

DSSSB Exam September 2025

Test Date	12/09/2025
Test Time	9:00 AM - 11:00 AM
Subject	TGT Computer Science

Section : General intelligence and Reasoning Ability

- Q.1** In this question, a statement is given, followed by two assumptions numbered I and II. You have to assume everything in the statement to be true and decide which of the assumptions is implicit in the statement.

Statement:

Roads of City B are congested due to high vehicle movement.

Assumptions:

I. Metro rail of City B also gets delayed due to congestion.

II. Influx of people to City B is higher than that to other cities of the country.

- Ans**
- ☒ 1. Neither assumption I nor II is implicit.
 - ☐ 2. Both assumptions I and II are implicit.
 - ☐ 3. Only assumption II is implicit.
 - ☐ 4. Only assumption I is implicit.

- Q.2** Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☐ 1. RVY
 - ☒ 2. INR
 - ☐ 3. CGJ
 - ☐ 4. MQT

- Q.3** This question is based on the following words.

(Left) REAL, FAIR, LIKE, PITY (Right)

In each of the words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. In how many letter-clusters thus formed, will no vowel appear?

- Ans**
- ☐ 1. One
 - ☒ 2. Two
 - ☐ 3. Four
 - ☐ 4. Three

- Q.4** Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

QIM 1 PLK 3 ? NRG 27 MUE 81

- Ans**
- ☒ 1. OOI 9
 - ☐ 2. OIN 7
 - ☐ 3. NOM 5
 - ☐ 4. MOI 6

Q.5 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All stones are rocks.

All rocks are pebbles.

Some stones are hills.

Conclusions:

(I) All rocks are hills.

(II) All pebbles are hills.

- Ans**
- ☒ 1. Neither conclusion (I) nor (II) follows.
 - ☐ 2. Only conclusion (I) follows.
 - ☐ 3. Both conclusions (I) and (II) follow.
 - ☐ 4. Only conclusion (II) follows.

Q.6 D is the sister of E. F is the mother of G. H is the daughter of G. E is the mother of H. How is D related to F?

- Ans**
- ☐ 1. Sister
 - ☒ 2. Son's wife's sister
 - ☐ 3. Mother
 - ☐ 4. Son's wife's mother

Q.7 Six students are sitting around a circular table, facing the centre. Himani is an immediate neighbour of both Evan and Charu. Gauri is sitting to the immediate right of Evan. Firoz is sitting second to the left of Himani. Danish is an immediate neighbour of both Firoz and Gauri. How many people sit between Danish and Himani when counted from the right of Himani?

- Ans**
- ☐ 1. One
 - ☐ 2. Four
 - ☐ 3. Three
 - ☒ 4. Two

Q.8 What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$34 - 20 \div 8 \times 2 + 16 = ?$$

- Ans**
- ☒ 1. 98
 - ☐ 2. 93
 - ☐ 3. 95
 - ☐ 4. 96

Q.9 Which of the given letter-number clusters will replace the question mark (?) in the following series to make it logically complete?

DWP 6, HAT 15, LEX 24, PIB 33, TMF 42, ?

- Ans**
- ☐ 1. XQI 51
 - ☒ 2. XQJ 51
 - ☐ 3. YQJ 51
 - ☐ 4. XAJ 51

Q.10 Select the triad which follows the same pattern as that followed by the triads given below.

EACH - HEAC - CHEA

HACK - KHAC - CKHA

- Ans**
- ☐ 1. SACK - ASKC - SKAC
 - ☐ 2. OAKS - AKSO - KSOA
 - ☐ 3. PACK - PKAC - PCKA
 - ☒ 4. LACE - ELAC - CELA

Q.11 What should come in place of the question mark (?) in the given series?

231 224 214 207 197 190 ?

- Ans**
-  1. 170
 -  2. 173
 -  3. 180
 -  4. 183

Q.12 Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operation on the second number results in the third number and so on. Which of the given options follows the same set of operations as in question? (NOTE – A two/three-digit number cannot be broken into individual digits for operations e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two-digit number cannot be broken into individual digits)

3 – 27 – 37 – 32 ; 8 – 72 – 82 – 77

- Ans**
-  1. 11 – 121 – 132 – 162
 -  2. 4 – 36 – 52 – 62
 -  3. 12 – 108 – 118 – 113
 -  4. 6 – 54 – 84 – 42

Q.13 If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '–', then what will come in place of the question mark (?) in the following equation?

9 D 35 C 48 B 30 A 12 = ?

- Ans**
-  1. 95
 -  2. 92
 -  3. 96
 -  4. 94

Q.14 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
-  1. KGNQ
 -  2. VRYB
 -  3. AWDG
 -  4. SOWY

Q.15 This question is based on the following four words.

(Left) RAT ANT FAN TON (Right)

In each of the given words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. In how many letter-clusters thus formed will no vowel appear?

- Ans**
-  1. Two
 -  2. Three
 -  3. Four
 -  4. One

Q.16 In a certain code language, 'TYRE' is coded as '5127' and 'TREK' is coded as '7253'. What is the code for 'K' in the given code language?

- Ans**
-  1. 7
 -  2. 5
 -  3. 2
 -  4. 3

Q.17 Mr. E starts from Point A and drives 12 km towards the North. He then takes a right turn, drives 6 km, turns right and drives 9 km. He then takes a left turn, drives 12 km, turns right and drives 6 km. He then takes a right turn and drives 21 km. He takes a final right turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified)

- Ans**
- ☒ 1. 3 km to the east
 - ☐ 2. 5 km to the west
 - ☐ 3. 6 km to the south
 - ☐ 4. 4 km to the north

Q.18 Seven boxes, P, Q, R, S, T, Y and Z, are kept one over the other but not necessarily in the same order. T is kept second from the top. Only three boxes are kept between P and T. Y is kept at one of the positions below P. Only Q is kept between T and R. S is kept at one of the positions above T. How many boxes are kept between R and Y?

- Ans**
- ☒ 1. Two
 - ☐ 2. Four
 - ☐ 3. One
 - ☐ 4. Three

Q.19 Reena ranked 7th from the top and 28th from the bottom in her class. How many students are there in the class?

- Ans**
- ☐ 1. 36
 - ☐ 2. 35
 - ☐ 3. 33
 - ☒ 4. 34

Q.20 206 is related to 135 following a certain logic. Following the same logic, 178 is related to 107. To which of the given options is 194 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding to/subtracting from/multiplying with 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- Ans**
- ☐ 1. 117
 - ☐ 2. 127
 - ☐ 3. 133
 - ☒ 4. 123

Section : **General Awareness**

Q.1 Who designed the impressive Albert Hall building in Jaipur, India, in the Indo-Saracenic style?

- Ans**
- ☐ 1. Charles Correa
 - ☐ 2. Edwin Lutyens
 - ☒ 3. Samuel Swinton Jacob
 - ☐ 4. Le Corbusier

Q.2 In February 2025, Rekha Gupta took oath as the Chief Minister of _____.

- Ans**
- ☐ 1. Rajasthan
 - ☒ 2. Delhi
 - ☐ 3. Madhya Pradesh
 - ☐ 4. Andhra Pradesh

Q.3 Which of the following Fundamental Duties of the Indian Constitution was inserted through the 86th Constitutional Amendment Act of 2002?

- Ans**
- ☒ 1. To provide opportunities for education to his child or as the case may be, ward between the age of six and fourteen years
 - ☐ 2. To safeguard public property and to abjure violence
 - ☐ 3. To value and preserve the rich heritage of our composite culture
 - ☐ 4. To develop the scientific temper, humanism and the spirit of inquiry and reform

Q.4 Which of the following stages are involved in beer-production?

- Ans**
- ☐ 1. Fermentation and brewing only
 - ☐ 2. Fermentation and finishing only
 - ☒ 3. Malting, brewing and fermentation
 - ☐ 4. Brewing and pasteurisation only

Q.5 Which of the following equations correctly represents the calculation of speed?

- Ans**
- ☐ 1. Speed = Mass $\times$ Acceleration
 - ☐ 2. Speed = Energy / Time
 - ☒ 3. Speed = Distance / Time
 - ☐ 4. Speed = Force $\times$ Time

Q.6 In which type of forests are Sal, Shisham and Hurra trees found in India?

- Ans**
- ☐ 1. Tropical thorn forests
 - ☐ 2. Tropical evergreen forests
 - ☒ 3. Tropical deciduous forests
 - ☐ 4. Littoral and swamp forests

Q.7 According to Article 165, which of the following qualifications is required for a person to be appointed as the Advocate General of a State?

- Ans**
- ☐ 1. Qualified to be appointed a Judge of a District Court
 - ☒ 2. Qualified to be appointed a Judge of a High Court
 - ☐ 3. Qualified to be appointed a Judge of the Supreme Court
 - ☐ 4. Qualified to be appointed a Magistrate

Q.8 Narasimham Committee-1998 is related to _____.

- Ans**
- ☐ 1. educational reform
 - ☒ 2. banking sector reform
 - ☐ 3. police reform
 - ☐ 4. agricultural reform

Q.9 The prestigious National School Games 2024, known for showcasing young athletic talent (Under 17) from across the country, were hosted in which state?

- Ans**
- ☒ 1. Uttar Pradesh
 - ☐ 2. Maharashtra
 - ☐ 3. Gujarat
 - ☐ 4. Punjab

Q.10 Kabini and Bhavani are tributaries of the _____ river.

- Ans**
- ☒ 1. Kaveri
 - ☐ 2. Narmada
 - ☐ 3. Indus
 - ☐ 4. Godavari

Q.11 Who among the following was one of the founders of the 'Hindustan Republican Association' in 1924?

- Ans**
- ☐ 1. Surya Sen
 - ☒ 2. Ram Prasad Bismil
 - ☐ 3. Bir Tikendrajit Singh
 - ☐ 4. Lala Lajpat Rai

Q.12 The unit of force is different from the unit of _____.

- Ans**
- ☐ 1. pressure $\times$ area
 - ☐ 2. weight
 - ☒ 3. rate of change of angular momentum
 - ☐ 4. mass $\times$ acceleration

Q.13 Which country banned the entry of the UN Secretary-General António Guterres in October 2024 for 'failing' to condemn Iran's attack?

- Ans**
- ☒ 1. Israel
 - ☐ 2. Oman
 - ☐ 3. Thailand
 - ☐ 4. Turkmenistan

Q.14 Which of the following statements regarding quantum science and technology are correct?

1. The United Nations has designated 2025 as the International Year of Quantum Science and Technology, marking the centenary of quantum mechanics.
2. The National Quantum Mission, launched in 2023, focusses on scaling up scientific and industrial research and development in quantum technology.
3. Quantum Computing Applications Lab (QCAL) aims to accelerate research in quantum computing and facilitate new scientific discoveries.

- Ans**
- ☒ 1. 1, 2 and 3
 - ☐ 2. 2 and 3 only
 - ☐ 3. 1 and 3 only
 - ☐ 4. 1 and 2 only

Q.15 Which of the following books was NOT written by Jhumpa Lahiri?

- Ans**
- ☐ 1. Whereabouts
 - ☐ 2. The Lowland
 - ☐ 3. Unaccustomed Earth
 - ☒ 4. The Ministry of Utmost Happiness

Q.16 As per the Provision of _____ of the Indian Constitution, the Lok Sabha is the lower house of the Parliament.

- Ans**
- ☒ 1. Article 79
 - ☐ 2. Article 87
 - ☐ 3. Article 56
 - ☐ 4. Article 64

Q.17 During which of the following years was gender budgeting introduced in India?

- Ans**
- ☒ 1. 2005-2006
 - ☐ 2. 1986-1987
 - ☐ 3. 1972-1973
 - ☐ 4. 1965-1966

Q.18 Which of the following is a rabi crop?

- Ans**
- ☐ 1. Cotton
 - ☐ 2. Tur
 - ☐ 3. Maize
 - ☒ 4. Rapeseed

Q.19 Which animal is renowned for its ability to regenerate lost body parts?

- Ans**
- ☒ 1. Zebrafish
 - ☐ 2. Dog
 - ☐ 3. Snail
 - ☐ 4. Eagle

Q.20 In which year did Babasaheb Ambedkar organise a non-violent struggle for entry into the Kala Ram Temple in Nasik?

- Ans**
- ☒ 1. 1930
 - ☐ 2. 1921
 - ☐ 3. 1925
 - ☐ 4. 1934

Section : **Arithmetical and Numerical Ability**

Q.1 The curved surface area of a cylinder is 880 cm. If the circumference of its base is 88 cm, find its volume. (Use $\pi = \frac{22}{7}$)

- Ans**
- ☐ 1. 6120 cm³
 - ☒ 2. 6160 cm³
 - ☐ 3. 6180 cm³
 - ☐ 4. 6140 cm³

Q.2 The speed of a stream is 3 km/hr. A person can row 26 km downstream in the same time as he can row 14 km upstream. Find the speed of the boat in still water (in km/hr).

- Ans**
- ☐ 1. 8
 - ☐ 2. 7
 - ☒ 3. 10
 - ☐ 4. 9

Q.3 Amit's income in 2019 was ₹24,100. He gets an increment of 30% every year. What was his income (in ₹) in 2021?

- Ans**
- ☒ 1. 40,729
 - ☐ 2. 24,100
 - ☐ 3. 31,330
 - ☐ 4. 38,560

Q.4 Three men complete a work in 27 hours. In how many hours will 9 men complete the same work?

- Ans**
- ☐ 1. 30
 - ☒ 2. 9
 - ☐ 3. 3
 - ☐ 4. 81

Q.5 Pinki is twice as competent a worker as Sabina. Sabina can complete a task in 48 days. If Pinki and Sabina work together, the time it will take to finish the work is:

- Ans**
- ☐ 1. 17.9 days
 - ☐ 2. 18 days
 - ☒ 3. 16 days
 - ☐ 4. 18.6 days

Q.6 Amit purchased 10 kg of rice at the rate of ₹38 per kg and 32 kg of rice at ₹46 per kg. He sold the whole mixture at the rate of ₹43 per kg. Find his loss (in ₹).

- Ans**
- ☐ 1. 51
 - ☒ 2. 46
 - ☐ 3. 41
 - ☐ 4. 54

Q.7 Sapna invested ₹21,300 on simple interest, partly at 7% per annum and partly at 13% per annum. If she earns equal interests from the two investments after 5 years, then find the sum (in ₹) invested at 7% per annum.

- Ans**
- ☐ 1. 13,846
 - ☒ 2. 13,845
 - ☐ 3. 13,847
 - ☐ 4. 13,843

Q.8 Simplify: $\sqrt[5]{729} + \sqrt[4]{6561} + \sqrt[3]{6859} + \sqrt{8649}$

- Ans
- ☒ 1. 124
 - ☐ 2. 107
 - ☐ 3. 58
 - ☐ 4. 152

Q.9 A person borrows ₹87,900 at 10% compound interest per year, compounded annually. At the end of every year, he pays ₹9,900 as part payment. How much does he still owe after two such instalments?

- Ans
- ☐ 1. ₹85,382
 - ☐ 2. ₹85,439
 - ☒ 3. ₹85,569
 - ☐ 4. ₹85,556

Q.10 The value of $2.5555... + 1.2727... - 1.8888...$ is:

- Ans
- ☐ 1. $\frac{61}{39}$
 - ☐ 2. $\frac{60}{35}$
 - ☐ 3. $\frac{62}{39}$
 - ☒ 4. $\frac{64}{33}$

Q.11 The average marks of 16 students in a class is 53. If the marks of each student are doubled, find the new average.

- Ans
- ☒ 1. 106
 - ☐ 2. 32
 - ☐ 3. 53
 - ☐ 4. 16

Q.12 A shopkeeper lists the price of a fan at 50% above its cost price and offers a 30% discount on its list price. If he earns a profit of ₹159, then what is the list price (in ₹) of the fan?

- Ans
- ☐ 1. 4,657
 - ☒ 2. 4,770
 - ☐ 3. 4,741
 - ☐ 4. 4,951

Q.13 A garrison of 1210 men has provisions for 15 days. How long (in days) will the provisions last if the garrison is increased to 1815 men?

- Ans
- ☐ 1. 11
 - ☐ 2. 12
 - ☐ 3. 9
 - ☒ 4. 10

Q.14 The area of a square plot is 38809 m^2 . The length of each side of the plot (in m) is:

- Ans
- ☐ 1. 217
 - ☐ 2. 173
 - ☒ 3. 197
 - ☐ 4. 203

Q.15 The average price of three items of furniture is ₹17,295. If their prices are in the ratio 3 : 5 : 7, the price of the costliest item (in ₹) is:

- Ans**
- ☒ 1. 24,213
 - ☐ 2. 5,765
 - ☐ 3. 10,377
 - ☐ 4. 8,071

Q.16 Water flows out through a circular pipe whose internal diameter is 2 cm, at the rate of 2 metres per second into a cylindrical tank with base radius of 50 cm. By how much will the level of water rise in the tank in 20 minutes?

- Ans**
- ☐ 1. 94 cm
 - ☐ 2. 93 cm
 - ☐ 3. 91 cm
 - ☒ 4. 96 cm

Q.17 Simplify: $(96 \div 4) \times \left\{ \frac{18}{6} + \frac{34}{3} \times (9 - 6) \right\}$

- Ans**
- ☐ 1. 901
 - ☒ 2. 888
 - ☐ 3. 895
 - ☐ 4. 896

Q.18 Convert 4.6833333... into a fraction.

- Ans**
- ☒ 1. $\frac{281}{60}$
 - ☐ 2. $\frac{209}{65}$
 - ☐ 3. $\frac{185}{77}$
 - ☐ 4. $\frac{247}{55}$

Q.19 There are 7597 students in a school and the ratio of boys to girls is 50 : 21. Find the number of boys in the school.

- Ans**
- ☐ 1. 5359
 - ☐ 2. 5333
 - ☒ 3. 5350
 - ☐ 4. 5367

Q.20 The price of fuel decreases by 30%, 20% and 10% in three successive months, but increases by 65% in the fourth month. What is the percentage increase/decrease in the price of fuel in the fourth month as compared to its original price?

- Ans**
- ☒ 1. Decreases by 16.84%
 - ☐ 2. Increases by 21.97%
 - ☐ 3. Decreases by 19.82%
 - ☐ 4. Increases by 20.21%

Section : **Test of English Language and Comprehension**

Q.1 Sentences of a paragraph are given below. While the first and the last sentences (S1 and S6) are in the correct order, the sentences in between are jumbled up. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

S1. Yes, a mirage can be photographed.

P. That is hallucination.

Q. Anything reflected by the lens of the human eye will naturally be picked up by photographic lens.

R. Sometimes, however, a person imagines he is seeing something but actually he is not.

S. The image, of course, will be hazy and simmering because of refraction of light.

S6. That kind of mirage obviously cannot be photographed.

- Ans
- ☒ 1. QRPS
 - ☒ 2. SPRQ
 - ☒ 3. PSQR
 - ☒ 4. QSRP

Q.2 Select the option that can be used as a one-word substitute for the given group of words.

A thing no longer in use

- Ans
- ☒ 1. Held
 - ☒ 2. Obsolete
 - ☒ 3. Waste
 - ☒ 4. New

Q.3 Select the most appropriate meaning of the given proverb.

Don't put all your eggs in one basket

- Ans
- ☒ 1. Diversify your risks to avoid complete loss
 - ☒ 2. Save your resources for future use
 - ☒ 3. Simplicity leads to better decisions
 - ☒ 4. Avoid multitasking to achieve better results

Q.4 Select the most appropriate one-word substitute for the group of words given in the brackets to fill in the blank.

Sita has a high knowledge of music, which she has acquired from her grandmother who was a renowned musician. So, her father calls her a/an _____ (a person with a good knowledge of music).

- Ans
- ☒ 1. amateur
 - ☒ 2. beginner
 - ☒ 3. incompetent
 - ☒ 4. maestro

Q.5 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

The number and proportion of people aged 60 years and older in _____ population is increasing.

- Ans
- ☒ 1. an
 - ☒ 2. the
 - ☒ 3. a
 - ☒ 4. No article required

Q.6 Select the most appropriate ANTONYM of the underlined word in the given sentence.

My friend Sita has impeccable manners.

- Ans
- ☒ 1. Immaculate
 - ☒ 2. Unblemished
 - ☒ 3. Imperfect
 - ☒ 4. Seamless

Q.7 Select the most appropriate option to fill in the blank.

Each of the players _____ awarded a trophy.

- Ans**
- ☒ 1. have
 - ☒ 2. are
 - ☒ 3. was
 - ☒ 4. were

Q.8 Select the most appropriate synonym of the given word.

Draconian

- (A) Lenient
- (B) Clement
- (C) Benignant
- (D) Vicious

- Ans**
- ☒ 1. A
 - ☒ 2. B
 - ☒ 3. D
 - ☒ 4. C

Q.9 Select the correct spelling of the incorrectly spelt word in the given sentence.

He gave a detailed recomendation for the new policy.

- Ans**
- ☒ 1. recommendation
 - ☒ 2. reccommendation
 - ☒ 3. recomendation
 - ☒ 4. recomendition

Q.10 Select the most appropriate option to fill in the blanks.

_____ sudden change in weather caused _____ unexpected delay in the flight.

- Ans**
- ☒ 1. A; a
 - ☒ 2. An; a
 - ☒ 3. A; an
 - ☒ 4. An; an

Q.11 Identify the INCORRECTLY spelt word in the given sentence and select the option that rectifies it.

Many metals that react to the vaccuum which electron-beam requires for the generation of intense heat cannot be welded properly.

- Ans**
- ☒ 1. electron-beem
 - ☒ 2. wellded
 - ☒ 3. vacuum
 - ☒ 4. intence

Q.12 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

- A. It is known for its elaborate, traditional dancing.
- B. Bali is the capital of Indonesia.
- C. The dancing is inspired by its Hindi beliefs.
- D. To watch this dancing is a breathtaking experience.

- Ans**
- ☒ 1. BADC
 - ☒ 2. DCBA
 - ☒ 3. ABCD
 - ☒ 4. BACD

Q.13 Select the most appropriate meaning of the given proverb.

Don't count your chickens before they hatch

- Ans**
- ☒ 1. Avoid making assumptions about future
 - ☐ 2. Focus on small goals before aiming higher
 - ☐ 3. Planning for the future guarantees results
 - ☐ 4. Prepare in advance for better results

Q.14 Select the most appropriate option to fill in the blank.

Despite his extensive knowledge, he has no real insight _____ how human emotions work under extreme stress.

- Ans**
- ☐ 1. on
 - ☐ 2. with
 - ☐ 3. over
 - ☒ 4. into

Q.15 Select the most appropriate option to fill in the blank.

He worked _____ for his success.

- Ans**
- ☒ 1. hard
 - ☐ 2. hardly
 - ☐ 3. harder
 - ☐ 4. hardest

Comprehension:

Read the given passage and answer the questions that follow.

In the age of algorithmic decision-making, predictive governance has emerged as a dominant paradigm for public administration. Governments are increasingly deploying data-driven models to pre-empt criminal activity, optimise urban planning, and forecast economic volatility. While ostensibly rational, this model introduces a paradox: the more predictive power a system accumulates, the more it flattens human agency into statistical probabilities. The future becomes not an open horizon but a quantifiable extension of past behaviours. This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets — and institutionalising bias under the guise of objectivity. Moreover, the ethical oversight of such systems lags far behind their deployment, creating a governance vacuum wherein accountability is outsourced to opaque algorithms. In prioritising efficiency and foresight, predictive governance often bypasses deliberative democracy, weakening participatory channels in favour of streamlined outcomes.

Citizens are recast as data points, their individual complexities reduced to patterns in a machine-readable format. This mechanistic interpretation of society may inadvertently erode trust in institutions that no longer appear responsive but merely anticipatory. Therefore, the question is not only whether predictive systems function but also for whom they function — and who is excluded by their logic. A governance structure that projects authority through prediction must be tempered by transparent frameworks, ethical scrutiny, and above all, a reaffirmation of the human condition as more than a predictable variable.

SubQuestion No : 16

Q.16 What best summarises the passage?

- Ans**
- ☐ 1. Predictive governance enhances citizen engagement through efficient data systems.
 - ☐ 2. Predictive models have revolutionised public administration with minimal drawbacks.
 - ☒ 3. While predictive governance improves foresight, it risks diminishing human agency and democratic processes.
 - ☐ 4. Algorithms have no place in governance due to their inherent inaccuracies.

Comprehension:

Read the given passage and answer the questions that follow.

In the age of algorithmic decision-making, predictive governance has emerged as a dominant paradigm for public administration. Governments are increasingly deploying data-driven models to pre-empt criminal activity, optimise urban planning, and forecast economic volatility. While ostensibly rational, this model introduces a paradox: the more predictive power a system accumulates, the more it flattens human agency into statistical probabilities. The future becomes not an open horizon but a quantifiable extension of past behaviours. This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets — and institutionalising bias under the guise of objectivity. Moreover, the ethical oversight of such systems lags far behind their deployment, creating a governance vacuum wherein accountability is outsourced to opaque algorithms. In prioritising efficiency and foresight, predictive governance often bypasses deliberative democracy, weakening participatory channels in favour of streamlined outcomes.

Citizens are recast as data points, their individual complexities reduced to patterns in a machine-readable format. This mechanistic interpretation of society may inadvertently erode trust in institutions that no longer appear responsive but merely anticipatory. Therefore, the question is not only whether predictive systems function but also for whom they function — and who is excluded by their logic. A governance structure that projects authority through prediction must be tempered by transparent frameworks, ethical scrutiny, and above all, a reaffirmation of the human condition as more than a predictable variable.

SubQuestion No : 17

Q.17 What is the central theme of the passage?

- Ans**
- ☒ 1. The ethical and democratic implications of data-driven governance
 - ☐ 2. The technical limitations of predictive models
 - ☐ 3. The superiority of algorithmic decision-making in policy
 - ☐ 4. The future of AI in economics

Comprehension:

Read the given passage and answer the questions that follow.

In the age of algorithmic decision-making, predictive governance has emerged as a dominant paradigm for public administration. Governments are increasingly deploying data-driven models to pre-empt criminal activity, optimise urban planning, and forecast economic volatility. While ostensibly rational, this model introduces a paradox: the more predictive power a system accumulates, the more it flattens human agency into statistical probabilities. The future becomes not an open horizon but a quantifiable extension of past behaviours. This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets — and institutionalising bias under the guise of objectivity. Moreover, the ethical oversight of such systems lags far behind their deployment, creating a governance vacuum wherein accountability is outsourced to opaque algorithms. In prioritising efficiency and foresight, predictive governance often bypasses deliberative democracy, weakening participatory channels in favour of streamlined outcomes.

Citizens are recast as data points, their individual complexities reduced to patterns in a machine-readable format. This mechanistic interpretation of society may inadvertently erode trust in institutions that no longer appear responsive but merely anticipatory. Therefore, the question is not only whether predictive systems function but also for whom they function — and who is excluded by their logic. A governance structure that projects authority through prediction must be tempered by transparent frameworks, ethical scrutiny, and above all, a reaffirmation of the human condition as more than a predictable variable.

SubQuestion No : 18

Q.18 What best describes the structure of the passage?

- Ans**
- ☐ 1. Problem → Historical Context → Solution
 - ☐ 2. Anecdote → Research Findings → Political Critique
 - ☒ 3. Concept Introduction → Benefits → Risks → Philosophical Reflection
 - ☐ 4. Case Study → Rebuttal → Policy Proposal

Comprehension:

Read the given passage and answer the questions that follow.

In the age of algorithmic decision-making, predictive governance has emerged as a dominant paradigm for public administration. Governments are increasingly deploying data-driven models to pre-empt criminal activity, optimise urban planning, and forecast economic volatility. While ostensibly rational, this model introduces a paradox: the more predictive power a system accumulates, the more it flattens human agency into statistical probabilities. The future becomes not an open horizon but a quantifiable extension of past behaviours. This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets — and institutionalising bias under the guise of objectivity. Moreover, the ethical oversight of such systems lags far behind their deployment, creating a governance vacuum wherein accountability is outsourced to opaque algorithms. In prioritising efficiency and foresight, predictive governance often bypasses deliberative democracy, weakening participatory channels in favour of streamlined outcomes.

Citizens are recast as data points, their individual complexities reduced to patterns in a machine-readable format. This mechanistic interpretation of society may inadvertently erode trust in institutions that no longer appear responsive but merely anticipatory. Therefore, the question is not only whether predictive systems function but also for whom they function — and who is excluded by their logic. A governance structure that projects authority through prediction must be tempered by transparent frameworks, ethical scrutiny, and above all, a reaffirmation of the human condition as more than a predictable variable.

SubQuestion No : 19

Q.19 Which real-world issue best parallels the concerns raised in the passage?

- Ans**
- ☒ 1. International trade agreements excluding local voices
 - ☒ 2. The privatisation of education in developing countries
 - ☒ 3. The automation of social welfare decisions via predictive analytics
 - ☒ 4. Judicial delays in underfunded rural courts

Comprehension:

Read the given passage and answer the questions that follow.

In the age of algorithmic decision-making, predictive governance has emerged as a dominant paradigm for public administration. Governments are increasingly deploying data-driven models to pre-empt criminal activity, optimise urban planning, and forecast economic volatility. While ostensibly rational, this model introduces a paradox: the more predictive power a system accumulates, the more it flattens human agency into statistical probabilities. The future becomes not an open horizon but a quantifiable extension of past behaviours. This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets — and institutionalising bias under the guise of objectivity. Moreover, the ethical oversight of such systems lags far behind their deployment, creating a governance vacuum wherein accountability is outsourced to opaque algorithms. In prioritising efficiency and foresight, predictive governance often bypasses deliberative democracy, weakening participatory channels in favour of streamlined outcomes.

Citizens are recast as data points, their individual complexities reduced to patterns in a machine-readable format. This mechanistic interpretation of society may inadvertently erode trust in institutions that no longer appear responsive but merely anticipatory. Therefore, the question is not only whether predictive systems function but also for whom they function — and who is excluded by their logic. A governance structure that projects authority through prediction must be tempered by transparent frameworks, ethical scrutiny, and above all, a reaffirmation of the human condition as more than a predictable variable.

SubQuestion No : 20

Q.20 Select the most appropriate ANTONYM of the word 'marginalising' as used in the given segment.

This techno-bureaucratic reliance risks marginalising outliers — those whose experiences fall outside normative data sets

- Ans**
- ☒ 1. Isolating
 - ☒ 2. Integrating
 - ☒ 3. Suppressing
 - ☒ 4. Ignoring

Section : Test of Hindi Language and Comprehension

Q.1 'उदयाचल' का विलोम शब्द निम्नलिखित में से कौन-सा होगा ?

- Ans**
- ☒ 1. अस्ताचल
 - ☒ 2. अरुणाचल
 - ☒ 3. पूर्वाचल
 - ☒ 4. सीमाचल

Q.2	निम्नलिखित में से अतिरिक्त उचित वाक्य का चयन करें – ‘विश्व के विशाल भू-भाग में-----’
Ans	 1. किनारा मिलना बहुत ही मुश्किल बात है ।  2. जिसमें अनेक नदियाँ अपने उद्गम से ।  3. सैकड़ों-हजारों मील का सफ़र तय कर मिलती हैं ।  4. बोली जाने वाली हिन्दी एक वेगवती नदी की भाँति है ।
Q.3	निम्नलिखित वाक्य के रेखांकित पद में वर्तनी संबंधी अशुद्धि है । दिए गए विकल्पों में से सही वर्तनी वाला शब्द चुनिए- उसने <u>हस्ताक्षर</u> किए
Ans	 1. हस्तक्षर  2. हश्ताक्षर  3. हाश्ताक्षर  4. हस्ताक्षर
Q.4	निम्नलिखित लोकोक्ति के उपयुक्त अर्थ का चयन करें बाप न मारे मेंढकी बेटा तीरंदाज़
Ans	 1. छोटी की आपस में मित्रता  2. अच्छे दिनों में सब दोस्त बनते हैं  3. चुप्पा बहुत चालक होता है  4. बड़े से छोटा बढ़ गया
Q.5	‘गिरगिट की तरह रंग बदलना’ मुहावरे का एक उचित अर्थ कौन सा नहीं है?
Ans	 1. एक रंग-ढंग न रखना ।  2. एक बात पर स्थिर न रहना ।  3. व्यर्थ समय खोना ।  4. काम निकल जाने पर वायदा पूरा न करना ।
Q.6	उपयुक्त 'विशेषण' का प्रयोग कर वाक्य को पूर्ण कीजिए । 'निताशी के फ्राक का रंग _____ है । '
Ans	 1. ऊपरी  2. दुबला  3. नीला  4. गीला
Q.7	'अनिष्ट' शब्द के उपयुक्त पर्यायवाची का चयन करें
Ans	 1. अपरिहार्य  2. अमंगल  3. अनिर्णीत  4. अधीर
Q.8	निम्नलिखित वाक्यांश के लिए एक शब्द का चयन कीजिए जो अपने निश्चित स्थान से ढिग गया हो
Ans	 1. दुर्बोध  2. चिरकुट  3. च्युत  4. देय
Q.9	निम्नलिखित वाक्य के रिक्त स्थान में उचित कारक का प्रयोग कीजिए- 'मोहन _____ तीन भाई हैं । '
Ans	 1. के  2. को  3. ने  4. के द्वारा

Q.10 निम्नलिखित वाक्य के रिक्त स्थान में उचित क्रिया की पूर्ति कीजिए -
' वह नरेन्द्र से कपड़े _____ ,

- Ans
- ☐ 1. गाता है ।
 - ☐ 2. पाया है ।
 - ☐ 3. पहचानता है ।
 - ☒ 4. धुलवाता है ।

Q.11 दिए गए वाक्यों में से तीन का संबंध एक ही संदर्भ से जुड़ा हुआ है, जबकि एक वाक्य अतिरिक्त है । इनमें से अतिरिक्त वाक्य का चयन करें

- Ans
- ☐ 1. हिंदी साहित्य में अनेक विधाएँ पाई जाती हैं, जैसे कविता, कहानी और नाटक ।
 - ☐ 2. आधुनिक हिंदी साहित्य में कई लेखक सामाजिक मुद्दों को अपने लेखन में स्थान दे रहे हैं ।
 - ☐ 3. मुंशी प्रेमचंद को हिंदी उपन्यास लेखन का पितामह माना जाता है ।
 - ☒ 4. क्रिकेट विश्व कप में भारत ने कई बार शानदार प्रदर्शन किया है ।

Q.12 'परीक्षा -----दिन नजदीक आ गए हैं ।' वाक्य के रिक्त स्थान के लिए उपयुक्त कारक चिह्न है-

- Ans
- ☐ 1. के लिए
 - ☐ 2. का
 - ☒ 3. के
 - ☐ 4. में

Q.13 उपयुक्त 'क्रियाविशेषण ' का प्रयोग कर वाक्य को पूर्ण कीजिए ।
' वह..... सड़क पार करता है । '

- Ans
- ☐ 1. देश -विदेश
 - ☒ 2. धीरे -धीरे
 - ☐ 3. यथाक्रम
 - ☐ 4. घर-बाहर

Q.14 'जिसकी गिनती प्रमुख व्यक्तियों में हो' वाक्यांश के लिए सार्थक शब्द होगा-

- Ans
- ☐ 1. मुख्यतः
 - ☒ 2. अग्रणी
 - ☐ 3. प्रमुखता
 - ☐ 4. अगड़ी

Q.15 दिए गए वाक्य के कसी भाग में त्रुटि है ?
'इन्दरियों को वश में रखना चाहिए ।'

- Ans
- ☒ 1. इन्दरियों
 - ☐ 2. वश
 - ☐ 3. को
 - ☐ 4. रखना

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

जनसंख्या घनत्व बढ़ने से महानगरों में तरह-तरह के प्रदूषण बढ़ रहे हैं । सबसे भीषण वायु प्रदूषण है । बड़े शहरों में लोग स्वस्थ हवा में साँस नहीं ले सकते । लोगों को सड़क पर चलते समय वाहनों का काला धुआँ पीना पड़ रहा है । भीड़ अधिक होने के कारण जगह-जगह कूड़े के ढेर लगे हैं । कल-कारखानों का धुआँ पर्यावरण को जहरीला बनाता है, इसलिए मनुष्य भी स्वच्छ हवा के लिए तरसता है । बड़े शहरों में जल प्रदूषण एक बड़ी समस्या बन गया है । कारखानों का पानी प्रदूषित होने से भू-जल भी लाल और काला हो गया है । ध्वनि प्रदूषण की वर्तमान स्थिति यह है कि महानगरों के निवासियों के लिए बहरापन और तनाव आम समस्या हो गई है और शांत स्थानों की जगह शोर ने ले ली है । इस संबंध में वैज्ञानिक साधनों की तरह आम लोग भी समान रूप से दोषी हैं । हमें प्रदूषण के कारणों और इससे बचने के तरीकों को समझना होगा । लोगों को सचेत करें और उपायों को व्यापक रूप से प्रचारित करें । सरकार और जनता का संयुक्त सहयोग ही प्रदूषण मुक्त वातावरण का निर्माण हो सकता है ।

SubQuestion No : 16

Q.16 उपर्युक्त गद्यांश का शीर्षक है –

- Ans
- ☐ 1. वैज्ञानिक साधनों का दुरुपयोग
 - ☒ 2. प्रदूषण के कारण, दुष्प्रभाव, बचाव
 - ☐ 3. पर्यावरण संरक्षण के उपाय
 - ☐ 4. जनसंख्या घनत्व के दुष्प्रभाव

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

जनसंख्या घनत्व बढ़ने से महानगरों में तरह-तरह के प्रदूषण बढ़ रहे हैं । सबसे भीषण वायु प्रदूषण है । बड़े शहरों में लोग स्वस्थ हवा में साँस नहीं ले सकते । लोगों को सड़क पर चलते समय वाहनों का काला धुआँ पीना पड़ रहा है । भीड़ अधिक होने के कारण जगह-जगह कूड़े के ढेर लगे हैं । कल-कारखानों का धुआँ पर्यावरण को जहरीला बनाता है, इसलिए मनुष्य भी स्वच्छ हवा के लिए तरसता है । बड़े शहरों में जल प्रदूषण एक बड़ी समस्या बन गया है । कारखानों का पानी प्रदूषित होने से भू-जल भी लाल और काला हो गया है । ध्वनि प्रदूषण की वर्तमान स्थिति यह है कि महानगरों के निवासियों के लिए बहारापन और तनाव आम समस्या हो गई है और शांत स्थानों की जगह शोर ने ले ली है । इस संबंध में वैज्ञानिक साधनों की तरह आम लोग भी समान रूप से दोषी हैं । हमें प्रदूषण के कारणों और इससे बचने के तरीकों को समझना होगा । लोगों को सचेत करें और उपायों को व्यापक रूप से प्रचारित करें । सरकार और जनता का संयुक्त सहयोग ही प्रदूषण मुक्त वातावरण का निर्माण हो सकता है ।

SubQuestion No : 17

Q.17 उपर्युक्त गद्यांश में किस प्रकार के पर्यावरण प्रदूषण का उल्लेख नहीं किया गया है –

- Ans
- ☒ 1. वायु प्रदूषण
 - ☒ 2. ध्वनि प्रदूषण
 - ☒ 3. भूमि प्रदूषण
 - ☒ 4. जल प्रदूषण

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

जनसंख्या घनत्व बढ़ने से महानगरों में तरह-तरह के प्रदूषण बढ़ रहे हैं । सबसे भीषण वायु प्रदूषण है । बड़े शहरों में लोग स्वस्थ हवा में साँस नहीं ले सकते । लोगों को सड़क पर चलते समय वाहनों का काला धुआँ पीना पड़ रहा है । भीड़ अधिक होने के कारण जगह-जगह कूड़े के ढेर लगे हैं । कल-कारखानों का धुआँ पर्यावरण को जहरीला बनाता है, इसलिए मनुष्य भी स्वच्छ हवा के लिए तरसता है । बड़े शहरों में जल प्रदूषण एक बड़ी समस्या बन गया है । कारखानों का पानी प्रदूषित होने से भू-जल भी लाल और काला हो गया है । ध्वनि प्रदूषण की वर्तमान स्थिति यह है कि महानगरों के निवासियों के लिए बहारापन और तनाव आम समस्या हो गई है और शांत स्थानों की जगह शोर ने ले ली है । इस संबंध में वैज्ञानिक साधनों की तरह आम लोग भी समान रूप से दोषी हैं । हमें प्रदूषण के कारणों और इससे बचने के तरीकों को समझना होगा । लोगों को सचेत करें और उपायों को व्यापक रूप से प्रचारित करें । सरकार और जनता का संयुक्त सहयोग ही प्रदूषण मुक्त वातावरण का निर्माण हो सकता है ।

SubQuestion No : 18

Q.18 निम्नलिखित में से कौन-सा एक कारण प्रदूषण का नहीं है -

- Ans
- ☒ 1. पर्यावरण संरक्षण अधिनियम
 - ☒ 2. वैज्ञानिक साधन
 - ☒ 3. जनसंख्या घनत्व
 - ☒ 4. औद्योगीकरण

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

जनसंख्या घनत्व बढ़ने से महानगरों में तरह-तरह के प्रदूषण बढ़ रहे हैं । सबसे भीषण वायु प्रदूषण है । बड़े शहरों में लोग स्वस्थ हवा में साँस नहीं ले सकते । लोगों को सड़क पर चलते समय वाहनों का काला धुआँ पीना पड़ रहा है । भीड़ अधिक होने के कारण जगह-जगह कूड़े के ढेर लगे हैं । कल-कारखानों का धुआँ पर्यावरण को जहरीला बनाता है, इसलिए मनुष्य भी स्वच्छ हवा के लिए तरसता है । बड़े शहरों में जल प्रदूषण एक बड़ी समस्या बन गया है । कारखानों का पानी प्रदूषित होने से भू-जल भी लाल और काला हो गया है । ध्वनि प्रदूषण की वर्तमान स्थिति यह है कि महानगरों के निवासियों के लिए बहारापन और तनाव आम समस्या हो गई है और शांत स्थानों की जगह शोर ने ले ली है । इस संबंध में वैज्ञानिक साधनों की तरह आम लोग भी समान रूप से दोषी हैं । हमें प्रदूषण के कारणों और इससे बचने के तरीकों को समझना होगा । लोगों को सचेत करें और उपायों को व्यापक रूप से प्रचारित करें । सरकार और जनता का संयुक्त सहयोग ही प्रदूषण मुक्त वातावरण का निर्माण हो सकता है ।

SubQuestion No : 19

Q.19 'घनत्व' शब्द का अर्थ है -

- Ans
- ☒ 1. घनापन
 - ☒ 2. घनाक्षरी
 - ☒ 3. घनागम
 - ☒ 4. घनात

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

जनसंख्या घनत्व बढ़ने से महानगरों में तरह-तरह के प्रदूषण बढ़ रहे हैं । सबसे भीषण वायु प्रदूषण है । बड़े शहरों में लोग स्वस्थ हवा में साँस नहीं ले सकते । लोगों को सड़क पर चलते समय वाहनों का काला धुआँ पीना पड़ रहा है । भीड़ अधिक होने के कारण जगह-जगह कूड़े के ढेर लगे हैं । कल-कारखानों का धुआँ पर्यावरण को जहरीला बनाता है, इसलिए मनुष्य भी स्वच्छ हवा के लिए तरसता है । बड़े शहरों में जल प्रदूषण एक बड़ी समस्या बन गया है । कारखानों का पानी प्रदूषित होने से भू-जल भी लाल और काला हो गया है । ध्वनि प्रदूषण की वर्तमान स्थिति यह है कि महानगरों के निवासियों के लिए बहारापन और तनाव आम समस्या हो गई है और शांत स्थानों की जगह शोर ने ले ली है । इस संबंध में वैज्ञानिक साधनों की तरह आम लोग भी समान रूप से दोषी हैं । हमें प्रदूषण के कारणों और इससे बचने के तरीकों को समझना होगा । लोगों को सचेत करें और उपायों को व्यापक रूप से प्रचारित करें । सरकार और जनता का संयुक्त सहयोग ही प्रदूषण मुक्त वातावरण का निर्माण हो सकता है ।

SubQuestion No : 20

Q.20 निम्नलिखित में से कौन-सा शब्द 'कल' का अनेकार्थी शब्द नहीं है –

- Ans
- ☒ 1. मशीन
 - ☒ 2. कक्ष
 - ☒ 3. चैन
 - ☒ 4. सुंदर

Q.1 If a process arrives at time 5, what is the latest possible time for it to start execution if there are no other processes in the system?

- Ans**
- ☐ 1. Time 6
 - ☐ 2. Time 4
 - ☐ 3. Time 0
 - ☒ 4. Time 5

Q.2 What does the XNOR gate output when A=1 and B=0?

- Ans**
- ☐ 1. B
 - ☐ 2. A
 - ☐ 3. 1
 - ☒ 4. 0

Q.3 What happens if a RST (reset) packet is received during the connection management process?

- Ans**
- ☐ 1. The connection remains active.
 - ☐ 2. The receiver sends another SYN packet.
 - ☐ 3. The sender continues retransmissions.
 - ☒ 4. The connection is immediately terminated.

Q.4 What is the ARP reply's scope in terms of message type?

- Ans**
- ☐ 1. Anycast
 - ☐ 2. Multicast
 - ☒ 3. Unicast
 - ☐ 4. Broadcast

Q.5 Which of the following describes the use of digital certificates in authentication?

- Ans**
- ☒ 1. They verify the identity of entities using public key infrastructure (PKI).
 - ☐ 2. They encrypt data transmissions.
 - ☐ 3. They store user passwords.
 - ☐ 4. They compress large files for secure transfer.

Q.6 What is the overall design of a database called?

- Ans**
- ☐ 1. Database Instance
 - ☒ 2. Database Schema
 - ☐ 3. Database Table
 - ☐ 4. Database Model

Q.7 Which of the following is NOT a benefit of distributed systems?

- Ans**
- ☒ 1. High communication latency
 - ☐ 2. Resource sharing
 - ☐ 3. Scalability
 - ☐ 4. Fault tolerance

Q.8 How does the receiver handle out-of-order frames in Selective Repeat?

- Ans**
- ☐ 1. Sends a cumulative acknowledgment
 - ☒ 2. Buffers them until all missing frames arrive
 - ☐ 3. Requests retransmission of all frames
 - ☐ 4. Discards them immediately

Q.9 _____ is NOT allowed in a SQL:1999 view definition.

- Ans**
- ☐ 1. Use of subqueries
 - ☒ 2. Use of ORDER BY clause
 - ☐ 3. Use of aggregate formulas
 - ☐ 4. Use of nested queries

Q.10 Which SQL statement is used to update data in a table?

- Ans**
- ☒ 1. UPDATE
 - ☐ 2. MODIFY
 - ☐ 3. SET
 - ☐ 4. CHANGE

Q.11 What does the TCP service model guarantee about the order of data delivery?

- Ans**
- ☐ 1. Data is delivered as fast as possible.
 - ☐ 2. Data is not guaranteed to arrive in any specific order.
 - ☒ 3. Data is delivered in the order it is transmitted.
 - ☐ 4. Data may arrive out of order and is handled by the application layer.

Q.12 Which of the following SQL expressions evaluates to TRUE, according to SQL-99?

- Ans**
- ☐ 1. NULL >= NULL returns UNKNOWN
 - ☐ 2. NULL <= NULL returns UNKNOWN
 - ☒ 3. NULL IS NULL returns TRUE
 - ☐ 4. NULL IS NULL returns FALSE

Q.13 Which of the following statements is false about universal logic gates?

- Ans**
- ☐ 1. All basic logic gates can be implemented through universal logic gates.
 - ☐ 2. NAND gate is known as universal logic gate.
 - ☒ 3. All basic logic gates cannot be implemented using universal logic gates.
 - ☐ 4. NOR gate is known as universal logic gate.

Q.14 Which technology is commonly used in Wi-Fi to enhance signal range and reliability?

- Ans**
- ☐ 1. WEP (Wired Equivalent Privacy)
 - ☐ 2. TDMA (Time Division Multiple Access)
 - ☒ 3. MIMO (Multiple Input Multiple Output)
 - ☐ 4. CDMA (Code Division Multiple Access)

Q.15 How does the Best Fit algorithm impact system performance?

- Ans**
- ☐ 1. It improves system performance by reducing memory wastage.
 - ☐ 2. It always improves system performance.
 - ☒ 3. It may reduce system performance due to increased search time for free blocks.
 - ☐ 4. It improves system performance by reducing external fragmentation.

Q.16 In public key cryptography, which key is used for decrypting a message encrypted with the public key?

- Ans**
- ☐ 1. A symmetric key
 - ☐ 2. Another public key
 - ☐ 3. The sender's private key
 - ☒ 4. The recipient's private key

Q.17 In an acyclic graph directory structure, what is a common method used to implement shared directories or files?

- Ans**
- ☒ 1. Symbolic (soft) links
 - ☐ 2. File duplication
 - ☐ 3. Directory pointers
 - ☐ 4. Hard links

Q.18 What is typically returned by the getpid system call in Unix-based operating systems?

- Ans**
- ☐ 1. The process ID of the kernel
 - ☐ 2. Process ID of the first process
 - ☒ 3. Process ID of the current process
 - ☐ 4. Process ID of the parent process

Q.19 Select the correct SQL statement which will correctly insert a new row into the Customer table with only the CustomerID, Name, and Product columns specified, assuming the table allows NULLs for other columns.

- Ans**
- ☐ 1. INSERT INTO Customer (101, 'Alice', 'Pen');
 - ☐ 2. INSERT INTO Customer VALUES (101, 'Alice', 'Pen');
 - ☒ 3. INSERT INTO Customer (CustomerID, Name, Product) VALUES (101, 'Alice', 'Pen');
 - ☐ 4. INSERT Customer SET CustomerID=101, Name='Alice', Product='Pen';

Q.20 In which scheduling algorithm does the disk head move in one direction, satisfying all requests until it reaches the end, and then reverses direction?

- Ans**
- ☐ 1. SSTF
 - ☒ 2. SCAN
 - ☐ 3. FCFS
 - ☐ 4. LOOK

Section : **Discipline2**

Q.1 What does the super keyword in Java do?

- Ans**
- ☒ 1. Refers to the parent class
 - ☐ 2. Used to define static variables
 - ☐ 3. Refers to the current object
 - ☐ 4. Refers to high performing objects

Q.2 What will be the output of the following code?

```
#include <stdio.h>
int main() {
    int x = -1, y = 0, z = 1;
    int result = (x > 0) ? x : (y == 0) ? z : y;
    printf("%d", result);
    return 0;
}
```

- Ans**
- ☐ 1. compile time error
 - ☐ 2. -1
 - ☐ 3. 0
 - ☒ 4. 1

Q.3 What happens when the following code executes?

```
#include <stdio.h>
int main() {
    char buffer[50];
    int n = sprintf(buffer, "Hello, World!");
    printf("%d %s", n, buffer);
    return 0;
}
```

- Ans**
- ☐ 1. Prints '12 Hello, World!'
 - ☒ 2. Prints '13 Hello, World!'
 - ☐ 3. Prints '12 Hello'
 - ☐ 4. Prints '13 Hello'

Q.4 Which of the following causes an infinite loop?

- Ans**
- ☐ 1. for (int i = 10; i > 5; i--) { }
 - ☐ 2. for (int i = 0; i < 10; i++) { }
 - ☒ 3. while (1) { }
 - ☐ 4. do { } while (0);

Q.5 What will be the output of the following code?

```
#include <stdio.h>
int main() {
int a = 10, b = 20;
int max = (a > b) ? a : b;
printf("%d", max);
return 0;
}
```

- Ans**
- ☐ 1. compile time error
 - ☐ 2. 30
 - ☐ 3. 10
 - ☒ 4. 20

Q.6 Which of the following statements is false about simplification of Boolean functions using Karnaugh Map technique?

- Ans**
- ☐ 1. In Karnaugh Map, you group adjacent squares in the form of power of two and try to cover as many minterms or maxterms as you can in one group.
 - ☐ 2. Karnaugh Map technique is used to simplify Sum of Product (SOP) form of Boolean functions.
 - ☐ 3. Karnaugh Map technique is used to simplify Product of Sum (POS) form of Boolean functions.
 - ☒ 4. In Karnaugh Map, the rows and columns are represented in binary code sequence.

Q.7 Which arithmetic operator has the highest precedence in C?

- Ans**
- ☒ 1. %
 - ☐ 2. +
 - ☐ 3. -
 - ☐ 4. =

Q.8 Which of the following is true about nested switch statements in C?

- Ans**
- ☒ 1. A switch statement can contain another switch statement inside any of its cases.
 - ☐ 2. A switch statement cannot contain another switch.
 - ☐ 3. Inner switch cases should not contain break statement
 - ☐ 4. Both inner and outer switch statements must have a default case.

Q.9 What will be the output of the following code snippet?

```
#include<stdio.h>
int main() {
int a = 5, b = 3, c = 0;
if (a > b > c) {
printf("True\n");
} else {
printf("False\n");
}
return 0;
}
```

- Ans**
- ☐ 1. undefined behavior
 - ☐ 2. compile time error
 - ☒ 3. TRUE
 - ☐ 4. FALSE

Q.10 What does the below code snippet represent?
myObject.doActivity();

- Ans**
- ☐ 1. Sending a message to the child class of myObject
 - ☒ 2. Calling a method named doActivity on the object myObject
 - ☐ 3. Creating an object myObject
 - ☐ 4. Sending a message to the doActivity class

Q.11 What is the output of the following code?

```
#include <stdio.h>
int main() {
    int i = 5;
    do {
        printf("%d ", i);
        i--;
    } while (i > 5);
    return 0;
}
```

Ans  1. No output printed

 2. 5

 3. 5 4 3 2 1

 4. Infinite loop

Q.12 Which of the following techniques can be used to modify the actual variable passed to a function?

Ans  1. Pass the address of the actual parameters to function.

 2. Pass a copy of the actual parameter to function.

 3. Use a local variable instead of passing any parameters.

 4. Standard C has no options for modifying actual variables passed to a function.

Q.13 What is the 2's complement of the binary number 1100?

Ans  1. 1111

 2. 0100

 3. 1001

 4. 11

Q.14 What does the first dimension and the second dimension represents in a two-dimensional character array?

Ans  1. The first dimension represents the maximum length of the names, and the second dimension represents the number of names.

 2. The first dimension holds the total number of characters, and the second dimension stores the number of names.

 3. The first dimension stores the length of each name, and the second stores the number of names.

 4. The first dimension represents the number of names in the array, and the second dimension represents the maximum length of each name.

Q.15 Given the following code snippet, what is the value of the variable c?

```
int a, b, c;
a = b = c = 15;
c = c + 10;
```

Ans  1. 15

 2. 10

 3. Undefined

 4. 25

Q.16

```
public class ExceptionTest {
    public static void main(String[] args) {
        try {
            System.out.println("Result: " + calculate(10, 0));
        } catch (ArithmeticException e) {
            System.out.println("ArithmeticException caught: " + e.getMessage());
        } catch (Exception e) {
            System.out.println("General exception caught: " + e.getMessage());
        } finally {
            System.out.println("In finally block.");
        }
    }
}
```

```
public static int calculate(int a, int b) throws Exception {
    try {
        return a / b;
    } catch (ArithmeticException e) {
        throw new Exception("Division by zero not allowed");
    } finally {
        System.out.println("Inner finally block executed.");
    }
}
}
```

What will be the output of the program?

Ans  1. Inner finally block executed.

General exception caught: Division by zero not allowed

In finally block.

 2. Inner finally block executed. General exception caught: / by zero In finally block.

 3. Inner finally block executed.

Result: 0

In finally block.

 4. Inner finally block executed.

ArithmeticException caught: / by zero

In finally block.

Q.17 **What will be the output of the following program?**

```
class CustomException extends Exception {
    public CustomException(String message) {
        super(message);
    }
}

public class TestCustomException {
    public static void main(String[] args) {
        try {
            validateAge(15);
        } catch (CustomException e) {
            System.out.println("Caught Exception: " + e.getMessage());
        } finally {
            System.out.println("Execution finished.");
        }
    }

    public static void validateAge(int age) throws CustomException {
        if (age < 18) {
            throw new CustomException("Age must be 18 or above.");
        }
        System.out.println("Age is valid.");
    }
}
```

Ans  1. Compilation error because custom exceptions cannot extend Exception.

 2. Caught Exception: null

Execution finished.

 3. Caught Exception: Age must be 18 or above.

Execution finished.

 4. Age is valid.

Execution finished.

Q.18 How many times will the innermost loop execute in the below code?

```
#include <stdio.h>
int main() {
    for(int i=0; i<3; i++)
    {
        for(int j=0; j<2; j++)
        {
            printf("%d ",i);
        }
    }
    return 0;
}
```

- Ans
- ☐ 1. 2 times
 - ☒ 2. 6 times
 - ☐ 3. 3 times
 - ☐ 4. 5 times

Q.19 What is the objective of encapsulation in object-oriented programming?

- Ans
- ☐ 1. To enable one class to inherit from another class
 - ☐ 2. To allow objects to take multiple forms
 - ☒ 3. To combine data and methods that operate on that data within a single unit
 - ☐ 4. To create multiple instances of a class

Q.20

```
class Parent {
    protected void protectedMethod() {
        System.out.println("Protected method in Parent");
    }
}
```

```
class Child extends Parent {
    public void childMethod() {
        protectedMethod();
    }
}
```

```
public class Test {
    public static void main(String[] args) {
        Child child = new Child();
        child.childMethod();
    }
}
```

What will happen when the code is executed?

- Ans
- ☐ 1. Runtime Error: Cannot access protectedMethod from the Child class.
 - ☒ 2. The code will compile and print 'Protected method in Parent'.
 - ☐ 3. Compilation Error: The protectedMethod is not visible in the Child class.
 - ☐ 4. Compilation Error: childMethod is not visible due to access restrictions.

Section : Discipline3

Q.1 Which of the following statements is correct about the divide and conquer approach of binary search technique?

- Ans
- ☐ 1. The recurrence relation of binary search is written as $T(n) = 2T(n/2) + O(1)$, where n is the number of elements in the array.
 - ☒ 2. The worst-case time complexity of binary search is $O(\log n)$.
 - ☐ 3. The average-case time complexity of binary search is $O(n)$.
 - ☐ 4. The best-case time complexity of binary search is $O(\log n)$.

Q.2 Which of the following statements is INCORRECT about the storage classes in C?

- Ans
- ☐ 1. In Register storage class, the storage of a variable is CPU register.
 - ☐ 2. The scope of variable in automatic storage class is local to the block in which the variable is defined.
 - ☐ 3. In static storage class, the default initial value of the variable is zero.
 - ☒ 4. In Register storage class, the default initial value of the variable is zero.

Q.3 In singly linked list, each node of the list consists of _____.

- Ans**
- ☒ 1. NULL and address of the next node
 - ☒ 2. data value and address of next node
 - ☒ 3. NULL and address of the previous node
 - ☒ 4. data value and address of previous node

Q.4 What will be the output of the given C program?

```
#include <stdio.h>
int main()
{
{
int x = 10, y = 20;
{
{
int y = 40;
x++;
y++;
}
printf("x = %d, y = %d\n", x, y);
}
}
return 0;
}
```

- Ans**
- ☒ 1. x = 10, y = 20
 - ☒ 2. x = 11, y = 41
 - ☒ 3. x = 10, y = 41
 - ☒ 4. x = 11, y = 20

Q.5 Which of the following options is correct about the functions in C language?

- Ans**
- ☒ 1. Actual parameters are always variables.
 - ☒ 2. Actual parameters are the values that are passed to a function when it is called.
 - ☒ 3. Actual parameters are declared in the function definition.
 - ☒ 4. Actual parameters are used to define the function signature and to specify the type and number of arguments that a function can accept.

Q.6 What is the main function of the 'cutting' tool in image editing?

- Ans**
- ☒ 1. To apply color effects
 - ☒ 2. To resize the image
 - ☒ 3. To remove parts of the image
 - ☒ 4. To change the image resolution

Q.7 Which sorting technique is best for sorting a linked list with n elements?

- Ans**
- ☒ 1. Insertion sort
 - ☒ 2. Bubble sort
 - ☒ 3. Merge sort
 - ☒ 4. Selection sort

Q.8 What will be the output of the given C program?

```
#include <stdio.h>
int main() {
int a = 4;
int b = 3;
int result;
result = a ^ b;
printf("%d", result);
return 0;
}
```

- Ans**
- ☒ 1. 7
 - ☒ 2. 0
 - ☒ 3. 3
 - ☒ 4. 4

Q.9 Which of the following formats is commonly used for exporting images for the web?

- Ans**
- ☐ 1. PSD
 - ☐ 2. BMP
 - ☐ 3. TIFF
 - ☒ 4. PNG

Q.10 What is the output of the following JavaScript code?

```
let x = 10;  
if (x > 5) {  
  console.log("Greater");  
} else {  
  console.log("Smaller");  
}
```

- Ans**
- ☒ 1. "Greater"
 - ☐ 2. "Smaller"
 - ☐ 3. Error
 - ☐ 4. "undefined"

Q.11 Which of the following DHTML methods is used to change the style of an HTML element using CSS dynamically?

- Ans**
- ☐ 1. window.addEventListener("resize")
 - ☐ 2. document.createElement("style")
 - ☒ 3. element.style.backgroundColor = "red"
 - ☐ 4. document.getElementById("element").setCSS()

Q.12 What is the primary function of a web browser?

- Ans**
- ☐ 1. To send and receive emails
 - ☐ 2. To store large amounts of data
 - ☒ 3. To display and navigate web pages
 - ☐ 4. To create websites

Q.13 Which advantage of AJAX helps in reducing bandwidth consumption?

- Ans**
- ☐ 1. AJAX uses less JavaScript.
 - ☐ 2. AJAX increases data transfer.
 - ☒ 3. AJAX sends and retrieves only small amounts of data from the server.
 - ☐ 4. AJAX only loads images on the page.

Q.14 Which of the following cases DOES NOT exist when one computes the time complexity of an algorithm?

- Ans**
- ☐ 1. Best Case
 - ☒ 2. Test Case
 - ☐ 3. Worst case
 - ☐ 4. Average case

Q.15 Which of the following DHTML methods is used to control the browser window size, such as resizing it dynamically via JavaScript?

- Ans**
- ☒ 1. window.resizeTo()
 - ☐ 2. document.resizeWindow()
 - ☐ 3. window.setSize()
 - ☐ 4. window.changeSize()

Q.16 What will be the output of the C program given below?

```
#include <stdio.h>
int* func()
{
    static int arr[5] = { 1, 2, 3, 4, 5 };
    return arr;
}
int main()
{
    int* ptr = func();
    printf("Array Elements: ");
    for (int i = 0; i < 5; i++) {
        printf("%d ", *ptr);
    }
    return 0;
}
```

- Ans**
-  1. 1 1 3 4 1
 -  2. 1 2 3 4 5
 -  3. 1 1 1 1 1
 -  4. 2 3 4 5 0

Q.17 Which of the following is NOT a correct way of declaring and initializing array in C?

- Ans**
-  1. char arr[] = "consultancy";
 -  2. char arr[6] ={2};
 -  3. char arr[6];
 - arr = "consultancy";
 -  4. char arr[6] ={};

Q.18 Which tool is used to adjust the brightness and contrast of an image in Adobe Photoshop?

- Ans**
-  1. Selection tool
 -  2. Adjustments panel
 -  3. Healing brush tool
 -  4. Paint bucket tool

Q.19 Which of the following asymptotic notation gives asymptotically tight upper bound as well as asymptotically tight lower bound?

- Ans**
-  1. Small Omega (ω)
 -  2. Omega (Ω)
 -  3. Big Oh (O)
 -  4. Theta (Θ)

Q.20 Which of the following PHP functions is used to sort an array in ascending order without affecting the keys?

- Ans**
-  1. asort()
 -  2. array_sort()
 -  3. sort()
 -  4. ksort()

Q.1 On 15 December 2024, a fire occurred in the godown of M Ltd., and the entire stock was destroyed. The value of the stock salvaged was ₹3,00,000. The following transactions took place between 1 October 2024 and 15 December 2024. Study the table and answer the question that follows.

Purchases

Sales

Wages

Opening Stock

Gross Profit

The value of stock lost by fire was ____.

- Ans**
- ☐ 1. ₹5,92,000
 - ☐ 2. ₹2,55,000
 - ☒ 3. ₹6,30,000
 - ☐ 4. ₹6,75,000

Q.2 The magnetic moment of a bar magnet is ____ the magnetic moment of an equivalent solenoid if the solenoid's magnetic field is ____ that of the bar magnet.

- Ans**
- ☐ 1. less than ; same as
 - ☒ 2. equal to ; same as
 - ☐ 3. equal to ; different from
 - ☐ 4. more than ; same as

Q.3 MC Publications has received rent amounting to ₹2,50,000 during the financial year ending 31st March 2024. Out of this ₹50,000 represents rent relating to next financial year. The rent account to be credited to the profit and loss account for the year ended 31st March 2024 is _____ and the rent received in advance will be shown as a/an _____.

- Ans**
- ☐ 1. ₹3,00,000; Asset
 - ☒ 2. ₹2,00,000; Liability
 - ☐ 3. ₹2,00,000; Asset
 - ☐ 4. ₹1,50,000; Liability

Q.4 Two identical cells of emf = 1.5 V and internal resistance = 0.5 Ω are connected in series. If 1 A is the allowed current through the cell, the effective terminal potential difference of the cells is _____.

- Ans**
- ☒ 1. 2 V
 - ☐ 2. 1 V
 - ☐ 3. 0.5 V
 - ☐ 4. 0.75 V

Q.5 What will be the output of the following C program?

```
#include <stdio.h>
int main()
{
    int a[5];
    for (int i = 0; i < 5; i++)
    {
        a[i] = i * i - 2 * i + 1;
    }
    for (int i = 0; i < 5; i++)
    {
        printf("%d ", a[i]);
    }
    return 0;
}
```

- Ans**
- ☐ 1. 1 1 2 4 9
 - ☒ 2. 1 0 1 4 9
 - ☐ 3. 1 0 2 4 9
 - ☐ 4. 1 2 3 4 9

Q.6 What is the main purpose of virtual memory?

- Ans
- ☐ 1. To store BIOS settings
 - ☐ 2. To increase CPU speed
 - ☒ 3. To extend the physical memory using secondary storage
 - ☐ 4. To provide cache storage

Q.7 Which cycle is primarily managed by the Control Unit?

- Ans
- ☐ 1. Arithmetic cycle
 - ☒ 2. Instruction cycle (Fetch-Decode-Execute cycle)
 - ☐ 3. Memory refresh cycle
 - ☐ 4. I/O cycle

Q.8 The characteristic equation of matrix $A = \begin{bmatrix} 1 & 4 \\ 3 & 5 \end{bmatrix}$ is _____.

- Ans
- ☒ 1. $\lambda^2 - 6\lambda - 7 = 0$
 - ☐ 2. $\lambda^2 + 6\lambda + 7 = 0$
 - ☐ 3. $\lambda^2 - 6\lambda + 7 = 0$
 - ☐ 4. $\lambda^2 + 6\lambda - 7 = 0$

Q.9 Calculate the time complexity of deleting an element from the beginning of a dynamic array.

- Ans
- ☐ 1. $O(\log)$
 - ☐ 2. $O(\log n)$
 - ☒ 3. $O(n)$
 - ☐ 4. $O(1)$

Q.10 The total Purchases of ABC Ltd., during the FY 2024-25 was ₹1,90,000. If the gross profit of ABC Ltd. was 20% on sales and closing stock was more than the opening stock by ₹30,000 the gross profit earned by ABC Ltd., during the year 2024-25 was:

- Ans
- ☐ 1. ₹52,000.00
 - ☐ 2. ₹25,000.00
 - ☒ 3. ₹40,000.00
 - ☐ 4. ₹35,000.00

Q.11 The particular solution of the differential equation $(D^4 - 18D^2 + 81)y = 72e^{3x}$ is _____.

- Ans
- ☐ 1. $\frac{72 x^2 e^{3x}}{104}$
 - ☐ 2. $12 x^2 e^{3x}$
 - ☐ 3. $2 x^2 e^{3x}$
 - ☒ 4. $x^2 e^{3x}$

Q.12 Which logical operation does the ALU perform that results in a 1 output only when both inputs are different?

- Ans
- ☐ 1. NOR
 - ☐ 2. AND
 - ☐ 3. OR
 - ☒ 4. XOR

Q.13 Which of the following will terminate the loop immediately in C?

- Ans
- ☐ 1. When the loop condition is not given
 - ☐ 2. When a continue statement is encountered
 - ☒ 3. When a break statement is encountered
 - ☐ 4. When the loop variable reaches a certain value

Q.14

If $A = \begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 1 & 0 & 1 \end{bmatrix}$ then the matrix for A^6 is _____

Ans

✓ 1. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 6 & 0 & 1 \end{bmatrix}$

✗ 2. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 1 & 0 & 1 \end{bmatrix}$

✗ 3. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 6 & 0 & 1 \end{bmatrix}$

✗ 4. $\begin{bmatrix} 6 & 0 & 0 \\ 0 & 6 & 0 \\ 6 & 0 & 6 \end{bmatrix}$

Q.15 Which of the following is a key design goal of an Instruction Set Architecture?

Ans

- ✗ 1. Minimizing the transistor count
- ✓ 2. Balancing simplicity and performance for ease of programming and efficiency
- ✗ 3. Ensuring only complex instructions are supported
- ✗ 4. Maximizing the instruction decode time

Q.16 Which of the following options is the particular solution of the differential equation $y'' - 6y' + 9y = 2e^{3t}$?

Ans

- ✓ 1. $t^2 e^{3t}$
- ✗ 2. $\frac{e^{3t}}{9}$
- ✗ 3. $\frac{e^{3t}}{2}$
- ✗ 4. e^{3t}

Q.17 Which of the following is NOT a tertiary business activity?

Ans

- ✗ 1. Transportation
- ✗ 2. Warehousing
- ✗ 3. Insurance
- ✓ 4. Manufacturing

Q.18 Which of the following is true about the for loop in C?

Ans

- ✓ 1. The condition in a for loop is optional, and it can result in an infinite loop if omitted.
- ✗ 2. A for loop must always have all three components: initialization, condition, and increment/decrement.
- ✗ 3. The increment/decrement part of the for loop is mandatory.
- ✗ 4. A for loop cannot be nested inside another for loop.

Q.19 Which of the following is a disadvantage of singly linked list?

Ans

- ✗ 1. Deletion operation at the beginning of the linked list is performed in $O(1)$ time.
- ✗ 2. Linked lists have a variable size.
- ✓ 3. Accessing an element in a singly linked list requires traversal from the head, making it slower than arrays.
- ✗ 4. Insertion operation at the beginning of the linked list is performed in $O(1)$ time.

Q.20 Which of the following options is the differential equation corresponding to $y = ae^{2x} + be^{-x}$ where a and b are arbitrary?

- Ans**
- ☒ 1. $y'' - y' - 2y = 0$
 - ☐ 2. $y'' + y' - 2y = 0$
 - ☐ 3. $y'' + 2y' + y = 0$
 - ☐ 4. $y'' - 2y' + y = 0$

Section : **Discipline5**

Q.1 Select an appropriate ROM type from the options, where data can be erased or destroyed using ultraviolet light.

- Ans**
- ☐ 1. PROM
 - ☐ 2. EEPROM
 - ☐ 3. Flash ROM
 - ☒ 4. EPROM

Q.2 WhatsApp was founded by _____.

- Ans**
- ☐ 1. Larry Page and Sergey Brin
 - ☐ 2. Allan Musk and Bill Steve
 - ☒ 3. Jan Koum and Brian Acton
 - ☐ 4. Mark Zuckerberg and Sheryl Sandberg

Q.3 Select the INCORRECT option among the phases of the CPU Instruction Cycle.

- Ans**
- ☐ 1. Execute
 - ☐ 2. Fetch
 - ☐ 3. Store
 - ☒ 4. Encode

Q.4 Which of the following smileys express happiness in text communication?

- Ans**
- ☐ 1. : |
 - ☐ 2. : (
 - ☒ 3. :-)
 - ☐ 4. :-(

Q.5 How can you add an emoji to an email?

- Ans**
- ☐ 1. Reply to the email
 - ☐ 2. Use the delete key
 - ☐ 3. Change the font style
 - ☒ 4. Click the emoji icon in the toolbar

Q.6 Which of the following is an example of open-source application software?

- Ans**
- ☐ 1. CorelDRAW
 - ☐ 2. Microsoft Excel
 - ☐ 3. Adobe Illustrator
 - ☒ 4. GIMP

Q.7 Eighty eight residents of a city, who were interviewed in a city are classified as male or female and also as drinkers or non-drinkers of tea. For testing association between sex and drinking of tea, the test statistic follows:

- Ans**
- ☐ 1. t distribution with 1 degree of freedom
 - ☐ 2. Chi Square distribution with 2 degrees of freedom
 - ☐ 3. Normal distribution
 - ☒ 4. Chi square distribution with 1 degree of freedom

Q.8 Which of the following statement is correct for a business organisation?

- Ans**
- ☒ 1. Delegation leads to decentralisation
 - ☐ 2. Centralisation leads to autonomy
 - ☐ 3. Responsibility leads to decentralisation
 - ☐ 4. Authority leads to decentralisation

Q.9 What does the term 'bootstrapping' refer to in the context of starting a business?

- Ans**
- ☐ 1. Crowdfunding through online platforms
 - ☐ 2. Raising funds through venture capitalists
 - ☒ 3. Self-funding the business using personal resources
 - ☐ 4. Obtaining bank loans for initial capital

Q.10 Suppose a six faced die is thrown. Then the probability that the number appearing on the top is even is equal to:

- Ans**
- ☒ 1. $\frac{1}{2}$
 - ☐ 2. $\frac{1}{9}$
 - ☐ 3. $\frac{1}{6}$
 - ☐ 4. $\frac{1}{4}$

Section : **Teaching Methodology**

Q.1 _____ is a methodical approach. It suggests a logical and well-organised sequence of actions. It follows more steps.

- Ans**
- ☐ 1. Teaching technique
 - ☐ 2. Teaching method
 - ☒ 3. Teaching approach
 - ☐ 4. Teaching strategy

Q.2 You are designing a curriculum for vocational education. To ensure learners can transfer skills to actual work settings, which principle should you emphasise most?

- Ans**
- ☐ 1. Principle of articulation
 - ☐ 2. Principle of recency
 - ☒ 3. Principle of activity and practicality
 - ☐ 4. Principle of economy

Q.3 Diagnostic assessment mainly helps in which of the following?

- Ans**
- ☒ 1. Identifying misconceptions
 - ☐ 2. Standardising content
 - ☐ 3. Grading performance
 - ☐ 4. Promoting learners

Q.4 What is the core principle of the multilingual approach in early education?

- Ans**
- ☐ 1. Prioritising grammar over communication
 - ☐ 2. Replacing mother tongue with the target language quickly
 - ☐ 3. Teaching only in the national language
 - ☒ 4. Welcoming the child's language and using it to build understanding

Q.5 Gender inequality refers to which of the following?

- Ans**
- ☐ 1. Biological differences only
 - ☒ 2. Social and economic disparities between genders
 - ☐ 3. Differences in hairstyles
 - ☐ 4. Uniform distribution of resources

Q.6 Which law legally mandates the inclusion of children with disabilities into mainstream schools in India?

- Ans**
- ☐ 1. National Curriculum Framework, 2005
 - ☒ 2. RPwD Act, 2016
 - ☐ 3. NEP, 2020
 - ☐ 4. RTI Act, 2009

Q.7 Piaget's formal operational stage begins at approximately _____.

- Ans**
- ☒ 1. 11 years
 - ☐ 2. 14 years
 - ☐ 3. 7 years
 - ☐ 4. 8 years

Q.8 Which of the following is NOT one of the five steps in Herbartian lesson planning?

- Ans**
- ☒ 1. Evaluation
 - ☐ 2. Presentation
 - ☐ 3. Association
 - ☐ 4. Application

Q.9 Aesthetic education primarily develops _____.

- Ans**
- ☐ 1. factual knowledge
 - ☐ 2. speed in recall
 - ☐ 3. logical reasoning
 - ☒ 4. sensory responsiveness

Q.10 A 'subject' in school differs from a 'discipline' because it is _____.

- Ans**
- ☐ 1. more deeply systematic
 - ☒ 2. a classroom-taught branch of a discipline
 - ☐ 3. an external research domain
 - ☐ 4. a philosophical field

DSSSB Exam September 2025

Test Date	12/09/2025
Test Time	1:00 PM - 3:00 PM
Subject	TGT Computer Science

Section : General intelligence and Reasoning Ability

- Q.1** In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13, can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

9 - 81

6 - 36

- Ans** ☒ 1. 11 - 121
☐ 2. 18 - 80
☐ 3. 12 - 146
☐ 4. 17 - 349

- Q.2** What should come in place of the question mark (?) in the given series based on the English alphabetical order?

YMP UOM ? MSG IUD

- Ans** ☐ 1. PYT
☒ 2. QQJ
☐ 3. OTR
☐ 4. PYR

- Q.3** This question is based on the following words.

FOUR, RAIN, SOWN, DATE

In each of the words, each vowel is changed to the letter following it in the English alphabetical order and each consonant is changed to the letter preceding it in the English alphabetical order. In how many letter-clusters thus formed will no vowel appear?

- Ans** ☐ 1. One
☐ 2. Two
☐ 3. None
☒ 4. Three

- Q.4** Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All desktops are computers.

All computers are laptops.

Some computers are phones.

Conclusions:

(I) All laptops are phones.

(II) All desktops are phones.

- Ans** ☐ 1. Only conclusion (II) follows.
☐ 2. Both conclusions (I) and (II) follow.
☒ 3. Neither conclusion (I) nor (II) follows.
☐ 4. Only conclusion (I) follows.

Q.5 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☒ 1. JKM
 - ☒ 2. DEG
 - ☒ 3. CDG
 - ☒ 4. UVX

Q.6 In a certain code language, 'TYRE' is coded as '5127' and 'RENT' is coded as '1582'. What is the code for 'N' in the given code language?

- Ans**
- ☒ 1. 2
 - ☒ 2. 1
 - ☒ 3. 5
 - ☒ 4. 8

Q.7 Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given sets? (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

3 - 5 - 7 - 10
6 - 8 - 10 - 13

- Ans**
- ☒ 1. 13 - 15 - 17 - 20
 - ☒ 2. 2 - 4 - 6 - 10
 - ☒ 3. 5 - 7 - 10 - 20
 - ☒ 4. 1 - 3 - 5 - 10

Q.8 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

EWZ, YRV, SMR, MHN, GCJ, ?

- Ans**
- ☒ 1. CWE
 - ☒ 2. BWF
 - ☒ 3. AXF
 - ☒ 4. BYE

Q.9 Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. T has the exam on Thursday. S has the exam after R but before T. Only two people have exams after P. U has the exam immediately before V. Q has the exam before R. How many people have exams between R and V?

- Ans**
- ☒ 1. Two
 - ☒ 2. Three
 - ☒ 3. One
 - ☒ 4. Four

Q.10 This question is based on the five, three-digit numbers given below.

(Left) 587 219 378 187 596 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)
(NOTE: All operations to be done from left to right.)

What will be the resultant if the second digit of the highest number is added to the second digit of the lowest number?

- Ans**
- ☒ 1. 17
 - ☒ 2. 15
 - ☒ 3. 12
 - ☒ 4. 11

Q.11 What will come in place of the question mark (?) in the following equation if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$29 - 26 + 27 \div 15 \times 9 = ?$$

- Ans**
- ☐ 1. 11
 - ☐ 2. 8
 - ☒ 3. 10
 - ☐ 4. 12

Q.12 In this question, a statement is given followed by two courses of action, numbered I and II. You must assume everything in the statement to be true, and on the basis of the information given in the statement, decide which of the given courses of action logically follow(s) for pursuing.

Statement: The number of cybercrime incidents reported in Country Z has doubled over the last two years, primarily due to inadequate cybersecurity measures in place.

Courses of Action:

I. The government should launch a public awareness campaign on cybersecurity practices.

II. Stringent regulations and penalties for cybercrimes should be implemented and enforced immediately.

- Ans**
- ☐ 1. Only I follows.
 - ☐ 2. Only II follows.
 - ☐ 3. Neither I nor II follows.
 - ☒ 4. Both I and II follow.

Q.13 L, M, N, O, W, X and Y are sitting around a circular table, facing the centre. X sits to the immediate left of M. N sits to the immediate left of L. L sits second to the left of Y. W sits third to the left of M. How many people sit between O and Y when counted from the left of O?

- Ans**
- ☒ 1. Two
 - ☐ 2. Four
 - ☐ 3. One
 - ☐ 4. Three

Q.14 What should come in place of the question mark (?) in the given series?

$$802 \ 804 \ 808 \ 814 \ ?$$

- Ans**
- ☐ 1. 823
 - ☒ 2. 822
 - ☐ 3. 821
 - ☐ 4. 824

Q.15 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☒ 1. NF – IB
 - ☐ 2. TL – NF
 - ☐ 3. VN – PH
 - ☐ 4. YQ – SK

Q.16 What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$92 - 106 + 21 \div 3 \times 3 = ?$$

- Ans**
- ☐ 1. 175
 - ☐ 2. 178
 - ☒ 3. 177
 - ☐ 4. 176

Q.17 Mr. E starts from Point A and drives 7 km towards the East. He then takes a left turn, drives 4 km, turns left and drives 22 km. He then takes a left turn and drives 19 km. He then takes a left turn, drives 6 km, turns left and drives 8 km. He takes a final right turn, drives 9 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified)

- Ans**
-  1. 9 km to the South
 -  2. 7 km to the North
 -  3. 8 km to the North
 -  4. 6 km to the South

Q.18 Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

CBK : FAG
HGZ : K FV

- Ans**
-  1. UEL : XDH
 -  2. RDO : UCL
 -  3. UGW : XFT
 -  4. WCS : ZEO

Q.19 Seven boxes, E, F, I, J, R, S and Y, are kept one over the other but not necessarily in the same order. Only F is kept above I. Only E is kept between I and R. Only four boxes are kept between I and Y. Only one box is kept between Y and S. How many boxes are kept between J and Y?

- Ans**
-  1. Three
 -  2. Zero
 -  3. Two
 -  4. One

Q.20 In a certain code language,
'A z B' means 'A is the father of B',
'A # B' means 'A is the brother of B',
'A + B' means 'A is the sister of B' and
'A × B' means 'A is the wife of B'.

How is P related to H if 'P z I # T + C × H'?

- Ans**
-  1. Father's sister
 -  2. Wife's father
 -  3. Wife's mother
 -  4. Wife's brother

Section : **General Awareness**

Q.1 Which of the following Indian nationalists formed the Swaraj Party within the Congress in 1923 along with Motilal Nehru and Hakim Ajmal Khan?

- Ans**
-  1. Bal Gangadhar Tilak
 -  2. Chittaranjan Das
 -  3. Govind Ballabh Pant
 -  4. Mahadev Desai

Q.2 Which of the following national parks is famous for one-horned rhinoceroses in India?

- Ans**
-  1. Valmiki National Park
 -  2. Kaziranga National Park
 -  3. Ranthambore National Park
 -  4. Jim Corbett National Park

Q.3 Which of the following Articles of the Indian constitution says that there shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State?

- Ans**
- ☐ 1. Article 18
 - ☐ 2. Article 12
 - ☒ 3. Article 16
 - ☐ 4. Article 14

Q.4 In which of the following years was the All India Kisan Sabha, an important peasant movement led by Sahajanand Saraswati to address the exploitation of peasants under the colonial system and oppressive landlords, founded?

- Ans**
- ☐ 1. 1937
 - ☐ 2. 1938
 - ☐ 3. 1935
 - ☒ 4. 1936

Q.5 Where is Angkor Wat located, which has been recognised as the most photogenic UNESCO World Heritage site in Asia by Times Travel on 15 September 2024?

- Ans**
- ☐ 1. Singapore
 - ☐ 2. Malaysia
 - ☐ 3. Vietnam
 - ☒ 4. Cambodia

Q.6 The bioindicator of SO₂ pollutant in environment is _____.

- Ans**
- ☐ 1. algae
 - ☐ 2. fungi
 - ☒ 3. lichen
 - ☐ 4. bacteria

Q.7 Which of the following launch vehicles was used in Earth Observation Satellite (EOS)-08, launched by ISRO?

- Ans**
- ☐ 1. Small Satellite Launch Vehicle (SSLV)-D4
 - ☐ 2. Small Satellite Launch Vehicle (SSLV)-D1
 - ☐ 3. Small Satellite Launch Vehicle (SSLV)-D2
 - ☒ 4. Small Satellite Launch Vehicle (SSLV)-D3

Q.8 Which of the following Articles of the Constitution of India gives extensive original jurisdiction to the Supreme Court with regard to the enforcement of Fundamental Rights?

- Ans**
- ☐ 1. Article 36
 - ☐ 2. Article 30
 - ☐ 3. Article 39
 - ☒ 4. Article 32

Q.9 According to the Arrhenius concept, an acid is:

- Ans**
- ☐ 1. proton donor
 - ☐ 2. electron-pair acceptor
 - ☒ 3. H⁺ liberator in water
 - ☐ 4. oxide acceptor

Q.10 In March 2025, the GST Council established a Group of Ministers (GoM) to propose strategies for revenue mobilisation during natural calamities. Who among the following was the convenor of this GoM?

- Ans**
- ☐ 1. Premchandra Aggarwal
 - ☐ 2. Ajanta Neog
 - ☒ 3. Suresh Khanna
 - ☐ 4. Om Prakash Choudhary

Q.11 What impact did the COVID-19 pandemic have on employment in India?

- Ans**
- ☒ 1. Widespread job losses and economic disruptions
 - ☐ 2. Reduction in unemployment rates due to government interventions
 - ☐ 3. Surge in entrepreneurship and self-employment
 - ☐ 4. Significant increase in formal employment opportunities

Q.12 In which State is the Ranipur Tiger Reserve located?

- Ans**
- ☐ 1. Madhya Pradesh
 - ☐ 2. West Bengal
 - ☐ 3. Rajasthan
 - ☒ 4. Uttar Pradesh

Q.13 Consider the following statements.

1. She is a three-time Olympian and has won gold medals at the Commonwealth Games, Asian Games, and Asian Championships.

2. At the Paris 2024 Olympics, she was disqualified from the final due to a weigh-in issue.

3. She is an Indian politician and former wrestler, currently serving as a member of the Legislative Assembly (MLA) in Haryana.

The given statements describe which one of the following personalities?

- Ans**
- ☒ 1. Vinesh Phogat
 - ☐ 2. Sakshi Malik
 - ☐ 3. Geeta Phogat
 - ☐ 4. Babita Kumari

Q.14 A change of state directly from solid to gas without any change to the liquid state is called _____.

- Ans**
- ☐ 1. fusion
 - ☒ 2. sublimation
 - ☐ 3. vapourisation
 - ☐ 4. condensation

Q.15 Which of the following is the role of wages in the Classical Theory of Unemployment in the pursuit of full employment?

- Ans**
- ☐ 1. Wages are irrelevant in determining employment levels.
 - ☐ 2. Wages are fixed and do not impact employment levels.
 - ☒ 3. Wages are flexible and adjust to achieve full employment.
 - ☐ 4. Wages are set by the government to maintain full employment.

Q.16 In which of the following years was the Food Corporation of India (FCI) established?

- Ans**
- ☐ 1. 1961
 - ☐ 2. 1967
 - ☒ 3. 1965
 - ☐ 4. 1963

Q.17 Which of the following Articles of the Indian Constitution provides that the President can seek the aid and advice of the Council of Ministers?

- Ans**
- ☐ 1. Article 99
 - ☒ 2. Article 74
 - ☐ 3. Article 61
 - ☐ 4. Article 35

Q.18 Which of the following is a story set in a small South Indian fictional town located on the banks of river Sarayu?

- Ans**
- ☐ 1. Pachatantra
 - ☒ 2. Malgudi Days
 - ☐ 3. Junoon
 - ☐ 4. Ek Tha Rusty

Q.19 Which of the following ancient monuments in India is a UNESCO World Heritage Site and has numerous ruined temples dated back to the Vijayanagara period?

- Ans**
- ☒ 1. Hampi Ruins
 - ☐ 2. Ellora Caves
 - ☐ 3. Ajanta Caves
 - ☐ 4. Konark Sun Temple

Q.20 What is the main role of ribosomes within a cell?

- Ans**
- ☐ 1. DNA replication
 - ☒ 2. Protein synthesis
 - ☐ 3. ATP production
 - ☐ 4. Lipid storage

Section : **Arithmetical and Numerical Ability**

Q.1 The average of first 238 even natural numbers is:

- Ans**
- ☐ 1. 239.5
 - ☒ 2. 239
 - ☐ 3. 238.5
 - ☐ 4. 240

Q.2 A trader gives 8% discount on the marked price of an article and gives 3 articles free for buying 25 articles. He gains 15% in the entire transaction. Assuming a customer pays for 25 articles, the marked price of the article is what percentage more than its cost price?

- Ans**
- ☐ 1. 50%
 - ☐ 2. 25%
 - ☐ 3. 38%
 - ☒ 4. 40%

Q.3 The number of prime numbers between 434 and 440 is:

- Ans**
- ☐ 1. 2
 - ☐ 2. 6
 - ☒ 3. 1
 - ☐ 4. 4

Q.4 The cost of a washing machine is 50% less than the cost of a TV. If the cost of the washing machine increases by 80% and that of the TV decreases by 37%, then what is the percentage change in the total cost of 9 washing machines and 3 TVs?

- Ans**
- ☐ 1. Increase by 36%
 - ☐ 2. Decrease by 32%
 - ☐ 3. Decrease by 27%
 - ☒ 4. Increase by 33.2%

Q.5 Mukund purchased 10 kg of rice at the rate of ₹38 per kg and 32 kg of rice at ₹46 per kg. He sold the mixture at the rate of ₹42.5 per kg. Find his loss (in ₹).

- Ans**
- ☐ 1. 72
 - ☐ 2. 62
 - ☒ 3. 67
 - ☐ 4. 75

Q.6 Three numbers are in the ratio 13 : 5 : 16, and their LCM is 2080. Their HCF is:

- Ans**
- ☐ 1. 27
 - ☐ 2. 8
 - ☒ 3. 2
 - ☐ 4. 23

Q.7 If third proportional of 54 and 72 be x, then what is the value of x?

- Ans**
- ☐ 1. 99
 - ☐ 2. 98
 - ☒ 3. 96
 - ☐ 4. 97

Q.8 The ratio of income and expenditure of my friend is 5 : 2. His savings are ₹15,000. His expenditure breakdown is as follows: (x + 7.5)% on food, (x + 2)% on entertainment, (x + 5.5)% on rent and the remaining on children's education. If he spends ₹4,000 on children's education, find the value of x.

- Ans**
- ☐ 1. 1.5
 - ☐ 2. 5.5
 - ☐ 3. 7.5
 - ☒ 4. 15

Q.9 Three persons, M, N and K, working together, can complete a work in $5\frac{3}{47}$ days. If M and N together can complete the same work in X days, both N and K can do this in 6 days, while K and M together can complete it in 10 days. The value of X is:

- Ans**
- ☐ 1. 7
 - ☐ 2. 6
 - ☒ 3. 8
 - ☐ 4. 9

Q.10 Shailza has built a cubical water tank with a lid for her house, with each edge 1.75 m. She covers the outside surface of the tank, excluding the base, with square tiles that have sides of 35 cm. Calculate how much she would spend on the tiles if the cost is ₹420 per dozen tiles.

- Ans**
- ☒ 1. ₹4,375
 - ☐ 2. ₹4,735
 - ☐ 3. ₹4,135
 - ☐ 4. ₹4,575

Q.11 The HCF of two numbers is 8 and their LCM is 352. If one number is 32, find the other number.

- Ans**
- ☐ 1. 48
 - ☐ 2. 16
 - ☒ 3. 88
 - ☐ 4. 24

Q.12 Simplify: $(19 \times 16) \times \left\{ 6 \div 6 \times \frac{(19 - 17)}{2} \right\}$

- Ans**
- ☒ 1. 304
 - ☐ 2. 320
 - ☐ 3. 311
 - ☐ 4. 313

Q.13 Sachin and Dhoni move towards town B starting from town A, at a speed of 40 km/hr and 45 km/hr, respectively. If Dhoni reaches town B 40 minutes earlier than Sachin, what is the distance between towns A and B?

- Ans**
- ☐ 1. 243 km
 - ☐ 2. 238 km
 - ☐ 3. 242 km
 - ☒ 4. 240 km

Q.14 A sum of ₹5,20,000 is invested at compound interest for 2 years, interest compounded annually. The rate of interest is 7.5% per annum for the first year and 8.4% per annum for the second year. The amount after 2 years will be:

- Ans**
- ☐ 1. ₹6,04,695
 - ☐ 2. ₹6,02,680
 - ☐ 3. ₹6,07,880
 - ☒ 4. ₹6,05,956

Q.15 Simplify: $15^{-17} \times 5^{-17} \times 27^{-17}$

Ans

 1. $\left(\frac{1}{2065}\right)^{17}$

 2. $\left(\frac{1}{2025}\right)^{17}$

 3. $\left(\frac{1}{2050}\right)^{17}$

 4. $\left(\frac{1}{2069}\right)^{17}$

Q.16 Simplify the given expression.

$$\sqrt{196} + \sqrt{0.0361} - \sqrt{9}$$

Ans

 1. 2

 2. 11.19

 3. 13.04

 4. 7.61

Q.17 Sapna invested ₹21,500 on simple interest, partly at 13% per annum and partly at 7% per annum. If she earns equal interests from the two investments after 6 years, then find the sum invested at 13% per annum (in ₹).

Ans

 1. 7,526

 2. 7,527

 3. 7,524

 4. 7,525

Q.18 The ratio of milk to water in a 27-litre mixture is 7 : 2. Find the quantity of water (in litres) that should be added to the mixture to make the ratio 1 : 1.

Ans

 1. 20

 2. 15

 3. 17

 4. 22

Q.19 Amit can do a piece of work in 14 hours and Gopal can do it in 21 hours. With the assistance of Akshay, they completed the work in 7 hours. In how many hours can Akshay alone do the work?

Ans

 1. 43

 2. 41

 3. 42

 4. 44

Q.20 The curved surface area of a cone is 1914 cm^2 and the diameter is 42 cm. What is its slant height? (Use $\pi = \frac{22}{7}$)

Ans

 1. 36 cm

 2. 29 cm

 3. 33 cm

 4. 38 cm

Section : Test of English Language and Comprehension

Q.1 Select the most appropriate ANTONYM of the underlined word in the given sentence.

The problem with the unit is that it is composed of discrete items.

- Ans**
- ☒ 1. Linked
 - ☐ 2. Useful
 - ☐ 3. Defined
 - ☐ 4. Nominated

Q.2 Select the most appropriate option to fill in the blank.

He not only sings beautifully, _____ he also plays the piano.

- Ans**
- ☐ 1. and
 - ☐ 2. yet
 - ☐ 3. nor
 - ☒ 4. but

Q.3 Select the most appropriate option to fill in the blank.

Every citizen of our country must strive to safeguard the _____-won freedom for future generations.

- Ans**
- ☐ 1. very much
 - ☒ 2. hard
 - ☐ 3. hardly
 - ☐ 4. much

Q.4 Select the most appropriate option to fill in the blanks. If no article is required, select the option with 'No article required'.

I have _____ black dog and _____ green parakeet.

- Ans**
- ☐ 1. No article required; a
 - ☐ 2. a; No article required
 - ☐ 3. the; the
 - ☒ 4. a; a

Q.5 Identify the INCORRECTLY spelt word in the given paragraph.

The advent of renewable energy has transformed the global energy landscape, fostering a shift towards sustainable practices. Wind turbines and solar panels are becoming increasingly prevalent as nations aim to reduce their carbon footprint. However, the intermittancy of renewable energy sources poses a challenge, requiring advancements in energy storage solutions. Governments worldwide are investing in research and development to address these limitations and enhance efficiency. Collaboration between public and private sectors remains crucial for the successful transition to a greener future.

- Ans**
- ☐ 1. landscape
 - ☒ 2. intermittancy
 - ☐ 3. efficiency
 - ☐ 4. renewable

Q.6 Select the most appropriate one-word substitute for the group of words given in the brackets to fill in the blank.

Whenever it rains, Raju gets scared. So his friends say that he has _____ (extreme fear of thunderstorms).

- Ans**
- ☐ 1. acrophobia
 - ☐ 2. nephophobia
 - ☒ 3. astraphobia
 - ☐ 4. amnesia

Q.7 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

P- In the era of industrial revolution, the abolition of child labour, poor laws and the growth of trade unions helped families cope with the pressures of mechanised work.

Q- New institutions emerge which recognise ways in which workers could contribute to and benefit by economic growth when, rather than if, their jobs are automated.

R- Growing inequality could be matched by a creeping authoritarianism that is bolstered by technology that is increasingly able to peer into the deepest vestiges of our lives.

S- In the era of smart world, however, 'Universal Basic Income' is an ineffective instrument which cannot address the potential breakdown of the social contract when large swathes of the population would effectively be unemployed.

- Ans**
-  1. SRQP
 -  2. PSRQ
 -  3. QRPS
 -  4. RSQP

Q.8 Select the most appropriate meaning of the given idiom.

Let the cat out of the bag

- Ans**
-  1. To avoid responsibility
 -  2. To give up hope in a difficult situation
 -  3. To plan something carefully
 -  4. To reveal a secret unintentionally

Q.9 Select the most appropriate meaning of the given idiom.

Under the weather

- Ans**
-  1. Being deeply confused
 -  2. Feeling slightly ill
 -  3. Feeling extremely happy
 -  4. Avoiding responsibility

Q.10 Select the most appropriate **ANTONYM** of the underlined word in the given sentence.

As per **SEBI**, a subsidiary is a company that is part of a larger and more important company.

- Ans**
-  1. Accouterment
 -  2. Marginal
 -  3. Logical
 -  4. Central

Q.11 Select the most appropriate one-word substitute for the group of words given in the brackets to fill in the blank.

Rakesh is hesitant to express his feelings and interact with people. His friends call him _____ (a person who is unable to express or interact easily).

- Ans**
-  1. an introvert
 -  2. a misanthrope
 -  3. an ambivert
 -  4. an extrovert

Q.12 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

A) Moreover, leadership in such alliances is crucial for managing internal disputes and facilitating compromises that satisfy all members.

B) Leadership is fundamental to the success of alliance politics, as it provides the framework for unity and strategic direction.

C) Effective leaders are capable of aligning the diverse interests of coalition partners, ensuring collaboration despite ideological differences.

D) Therefore, leadership is not only key to preserving the stability of the alliance but also to strengthening its ability to implement policies, win elections, and maintain public trust.

E) Leaders also play an essential role in formulating the alliance's policies and maintaining focus on collective goals, even in the face of external challenges.

- Ans**
- ☒ 1. BCAED
 - ☐ 2. BCEDA
 - ☐ 3. BACDE
 - ☐ 4. BEDAC

Q.13 Select the most appropriate option to fill in the blank.

The committee _____ reached a unanimous decision.

- Ans**
- ☐ 1. were
 - ☐ 2. is
 - ☐ 3. have
 - ☒ 4. has

Q.14 Select the correct spelling of the incorrectly spelt word in the given sentence.

She worked hard to maintain a proffesional demeanor.

- Ans**
- ☐ 1. profesionel
 - ☐ 2. proffesional
 - ☒ 3. professional
 - ☐ 4. professinal

Q.15 Select the most appropriate article to fill in the blank. If no article is required, select 'No article required'.

Who is _____ president of France?

- Ans**
- ☐ 1. a
 - ☐ 2. an
 - ☒ 3. the
 - ☐ 4. No article required

Comprehension:

Read the given passage and answer the questions that follow.

Critical theory of technology is a political theory of modernity with a normative dimension. It comes from a tradition extending from Marx to Foucault and Habermas which says that advances in the formal claims of human rights take centre stage. Marx attributed this trajectory to the capitalist rationalisation of production. It is prevalent in every modern political system. This trajectory arose from the problems of control over a disempowered and deskilled labour force; but everywhere it is organised — be it Foucault's prisons or Habermas's public sphere — the same pattern prevails. Technological design is shaped by this pattern as the material base of a distinctive social order. In accordance with the notion of thought, critical theory of technology regards technologies as an environment rather than as a collection of tools. We are surrounded by technologies that determine our way of life. The theory builds an approach on the lessons of these histories. In this respect, they are comparable to laws and customs. These institutions said to represent those who live under their sway through privileging certain dimensions of their human nature. Laws of property represent the interest in ownership. Customs like parental authority represent the interest of childhood in safety and growth. Interests, such as these constitute the version of human nature sanctioned by society. The concept of nature suggests an alternative. The reference here is, of course, not to the nature of natural science, but to the lived nature in which we find ourselves and which we are.

SubQuestion No : 16

Q.16 Which of the following assertions most appropriately sums up the theme of the passage?

- Ans**
- ☒ 1. Certain aspects of human nature, like earning more and more, are given more weight in technological surroundings than in laws and norms.
 - ☒ 2. Automobiles are a symbol of the human desire for mobility and spiritual upliftment.
 - ☒ 3. Laws, customs, and technology are similar but different phenomena are applied for them.
 - ☒ 4. If viewed as institutions, technology, laws, and customs are similar to each other.

Comprehension:

Read the given passage and answer the questions that follow.

Critical theory of technology is a political theory of modernity with a normative dimension. It comes from a tradition extending from Marx to Foucault and Habermas which says that advances in the formal claims of human rights take centre stage. Marx attributed this trajectory to the capitalist rationalisation of production. It is prevalent in every modern political system. This trajectory arose from the problems of control over a disempowered and deskilled labour force; but everywhere it is organised — be it Foucault's prisons or Habermas's public sphere — the same pattern prevails. Technological design is shaped by this pattern as the material base of a distinctive social order. In accordance with the notion of thought, critical theory of technology regards technologies as an environment rather than as a collection of tools. We are surrounded by technologies that determine our way of life. The theory builds an approach on the lessons of these histories. In this respect, they are comparable to laws and customs. These institutions said to represent those who live under their sway through privileging certain dimensions of their human nature. Laws of property represent the interest in ownership. Customs like parental authority represent the interest of childhood in safety and growth. Interests, such as these constitute the version of human nature sanctioned by society. The concept of nature suggests an alternative. The reference here is, of course, not to the nature of natural science, but to the lived nature in which we find ourselves and which we are.

SubQuestion No : 17

Q.17 Select the statement which is INCORRECT according to the passage.

- Ans**
- ☒ 1. Technologies aim to elevate specific aspects of human nature, often at a significant expense to the natural world we experience.
 - ☒ 2. The critical theory of technology suggests that as concerns regarding human rights gain attention, we overlook how the social structure tends to become increasingly authoritarian.
 - ☒ 3. Examinations of technologies should incorporate their social backgrounds in order to uncover both the obvious and underlying significance they hold for us.
 - ☒ 4. The importance of parental authority in ensuring children's safety does not necessarily indicate that such authority is an inherent characteristic of human nature.

Comprehension:

Read the given passage and answer the questions that follow.

Critical theory of technology is a political theory of modernity with a normative dimension. It comes from a tradition extending from Marx to Foucault and Habermas which says that advances in the formal claims of human rights take centre stage. Marx attributed this trajectory to the capitalist rationalisation of production. It is prevalent in every modern political system. This trajectory arose from the problems of control over a disempowered and deskilled labour force; but everywhere it is organised — be it Foucault's prisons or Habermas's public sphere — the same pattern prevails. Technological design is shaped by this pattern as the material base of a distinctive social order. In accordance with the notion of thought, critical theory of technology regards technologies as an environment rather than as a collection of tools. We are surrounded by technologies that determine our way of life. The theory builds an approach on the lessons of these histories. In this respect, they are comparable to laws and customs. These institutions said to represent those who live under their sway through privileging certain dimensions of their human nature. Laws of property represent the interest in ownership. Customs like parental authority represent the interest of childhood in safety and growth. Interests, such as these constitute the version of human nature sanctioned by society. The concept of nature suggests an alternative. The reference here is, of course, not to the nature of natural science, but to the lived nature in which we find ourselves and which we are.

SubQuestion No : 18

Q.18 Select the statement which supports the opinion of the author.

- Ans**
- ☒ 1. Technologies form the environmental context and shape the contours of human society.
 - ☐ 2. Nature decides the point at which society loses its capacity to control history.
 - ☐ 3. It is not human nature, but human culture that is represented by institutions such as law and custom.
 - ☐ 4. The romantic conception of nature referred to by the passage is the one that requires theoretical legitimacy.

Comprehension:

Read the given passage and answer the questions that follow.

Critical theory of technology is a political theory of modernity with a normative dimension. It comes from a tradition extending from Marx to Foucault and Habermas which says that advances in the formal claims of human rights take centre stage. Marx attributed this trajectory to the capitalist rationalisation of production. It is prevalent in every modern political system. This trajectory arose from the problems of control over a disempowered and deskilled labour force; but everywhere it is organised — be it Foucault's prisons or Habermas's public sphere — the same pattern prevails. Technological design is shaped by this pattern as the material base of a distinctive social order. In accordance with the notion of thought, critical theory of technology regards technologies as an environment rather than as a collection of tools. We are surrounded by technologies that determine our way of life. The theory builds an approach on the lessons of these histories. In this respect, they are comparable to laws and customs. These institutions said to represent those who live under their sway through privileging certain dimensions of their human nature. Laws of property represent the interest in ownership. Customs like parental authority represent the interest of childhood in safety and growth. Interests, such as these constitute the version of human nature sanctioned by society. The concept of nature suggests an alternative. The reference here is, of course, not to the nature of natural science, but to the lived nature in which we find ourselves and which we are.

SubQuestion No : 19

Q.19 Select the statement which does NOT support the arguments given by the author of the passage.

- Ans**
- ☐ 1. Ironically, the capitalist rationalisation of production is also a mark of so-called socialist systems.
 - ☐ 2. The complications of command over a disempowered and deskilled labour force gave birth to similar patterns of the capitalist rationalisation of production wherever masses were organised.
 - ☒ 3. Marx's knowledge of the capitalist rationalisation of production and Marcuse's understanding of a 'project' of 'technological rationality' share theoretical inclinations.
 - ☐ 4. Masses are planned in patterns set by Foucault's prisons and Habermas' public sphere.

Comprehension:

Read the given passage and answer the questions that follow.

Critical theory of technology is a political theory of modernity with a normative dimension. It comes from a tradition extending from Marx to Foucault and Habermas which says that advances in the formal claims of human rights take centre stage. Marx attributed this trajectory to the capitalist rationalisation of production. It is prevalent in every modern political system. This trajectory arose from the problems of control over a disempowered and deskilled labour force; but everywhere it is organised — be it Foucault's prisons or Habermas's public sphere — the same pattern prevails. Technological design is shaped by this pattern as the material base of a distinctive social order. In accordance with the notion of thought, critical theory of technology regards technologies as an environment rather than as a collection of tools. We are surrounded by technologies that determine our way of life. The theory builds an approach on the lessons of these histories. In this respect, they are comparable to laws and customs. These institutions said to represent those who live under their sway through privileging certain dimensions of their human nature. Laws of property represent the interest in ownership. Customs like parental authority represent the interest of childhood in safety and growth. Interests, such as these constitute the version of human nature sanctioned by society. The concept of nature suggests an alternative. The reference here is, of course, not to the nature of natural science, but to the lived nature in which we find ourselves and which we are.

SubQuestion No : 20

Q.20 Select the most appropriate ANTONYM of the word 'extend'.

- Ans**
- ☒ 1. Abridge
 - ☐ 2. Advance
 - ☐ 3. Pretend
 - ☐ 4. Inversion

Section : Test of Hindi Language and Comprehension

Q.1 निम्नलिखित में से एक 'प्रकीर्ण' का पर्याय नहीं है-

- Ans**
- ☐ 1. विविध
 - ☒ 2. प्रतिकूल
 - ☐ 3. नाना
 - ☐ 4. विभिन्न

Q.2 'साँप मरे पर लाठी न टूटे' लोकोक्ति का सही अर्थ है-

- Ans**
- ☐ 1. लाठी का प्रयोग न करना
 - ☒ 2. बिना किसी हानि के अपना काम बनाना
 - ☐ 3. साँप से डरकर भाग जाना
 - ☐ 4. किसी को नुकसान पहुँचाना

Q.3 'तरुण' का विलोम शब्द पहचानें-

- Ans**
- ☐ 1. वयस्क
 - ☐ 2. तेज
 - ☐ 3. अलसी
 - ☒ 4. वृद्ध

Q.4 'चाँदी काटना' मुहावरे का अर्थ क्या है?

- Ans**
- ☐ 1. वश में होना
 - ☐ 2. खूब मरम्मत करना
 - ☒ 3. खूब धन पैदा करना
 - ☐ 4. व्यर्थ समय गँवाना

Q.5 उपयुक्त 'कारक चिह्न' का प्रयोग कर वाक्य को पूर्ण कीजिए।
'सीतात्रिजटा को समझाया था ।'

- Ans**
- ☐ 1. से
 - ☐ 2. ऊपर
 - ☒ 3. ने
 - ☐ 4. के निमित्त

Q.6	“जिसकी आशा न की गयी हो”- वाक्यांश के लिए एक शब्द होगा-
Ans	✗ 1. ऐच्छिक ✗ 2. दुर्भेदा ✓ 3. अप्रत्याशित ✗ 4. आशुतोष
Q.7	निम्नलिखित वाक्यों में से अतिरिक्त वाक्य का चयन करें -
Ans	✗ 1. नियमित व्यायाम, संतुलित आहार और सकारात्मक सोच हमारे स्वास्थ्य को बनाए रखने में सहायक होते हैं । ✗ 2. यदि शरीर स्वस्थ नहीं है, तो धन, वैभव और ऐश्वर्य सब व्यर्थ लगते हैं । ✗ 3. अच्छा स्वास्थ्य केवल लंबी उम्र ही नहीं देता, बल्कि जीवन में आनंद और ऊर्जा भी भरता है । ✓ 4. हमें हर क्षण को मूल्यवान समझकर उसे सार्थक कार्यों में लगाना चाहिए ।
Q.8	निम्नलिखित में से अतिरिक्त उचित वाक्य का चयन करें –‘संघ का यह कर्तव्य होगा कि-----’
Ans	✗ 1. अभिव्यक्ति का माध्यम बन सके । ✗ 2. जिससे वह भारत की सामासिक संस्कृति के सभी तत्त्वों की ✓ 3. कोई कार्य सरल नहीं होता है । ✗ 4. वह हिन्दी का प्रसार बढ़ाए,उसका विकास करे ।
Q.9	निम्नलिखित वाक्य के रिक्त स्थान में उचित क्रिया-विशेषण की पूर्ति कीजिए- 'करीम _____ बोलता है ।'
Ans	✗ 1. जैसे ✗ 2. अब ✓ 3. बहुत ✗ 4. जहाँ
Q.10	निम्नलिखित वाक्यांश के लिए एक शब्द का चयन कीजिए जिस पर आक्रमण हो
Ans	✗ 1. अपेय ✓ 2. आक्रांत ✗ 3. अप्रहत ✗ 4. अनुवेश
Q.11	निम्नलिखित वाक्य के रिक्त स्थान में उचित क्रिया की पूर्ति कीजिए - 'सोहन कहानी _____'
Ans	✓ 1. लिखता है । ✗ 2. पहचानता है । ✗ 3. गाता है । ✗ 4. पाया है ।
Q.12	निम्नलिखित में से कौन सा एक वाक्य वर्तनी की दृष्टि से अशुद्ध है?
Ans	✗ 1. हमारा उद्देश्य सफलता-प्राप्ति होना चाहिए । ✗ 2. पानी की कमी के कारण गाँव की समस्त जनता परेशान है । ✓ 3. इस दुकान में गाय का असली दूध मिलता है । ✗ 4. मैं इनके उज्ज्वल भविष्य की कामना करता हूँ ।
Q.13	निम्नलिखित में से कौन सा एक वाक्य वर्तनी की दृष्टि से अशुद्ध है?
Ans	✗ 1. एक गिलास गर्म दूध पी लीजिए । ✓ 2. स्वालम्बन की एक झलक पर न्योछावर कुबेर का कोश । ✗ 3. अध्यापक ने मुझे बुलाया है । ✗ 4. वह आदमी पागल हो गया है ।
Q.14	निम्नलिखित वाक्य को उपयुक्त विशेषण से पूरा करें-
	विश्वजीत _____ लड़का है
Ans	✗ 1. कड़ा ✓ 2. डरपोक ✗ 3. आदम ✗ 4. शीतल

Q.15 निम्नलिखित वाक्य को दिए गए विकल्पों में से उपयुक्त कारक से पूरा करें-
अच्छे अंकों _____ राहुल _____ सम्मान दिलाया

- Ans  1. से ,ने
 2. से ,को
 3. को ,ने
 4. ने,को

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है । यह देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है, सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है । संविधान के द्वारा मौलिक अधिकारों की रक्षा के साथ-साथ शासन के सिद्धांतों को भी रेखांकित किया जाता है । संविधान में देश के प्रशासन का मार्गदर्शन करने वाले नियमों और विनियमों का एक समूह होता है । भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है । इसका निर्माण सावधानीपूर्वक किया गया है, जो ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है, और यह भारत को एक अधिक न्यायपूर्ण, समावेशी और समृद्ध समाज की ओर ले जाने का मार्गदर्शन प्रदान करता है । भारतीय संविधान अपने मूल्यों को बनाए रखने, विविधता के बीच एकता को बढ़ावा देने और प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं की रक्षा करने के लिए महत्वपूर्ण है, इस प्रकार यह आने वाली पीढ़ियों के लिए एक उज्ज्वल भविष्य सुनिश्चित करता है ।

SubQuestion No : 16

Q.16 उपर्युक्त गद्यांश का उपयुक्त शीर्षक क्या होगा-

- Ans  1. भारतीय संविधान के अनुच्छेद
 2. भारतीय संविधान के अधिनियम
 3. भारतीय संविधान की प्रस्तावना
 4. भारतीय संविधान की बुनियादी विशेषताएँ

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है । यह देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है, सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है । संविधान के द्वारा मौलिक अधिकारों की रक्षा के साथ-साथ शासन के सिद्धांतों को भी रेखांकित किया जाता है । संविधान में देश के प्रशासन का मार्गदर्शन करने वाले नियमों और विनियमों का एक समूह होता है । भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है । इसका निर्माण सावधानीपूर्वक किया गया है, जो ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है, और यह भारत को एक अधिक न्यायपूर्ण, समावेशी और समृद्ध समाज की ओर ले जाने का मार्गदर्शन प्रदान करता है । भारतीय संविधान अपने मूल्यों को बनाए रखने, विविधता के बीच एकता को बढ़ावा देने और प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं की रक्षा करने के लिए महत्वपूर्ण है, इस प्रकार यह आने वाली पीढ़ियों के लिए एक उज्ज्वल भविष्य सुनिश्चित करता है ।

SubQuestion No : 17

Q.17 उपर्युक्त गद्यांश के अनुसार भारतीय संविधान के सम्बन्ध में कौन सा कथन असत्य है-

- Ans  1. भारतीय संविधान देशवासियों के मौलिक अधिकारों की अवहेलना करता है ।
 2. भारतीय संविधान सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है ।
 3. भारतीय संविधान देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है ।
 4. भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है ।

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है । यह देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है, सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है । संविधान के द्वारा मौलिक अधिकारों की रक्षा के साथ-साथ शासन के सिद्धांतों को भी रेखांकित किया जाता है । संविधान में देश के प्रशासन का मार्गदर्शन करने वाले नियमों और विनियमों का एक समूह होता है । भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है । इसका निर्माण सावधानीपूर्वक किया गया है, जो ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है, और यह भारत को एक अधिक न्यायपूर्ण, समावेशी और समृद्ध समाज की ओर ले जाने का मार्गदर्शन प्रदान करता है । भारतीय संविधान अपने मूल्यों को बनाए रखने, विविधता के बीच एकता को बढ़ावा देने और प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं की रक्षा करने के लिए महत्वपूर्ण है, इस प्रकार यह आने वाली पीढ़ियों के लिए एक उज्ज्वल भविष्य सुनिश्चित करता है ।

SubQuestion No : 18

Q.18 भारतीय संविधान का निर्माण सावधानीपूर्वक किया गया है, जो-

- Ans  1. न्यायपूर्ण, समावेशी और समृद्ध समाज निर्माण का विरोधी है ।
 2. प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं का पक्षधर नहीं है ।
 3. विविधता के बीच एकता में बाधक है ।
 4. ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है ।

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है। यह देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है, सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है। संविधान के द्वारा मौलिक अधिकारों की रक्षा के साथ-साथ शासन के सिद्धांतों को भी रेखांकित किया जाता है। संविधान में देश के प्रशासन का मार्गदर्शन करने वाले नियमों और विनियमों का एक समूह होता है। भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है। इसका निर्माण सावधानीपूर्वक किया गया है, जो ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है, और यह भारत को एक अधिक न्यायपूर्ण, समावेशी और समृद्ध समाज की ओर ले जाने का मार्गदर्शन प्रदान करता है। भारतीय संविधान अपने मूल्यों को बनाए रखने, विविधता के बीच एकता को बढ़ावा देने और प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं की रक्षा करने के लिए महत्वपूर्ण है, इस प्रकार यह आने वाली पीढ़ियों के लिए एक उज्ज्वल भविष्य सुनिश्चित करता है।

SubQuestion No : 19

Q.19 'संविधान' शब्द का अर्थ है –

- Ans
- ☒ 1. संयुक्त
 - ☒ 2. प्रबंध
 - ☒ 3. सावधान
 - ☒ 4. समूह

Comprehension:

दिए गए गद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए ।

भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है। यह देश की राजनीतिक व्यवस्था के लिए रूपरेखा तैयार करता है, सरकार की संस्थाओं की शक्तियों एवं उत्तरदायित्वों को परिभाषित करता है। संविधान के द्वारा मौलिक अधिकारों की रक्षा के साथ-साथ शासन के सिद्धांतों को भी रेखांकित किया जाता है। संविधान में देश के प्रशासन का मार्गदर्शन करने वाले नियमों और विनियमों का एक समूह होता है। भारतीय संविधान राष्ट्र के लोकतांत्रिक आदर्शों और आकांक्षाओं का प्रमाण है। इसका निर्माण सावधानीपूर्वक किया गया है, जो ऐतिहासिक संघर्षों और दूरदर्शी सिद्धांतों पर आधारित है, और यह भारत को एक अधिक न्यायपूर्ण, समावेशी और समृद्ध समाज की ओर ले जाने का मार्गदर्शन प्रदान करता है। भारतीय संविधान अपने मूल्यों को बनाए रखने, विविधता के बीच एकता को बढ़ावा देने और प्रत्येक नागरिक के अधिकारों और स्वतंत्रताओं की रक्षा करने के लिए महत्वपूर्ण है, इस प्रकार यह आने वाली पीढ़ियों के लिए एक उज्ज्वल भविष्य सुनिश्चित करता है।

SubQuestion No : 20

Q.20 “भारत का संविधान भारतीय गणराज्य का सर्वोच्च कानून है।” उपर्युक्त वाक्य का रेखांकित शब्द ‘का’ कौन सा कारक है –

- Ans
- ☒ 1. संप्रदान कारक
 - ☒ 2. अपादान कारक
 - ☒ 3. संबंध कारक
 - ☒ 4. अधिकरण कारक

Section : Discipline1

Q.1 If CloseHandle is NOT called after opening a file with CreateFile, which of the following issues might occur?

- Ans
- ☒ 1. The file will be corrupted.
 - ☒ 2. The file will become read-only.
 - ☒ 3. The file may not be accessible.
 - ☒ 4. Resources associated with the file may not be released.

Q.2 Which synchronisation tool helps implement bounded waiting?

- Ans
- ☒ 1. Context switching
 - ☒ 2. Interrupts
 - ☒ 3. Paging
 - ☒ 4. Semaphores

Q.3 What is a transport layer address typically called?

- Ans
- ☒ 1. IP Address
 - ☒ 2. Port Number
 - ☒ 3. Subnet Mask
 - ☒ 4. MAC Address

Q.4 In TCP, which flag is used to initiate connection termination?

- Ans**
- ☒ 1. FIN
 - ☐ 2. SYN
 - ☐ 3. ACK
 - ☐ 4. RST

Q.5 What type of data does RTP (Real Time Protocol) primarily support?

- Ans**
- ☐ 1. Text documents
 - ☐ 2. File transfers
 - ☒ 3. Real-time multimedia (audio and video)
 - ☐ 4. Encrypted email attachments

Q.6 Which of the following statements about WITH CHECK OPTION in SQL views is true?

- Ans**
- ☒ 1. It ensures that inserted/updated rows satisfy the view's WHERE clause.
 - ☐ 2. It makes the view read-only.
 - ☐ 3. It allows only ALTER operations on the view.
 - ☐ 4. It prevents any alter through the view.

Q.7 While creating a new table ProductOrder_2026, which SQL statement correctly inserts all the records from the ProductOrder_2026 table into ProductOrder?

- Ans**
- ☒ 1. CREATE TABLE ProductOrder_2026 AS SELECT * FROM ProductOrder;
 - ☐ 2. CREATE TABLE ProductOrder_2026 AS UPDATE * FROM ProductOrder;
 - ☐ 3. CREATE TABLE ProductOrder_2026 AS CREATE * FROM ProductOrder;
 - ☐ 4. CREATE TABLE ProductOrder_2026 AS INSERT * FROM ProductOrder ;

Q.8 Which of the following correctly describes a TCP connection termination?

- Ans**
- ☐ 1. It is immediate and requires no acknowledgment.
 - ☒ 2. It ensures both the sender and receiver agree to close the connection.
 - ☐ 3. It uses a two-way handshake.
 - ☐ 4. It does not involve the FIN flag.

Q.9 Which of the following conditions must be satisfied to solve the critical section problem?

- Ans**
- ☐ 1. Starvation, fairness, and scheduling
 - ☐ 2. Semaphore, mutex, and locks
 - ☒ 3. Mutual exclusion, progress, and bounded waiting
 - ☐ 4. Priority inversion, deadlock, and throughput

Q.10 Which cryptographic protocol is used to ensure privacy in secure web communications?

- Ans**
- ☐ 1. FTP (File Transfer Protocol)
 - ☐ 2. ARP (Address Resolution Protocol)
 - ☐ 3. HTTP
 - ☒ 4. TLS (Transport Layer Security)

Q.11 Which of the following is INCORRECT, as per a 2-input OR gate truth table?

- Ans**
- ☒ 1. If input A=0, B=0, then output Y=1.
 - ☐ 2. If input A=1, B=1, then output Y=1.
 - ☐ 3. If input A=1, B=0, then output Y=1.
 - ☐ 4. If input A=0 , B=1, then output Y=1.

Q.12 _____ is an invalid statement in standard SQL:1999.

- Ans**
- ☒ 1. INSERT Employees VALUES ('John', DEFAULT, 'IT');
 - ☐ 2. UPDATE Customer SET Bill = Bill - 5000 WHERE Account = 'High privilege';
 - ☐ 3. DELETE FROM Customer WHERE 1=1;
 - ☐ 4. INSERT INTO Employees VALUES (DEFAULT, 'John', 'IT');

Q.13 Which of the following best describes the function of a NOT gate?

- Ans**
- ☒ 1. It performs logical multiplication.
 - ☒ 2. It inverts the input signal.
 - ☒ 3. It performs logical addition.
 - ☒ 4. It passes the input as output without change.

Q.14 Which of the following is true about FCFS disk scheduling?

- Ans**
- ☒ 1. It causes minimal delay for all processes.
 - ☒ 2. It serves requests in the order they are received.
 - ☒ 3. It provides the best throughput compared to other algorithms.
 - ☒ 4. It ensures the shortest seek time first.

Q.15 What ensures the integrity of a digital signature?

- Ans**
- ☒ 1. The Certificate Authority's approval
 - ☒ 2. Hash value of the original message
 - ☒ 3. The private key of the receiver
 - ☒ 4. The encryption algorithm used

Q.16 Which is NOT a valid way to include a comment in SQL-99?

- Ans**
- ☒ 1. Single-line comments start with -- double hyphens
 - ☒ 2. // This is used for giving a comment
 - ☒ 3. Inline Comments: Inline comments start with -- after the SQL statement on the same line
 - ☒ 4. Multiline Comments or Block Comments: Multiline comments start with /* and end with */

Q.17 Which of the following is NOT a phase of TCP congestion control?

- Ans**
- ☒ 1. Congestion avoidance
 - ☒ 2. Fast retransmit
 - ☒ 3. Slow start
 - ☒ 4. Data fragmentation

Q.18 Which of the following statements regarding the Best Fit memory allocation strategy is true?

- Ans**
- ☒ 1. Best Fit may cause excessive fragmentation by creating many small unusable holes.
 - ☒ 2. Best Fit prefers allocating memory at the start of the memory block list.
 - ☒ 3. Best Fit always allocates memory faster since it searches the larger free partition.
 - ☒ 4. Best Fit merges adjacent free partitions soon after allocation.

Q.19 SELECT MAX(result) FROM student WHERE result < (SELECT MAX(result) FROM student);

- Ans**
- ☒ 1. SELECT MAX(result) FROM student WHERE result < (SELECT MAX(result) FROM student);
 - ☒ 2. SELECT result FROM student WHERE ROWNUM = 2 ORDER BY result DESC;
 - ☒ 3. SELECT result FROM student ORDER BY result DESC LIMIT 1 OFFSET 1;
 - ☒ 4. SELECT TOP 2 result FROM student ORDER BY result DESC;

Q.20 What type of argument does the CloseHandle system call require?

- Ans**
- ☒ 1. File name
 - ☒ 2. Pointer to the memory buffer
 - ☒ 3. Handle to the file or resource
 - ☒ 4. File path

Q.1 Given the following code, what will be the result?

```
public class Test {  
    public static void main(String[] args) {  
        Object obj = new String("Hello");  
        String str = (String) obj;  
        System.out.println(str);  
    }  
}
```

- Ans
-  1. Throws ClassCastException.
 -  2. Runtime error.
 -  3. Hello will be printed.
 -  4. Compilation error.

Q.2 Consider the following Java code snippet:

```
class Animal {  
    String name;  
    int age;  
    Animal() {  
        this.name = "Unknown";  
        this.age = 0;  
    }  
  
    Animal(String name, int age) {  
        this.name = name;  
        this.age = age;  
    }  
  
    void displayInfo() {  
        System.out.println("Animal: " + name + ", Age: " + age);  
    }  
}  
  
public class Main {  
    public static void main(String[] args) {  
        Animal a1 = new Animal();  
        Animal a2 = new Animal("Dog", 5);  
        a1.displayInfo();  
        a2.displayInfo();  
  
        // Error-prone code:  
        //1. Animal a3 = new Animal("Cat");  
        //2. a2.name = null; a2.displayInfo();  
        // 3. Animal a4 = null; a4.displayInfo();  
    }  
}
```

Which of the following statements is/are true regarding the above code?

1. The Animal class supports both default and parameterized constructors.
2. If line 1 in the comment is uncommented, the code will compile and run successfully.
3. If line 2 is executed, a2.displayInfo() will print "Animal: null, Age: 5".
4. If line 3 is executed, the program will throw a NullPointerException at runtime.

- Ans
-  1. 1,2 and 4 only
 -  2. 1,3 and 4 only
 -  3. 2 only
 -  4. 1 and 4 only

Q.3 Convert the decimal number 325 to its octal equivalent.

- Ans
-  1. 541
 -  2. 505
 -  3. 485
 -  4. 514

Q.4 What will be printed by the following code?

```
#include<stdio.h>
int main() {
int marks = 75;
char grade = (marks >= 90) ? 'A' : (marks >= 70) ? 'B' : 'C';
printf("%c", grade);
return 0;
}
```

- Ans
-  1. A
 -  2. B
 -  3. Compile time error
 -  4. C

Q.5 What will be the output of the following code (assume size of int as 4 bytes in the system)?

```
#include<stdio.h>
int main() {
int arr[5] = {1, 2, 3, 4, 5};
printf("%lu", sizeof(arr));
return 0;
}
```

- Ans
-  1. compile time error
 -  2. 5
 -  3. 20
 -  4. 4

Q.6 What happens if you try to use an uninitialised variable in C?

- Ans
-  1. The variable is automatically initialised to 0.
 -  2. The program will not compile.
 -  3. The program will throw a runtime error.
 -  4. The variable contains garbage (indeterminate) value.

Q.7 Consider the following code snippet. What will it print?

```
#include <stdio.h>
int main() {
char str[][10] = {"one", "two", "three"};
printf("%c\n", str[2][4]);
return 0;
}
```

- Ans
-  1. r
 -  2. e
 -  3. h
 -  4. three

Q.8 What will be the output of the following code?

```
#include <stdio.h>
int main() {
int x = 5;
switch(x) {
case 5:
printf("Five");
default:
printf("Default");
}
return 0;
}
```

- Ans
-  1. FiveDefault
 -  2. Compilation error
 -  3. Default
 -  4. Five

Q.9 Convert the binary number (11011)₂ to its decimal equivalent.

- Ans**
- ☐ 1. 31
 - ☐ 2. 25
 - ☐ 3. 29
 - ☒ 4. 27

Q.10 Which of the following demonstrates the implementation of inheritance in Java?

- Ans**
- ☐ 1. class A contains B {}
 - ☒ 2. class A extends B {}
 - ☐ 3. class B inherits A {}
 - ☐ 4. class A implements B {}

Q.11 What is the primary restriction on nested functions in C?

- Ans**
- ☒ 1. Nested functions are not allowed in standard C but are supported as extensions in some compilers.
 - ☐ 2. Nested functions must be defined before their enclosing function.
 - ☐ 3. Nested functions must be declared as inline.
 - ☐ 4. Nested functions are fully supported in standard C.

Q.12 What will be the output of the following code?

```
#include <stdio.h>
int main() {
    int arr[5] = {10, 20, 30, 40, 50};
    int (*p)[5] = &arr;
    printf("%d\n", *(*p + 3));
    return 0;
}
```

- Ans**
- ☐ 1. 30
 - ☐ 2. 20
 - ☒ 3. 40
 - ☐ 4. Compilation Error

Q.13 In the context of array types, what is the key difference between int *arr[5] and int (*arr)[5]?

- Ans**
- ☐ 1. They are identical in their functionality
 - ☐ 2. First is a pointer to an array, second is an array of pointers
 - ☐ 3. Both are syntactically incorrect
 - ☒ 4. First is an array of pointers to integers, second is a pointer to an array of integers

Q.14 What is the output of the following code?

```
#include <stdio.h>
int main() {
    printf("%d", printf("C Programming"));
    return 0;
}
```

- Ans**
- ☒ 1. C Programming13
 - ☐ 2. C Programming12
 - ☐ 3. C Programming
 - ☐ 4. 13

Q.15 Which type of applications are commonly developed using Object-Oriented Programming?

- Ans**
- ☒ 1. Mobile applications
 - ☐ 2. Operating system kernels
 - ☐ 3. Machine-level programs
 - ☐ 4. Assembly-level programs

Q.16 Which among the following is an example of compile-time polymorphism in Java?

- Ans**
- ☐ 1. Abstract classes
 - ☒ 2. Method overloading
 - ☐ 3. Method overriding
 - ☐ 4. Interfaces

Q.17 Which of the following is an invalid variable name in C?

- Ans**
- ☐ 1. total_sum
 - ☐ 2. num123
 - ☒ 3. void
 - ☐ 4. firstName

Q.18 What will be the output of the following code?

```
#include <stdio.h>
int main() {
    int a = 2, b = 3;
    switch (a) {
    case 1:
        printf("Case 1");
        break;
    case 2:
        switch (b) {
        case 3:
            printf("Case 3");
            break;
        default:
            printf("Inner Default");
        }
        default:
            printf("Outer Default");
        }
    return 0;
}
```

- Ans**
- ☒ 1. Case 3Outer Default
 - ☐ 2. Case 3Inner Default
 - ☐ 3. Inner DefaultOuter Default
 - ☐ 4. Case 3

Q.19 How many times will the following loop execute?

```
for (int i = 0; i < 5; i++) {
    printf("%d ", i);
}
```

- Ans**
- ☐ 1. Infinite
 - ☐ 2. 6
 - ☒ 3. 5
 - ☐ 4. 4

Q.20 What is the output of the following code snippet?

```
int x = 6;
System.out.println(x++ + ++x);
```

- Ans**
- ☐ 1. 13
 - ☒ 2. 14
 - ☐ 3. 12
 - ☐ 4. 11

Section : **Discipline3**

Q.1 Which of the following is an example of a vector graphic format?

- Ans**
- ☐ 1. GIF
 - ☐ 2. JPG
 - ☐ 3. PNG
 - ☒ 4. SVG

Q.2 What will be the output of the following C code?

```
#include <stdio.h>
int main() {
    int i;
    for (i = 1; i <= 10; i++)
    {
        if (++i % 2 == 0)
            printf("%d ", i);
    }
    return 0;
}
```

- Ans
- ☐ 1. 1 3 5 7 9
 - ☐ 2. 1 2 3 4 5 6 7 8 9 10
 - ☐ 3. 2 4 6 8
 - ☒ 4. 2 4 6 8 10

Q.3 What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int i = 1;
    while (i < 5) {
        printf("%d ", i++);
        i++;
    }
    return 0;
}
```

- Ans
- ☐ 1. 1 2 3 4 5
 - ☐ 2. 2 4
 - ☐ 3. 1 3 4
 - ☒ 4. 1 3

Q.4 Which sorting algorithm performs the worst when the input array is nearly sorted?

- Ans
- ☐ 1. Hybrid Sort
 - ☐ 2. Max Sort
 - ☒ 3. Insertion Sort
 - ☐ 4. Bubble Sort

Q.5 Consider a singly linked list containing n elements in which A is the address of the starting node of the linked list. If we first convert the linked list to an array, then sort the array elements, and then create a new linked list from the elements of the sorted array, what is the number of operations required to traverse the linked list and store its data values in an additional array before applying sorting?

- Ans
- ☐ 1. $O(n \log n)$
 - ☒ 2. $O(n)$
 - ☐ 3. $O(\log n)$
 - ☐ 4. $O(n^2)$

Q.6 Given the array $a = [10, 20, 30, 40, 50, 60]$ with 6 elements,

What will the array look like after inserting the value 45 at index 4?

- Ans
- ☐ 1. [10, 25, 20, 30, 40, 45, 50]
 - ☐ 2. [10, 20, 25, 30, 40, 45, 60]
 - ☐ 3. [10, 20, 25, 30, 40, 45, 50]
 - ☒ 4. [10, 20, 30, 40, 45, 50, 60]

Q.7 Which of the following are key components of an XML document?

- Ans
- ☐ 1. HTML tags and hyperlinks
 - ☒ 2. Tags, attributes, and comments
 - ☐ 3. Classes, objects, and functions
 - ☐ 4. Scripts, styles, and images

Q.8 What will be the output of the following C program code if the file "test.txt" is empty, readable, and exists in the appropriate directory?

```
#include <stdio.h>
int main() {
FILE *fp = fopen("test.txt", "r");
if (fp == NULL) {
printf("Error\n");
} else {
printf("Success\n");
fclose(fp);
}
return 0;
}
```

- Ans**
- ☐ 1. NULL
 - ☐ 2. Error
 - ☐ 3. Garbage value
 - ☒ 4. Success

Q.9 Consider the given memory representation of singly linked list where start points to the address of the starting node of the linked list, which is in memory location 0.

Memory representation of the linked list

Memory location	Item value	Pointer to next element
0	A	4
1	E	3
2	B	NULL
3	X	2
4	C	1

If you traverse all the elements from the given linked list, then which of the following is correct order?

- Ans**
- ☐ 1. A, B, C, E, X
 - ☐ 2. A, C, X, E, B
 - ☐ 3. A, E, B, X, C
 - ☒ 4. A, C, E, X, B

Q.10 The process of synchronizing audio and video streams in multimedia is known as:

- Ans**
- ☐ 1. Real-time encoding
 - ☐ 2. Stream buffering
 - ☐ 3. Frame buffering
 - ☒ 4. Lip synchronization

Q.11 Which of the following is the correct way to declare a variable in Java?

- Ans**
- ☐ 1. x = 10;
 - ☒ 2. int x = 10;
 - ☐ 3. var x = 10;
 - ☐ 4. let x = 10;

Q.12 Which function is used to close a file in C?

- Ans**
- ☐ 1. close()
 - ☒ 2. fclose()
 - ☐ 3. endfile()
 - ☐ 4. flush()

Q.13 What does the 'clone stamp' tool do in image editing?

- Ans**
- ☒ 1. Duplicates part of the image to another area
 - ☐ 2. Resizes the image
 - ☐ 3. Removes background
 - ☐ 4. Changes the image color

Q.14 Suppose there are 15 elements in the array that apply bubble sort technique to sort the elements of the array. What is the maximum number of comparisons, in worst case, required to sort the elements of array in ascending order?

- Ans**
- ☒ 1. 120
 - ☒ 2. 105
 - ☒ 3. 225
 - ☒ 4. 210

Q.15 Which of the following is NOT a property of any algorithms?

- Ans**
- ☒ 1. For all cases, the algorithm must terminate after finite number of instructions.
 - ☒ 2. Some of the algorithms may not produce even single quantity as an output.
 - ☒ 3. Every algorithm must produce at least one quantity as an output.
 - ☒ 4. Each instruction of the algorithm must be clear and unambiguous.

Q.16 Which method is used to loop through all the enumerable properties of an object in JavaScript?

- Ans**
- ☒ 1. for...in
 - ☒ 2. Object.values()
 - ☒ 3. forEach()
 - ☒ 4. Object.keys()

Q.17 Which of the following is an application of the World Wide Web?

- Ans**
- ☒ 1. Browsing websites and accessing online services
 - ☒ 2. Creating software programs
 - ☒ 3. Storing files on a computer
 - ☒ 4. Sending emails directly to a mobile phone

Q.18 Which of the following is true about passing arguments by reference in PHP functions?

- Ans**
- ☒ 1. The original value of the argument is changed when passed by reference.
 - ☒ 2. PHP does not support passing arguments by reference.
 - ☒ 3. Arguments passed by reference must be of type array.
 - ☒ 4. Arguments passed by reference cannot be modified within the function.

Q.19 What is one common use of XML?

- Ans**
- ☒ 1. To create dynamic websites
 - ☒ 2. To store data in a format that is readable by humans only
 - ☒ 3. To enhance the visual appearance of a webpage
 - ☒ 4. To represent and exchange data between different systems and platforms

Q.20 Suppose there are n elements in an array. If we want to delete the beginning element of an array, then how many shift operations are required to fill the gap left by the deleted element?

- Ans**
- ☒ 1. $n * (n - 1) / 2$
 - ☒ 2. $n - 1$
 - ☒ 3. 1
 - ☒ 4. n^2

Q.1

The normal form of the matrix

$$\begin{bmatrix} 1 & 1 & 0 & -2 \\ 2 & 0 & 2 & 2 \\ 4 & 1 & 3 & 1 \end{bmatrix}$$

is _____.

Ans

- ✓ 1. $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix}$
- ✗ 2. $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$
- ✗ 3. $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix}$
- ✗ 4. $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$

Q.2 Which of the following operations is NOT performed by the ALU?

- Ans
- ✗ 1. Logical comparisons
- ✗ 2. Bitwise operations
- ✗ 3. Arithmetic operations
- ✓ 4. Memory addressing

Q.3 In case of a Real Account, the general rule of accounting is:

- Ans
- ✗ 1. Debit the giver and credit the receiver
- ✓ 2. Debit what comes in and credit what goes out
- ✗ 3. Debit expenses or losses, credit incomes or gains
- ✗ 4. Debit the receiver and credit the giver

Q.4 Which of the following is NOT a component of commerce?

- Ans
- ✓ 1. Mining
- ✗ 2. Transportation
- ✗ 3. Warehousing
- ✗ 4. Insurance

Q.5 When exposed to a magnetic field, paramagnetic materials are _____.

- Ans
- ✗ 1. strongly attracted
- ✓ 2. weakly attracted
- ✗ 3. strongly repelled
- ✗ 4. unaffected

Q.6 In designing a microprogrammed control unit, what is stored in the control memory?

- Ans
- ✗ 1. Addressing modes for memory access
- ✓ 2. Microinstructions that define control signals
- ✗ 3. Data values used by the CPU
- ✗ 4. Machine-level instructions

Q.7 Which of the following statements is correct about function prototypes in C?

- Ans
- ✓ 1. Function prototypes tell the compiler the number and type of arguments that are to be passed to the function and the type of value that is to be returned by the function.
- ✗ 2. Function prototype provides the code of the function, which will be executed when called.
- ✗ 3. Function prototypes are typically placed at the end of the code after the main function.
- ✗ 4. Function prototype provides the complete implementation of a function, including the return type, name, parameters, and statements that make up the function's body.

Q.8 In assembly, how is a macro invoked after its definition?

- Ans**
- ☐ 1. By writing its name followed by MACRO
 - ☒ 2. By simply writing its name with any required parameters
 - ☐ 3. By using the JMP instruction
 - ☐ 4. By using the CALL instruction

Q.9 Which of the following statements is/are true?

P: The size of a linked list can grow and shrink dynamically during runtime based on the operations performed.

Q: Unlike arrays, linked lists allow for constant-time access to elements by index.

R: The dynamic nature of linked lists means that memory for nodes is allocated only when necessary, leading to better space utilisation.

- Ans**
- ☐ 1. Only P and Q
 - ☒ 2. Only P and R
 - ☐ 3. P, Q, R
 - ☐ 4. Only P

Q.10 In C programming, which of the following is correct about why all pointers should be set to NULL if they are not pointing to anything?

- Ans**
- ☐ 1. When a pointer is initialized to NULL, it does not help in avoiding dangling pointers (pointers that reference invalid or deallocated memory).
 - ☒ 2. When a pointer is initialized to NULL, it signifies that the pointer does not currently reference any valid memory location.
 - ☐ 3. Setting pointers to NULL is merely a norm and has no effect on program execution.
 - ☐ 4. If a pointer is not pointing to anything, the program won't execute at all, giving a syntax error message.

Q.11 Which of the following options is a Hermitian matrix?

- Ans**
- ☐ 1. $A = \begin{bmatrix} 1 & 2+3i \\ -2-3i & 5 \end{bmatrix}$
 - ☒ 2. $A = \begin{bmatrix} 1 & 2+3i \\ 2-3i & 5 \end{bmatrix}$
 - ☐ 3. $A = \begin{bmatrix} 1 & 2+3i \\ -2+3i & -1 \end{bmatrix}$
 - ☐ 4. $A = \begin{bmatrix} 1 & 2+3i \\ 2+3i & 1 \end{bmatrix}$

Q.12 _____ materials are strongly attracted to regions of high magnetic field intensity due to _____.

- Ans**
- ☐ 1. Ferromagnetic ; domains formed by an applied field
 - ☒ 2. Ferromagnetic ; domains where dipoles align spontaneously
 - ☐ 3. Paramagnetic ; domains where dipoles align spontaneously
 - ☐ 4. Paramagnetic ; domains formed by an applied field

Q.13 Which addressing mode uses the actual address of the data in the instruction?

- Ans**
- ☐ 1. Immediate addressing
 - ☐ 2. Register addressing
 - ☒ 3. Direct addressing
 - ☐ 4. Indirect addressing

Q.14 Suppose in C program, the variable **j** is declared as **int *j**. What is the meaning of operator ***** in this declaration?

- Ans**
- ☐ 1. An integer is multiplied by the value contained in **j**
 - ☐ 2. Allocating memory to **j**
 - ☒ 3. Makes variable **j** as pointer to an integer
 - ☐ 4. Makes variable **j** as integer to float

Q.15 How should the withdrawal of goods from stock by the owner of the business, for personal use, be recorded in books of accounts of an entity?

- Ans**
- ☐ 1. Debiting Purchases account and crediting capital account
 - ☐ 2. Debiting Capital account and crediting drawing account
 - ☐ 3. Debiting Drawing account and crediting cash account
 - ☒ 4. Debiting Drawing account and crediting purchases/stock account

Q.16 A trader purchased goods worth ₹2,50,000 and paid ₹15,000 as carriage on those goods. He sold the goods for ₹3,75,000 and paid ₹10,000 towards carriage on them. He also incurred ₹10,000 towards other general expenditure. What shall be the gross profit of the trader?

- Ans**
- ☐ 1. ₹1,00,000
 - ☐ 2. ₹1,25,000
 - ☐ 3. ₹90,000
 - ☒ 4. ₹1,10,000

Q.17 If the rows are interchanged into columns, then which of the following options is true?

- Ans**
- ☐ 1. Determinant values will be different.
 - ☐ 2. Determinant values will be unity.
 - ☐ 3. Determinant values will have opposite sign.
 - ☒ 4. Determinant value remains unaltered.

Q.18 What is the output of the given C programming code?

```
#include <stdio.h>
void modify(int arr[], int n)
{
    for(int i = 0; i < n; i++)
        arr[i] = arr[i] * 2;
}
int main()
{
    int data[] = {1, 2, 3, 4};
    modify(data, 4);
    printf("%d", data[2]);
    return 0;
}
```

- Ans**
- ☒ 1. 6
 - ☐ 2. 4
 - ☐ 3. 2
 - ☐ 4. 8

Q.19

The conjugate of the matrix

$$\begin{bmatrix} i & 1+i & 3-2i \\ 4 & 2-i & -3i \\ 1-i & 2i & 5 \end{bmatrix}$$
 is _____.

Ans

 1. $\begin{bmatrix} i & -1-i & 3-2i \\ 4 & 2-i & -3i \\ 1-i & -2i & 5 \end{bmatrix}$

 2. $\begin{bmatrix} -i & 1-i & 3+2i \\ 4 & 2+i & 3i \\ 1+i & -2i & 5 \end{bmatrix}$

 3. $\begin{bmatrix} i & 1-i & 3-2i \\ 4 & 2-i & 3i \\ 1-i & -2i & 5 \end{bmatrix}$

 4. $\begin{bmatrix} -i & 1-i & 3-2i \\ 4 & 2-i & 3i \\ 1-i & 2i & 5 \end{bmatrix}$

Q.20

The integrating factor of the differential equation $x \frac{dy}{dx} - y = x^3 - 2x$ is:

Ans

 1. x

 2. e^x

 3. $\log x$

 4. $\frac{1}{x}$

Section : Discipline5

Q.1 Which of the following is NOT an instant messaging service?

Ans

 1. WeChat

 2. Signal

 3. Firefox

 4. Snapchat

Q.2 Suppose that a biased coin is tossed such that $P(H) = 2/3$ and $P(T) = 1/3$. If head (H) appears, a number between is selected between 1 through 9. If tail (T) appears, then a number is selected between 1 through 5. The probability that an even number is selected is approximately equal to:

Ans

 1. 0.87

 2. 0.92

 3. 0.56

 4. 0.43

Q.3 For the set of observations 60,60,60,60,60,60,60,60, the standard deviation is equal to:

Ans

 1. 3.2

 2. 0

 3. 1

 4. 2.5

Q.4 Which of the following is an example of System Software?

- Ans**
- ☐ 1. Database Management System (DBMS)
 - ☒ 2. Compiler
 - ☐ 3. Web Browser
 - ☐ 4. Word Processor

Q.5 Which document defines the scope and objectives of a company and serves as its constitution?

- Ans**
- ☐ 1. Certificate of Incorporation
 - ☒ 2. Memorandum of Association
 - ☐ 3. Articles of Association
 - ☐ 4. Prospectus

Q.6 Which of the following is true about a plotter?

- Ans**
- ☒ 1. It is used to print high-quality graphics and designs.
 - ☐ 2. It is used to input audio data.
 - ☐ 3. It is faster than a laser printer plotter.
 - ☐ 4. It is an input device used for scanning documents.

Q.7 Which of the following features is provided by Google Meet?

- Ans**
- ☐ 1. File management
 - ☐ 2. Photo editing
 - ☐ 3. Audio editing
 - ☒ 4. Video conferencing

Q.8 Which of the following actions demonstrates good netiquette in an online forum?

- Ans**
- ☐ 1. Responding to others' posts with insults
 - ☐ 2. Sharing personal information without permission
 - ☐ 3. Posting irrelevant content repeatedly
 - ☒ 4. Using proper grammar and punctuation

Q.9 Which component is considered the 'brain' of the computer?

- Ans**
- ☐ 1. RAM
 - ☒ 2. CPU
 - ☐ 3. HDD
 - ☐ 4. ROM

Q.10 Which document is mandatory for incorporation of a One Person Company (OPC)?

- Ans**
- ☒ 1. Article of Association
 - ☐ 2. Certificate of Commencement
 - ☐ 3. Trust Deed
 - ☐ 4. Partnership Deed

Section : **Teaching Methodology**

Q.1 Which of the following best describes an open-ended question in a questionnaire?

- Ans**
- ☐ 1. "Circle the correct year of independence: a) 1945 b) 1946 c) 1947 d) 1948"
 - ☒ 2. "List any three reasons why students drop out of school."
 - ☐ 3. "Do you think pollution affects health?" (Yes/No)
 - ☐ 4. "Is your school equipped with smart classrooms? Yes/No"

Q.2 How can curriculum content be gender-equitable for girls who are marginalised?

- Ans**
-  1. By pressuring girls to conform to gender norms
 -  2. By providing literacy instruction that boosts self-esteem and changes people's lives
 -  3. By only imparting advanced scientific knowledge
 -  4. By only using native tongues when instructing

Q.3 The process of acquiring knowledge through observation and experiences is called

- Ans**
-  1. authority
 -  2. empiricism
 -  3. revelation
 -  4. tenacity

Q.4 What is the key method of learning in the behavioristic approach?

- Ans**
-  1. Conditioning
 -  2. Reflection
 -  3. Observation
 -  4. Discussion

Q.5 Which of the following curriculum approaches focuses on real-life problem-solving and interdisciplinary learning?

- Ans**
-  1. Learner-centered
 -  2. Subject-centered
 -  3. Problem-centered
 -  4. Activity-based

Q.6 According to Howard Gardner's theory, which of the following intelligences is NOT a component of multiple intelligences?

- Ans**
-  1. Logical-mathematical
 -  2. Bodily-kinesthetic
 -  3. Musical
 -  4. Emotional

Q.7 The step 'Generalization' in the Herbartian model aims at which of the following?

- Ans**
-  1. Formulating universal rules
 -  2. Providing entertainment to learners
 -  3. Repeating the entire lesson
 -  4. Assigning homework

Q.8 What does the listening mode focus on?

- Ans**
-  1. Constructing meaningful utterances
 -  2. Understanding diagrams
 -  3. Producing written texts
 -  4. Comprehending oral input/intake

Q.9 Which scheme was specifically revised in 1992 to promote education of children with disabilities in mainstream schools?

- Ans**
-  1. Integrated Education for Disabled Children (IEDC)
 -  2. Samagra Shiksha Abhiyan
 -  3. Sarva Shiksha Abhiyan
 -  4. National Inclusive Education Scheme

Q.10 Aesthetics in education primarily focuses on which of the following?

- Ans**
-  1. Competitive exam preparation
 -  2. Developing physical fitness
 -  3. Memorising facts and figures
 -  4. Valuing aesthetic expression

DSSSB Exam September 2025

Test Date	12/09/2025
Test Time	5:00 PM - 7:00 PM
Subject	TGT Computer Science

Section : General intelligence and Reasoning Ability

Q.1 In a certain code language,

'A ! B' means 'A is the father of B',
'A # B' means 'A is the brother of B',
'A + B' means 'A is the sister of B' and
'A % B' means 'A is the wife of B'.

How is W related to E if 'W % A ! S # T + E'?

- Ans  1. Mother's father
 2. Mother
 3. Mother's sister
 4. Mother's mother

Q.2 What should come in place of the question mark (?) in the given series?

708 718 727 735 ?

- Ans  1. 741
 2. 743
 3. 742
 4. 744

Q.3 What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$30 - 40 \times 16 \div 6 + 31 = ?$

- Ans  1. 12
 2. 14
 3. 15
 4. 16

Q.4 Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. No one has exam before U. Only three people have exam between U and V. Only one person has exam between V and P. T has exam on Wednesday. Q has exam on one of the days after S but on one of the days before R. How many people have an exam between R and T?

- Ans  1. Two
 2. One
 3. Four
 4. Three

Q.5 In a certain code language, 'TYRE' is coded as '1673' and 'RITE' is coded as '5637'. What is the code for 'I' in the given code language?

- Ans  1. 3
 2. 5
 3. 7
 4. 6

Q.6 AFHK is related to HMOR in a certain way based on the English alphabetical order. In the same way, GLPO is related to NSWV. To which of the given options is HMQD related, following the same logic?

- Ans**
-  1. NTWL
 -  2. OLPE
 -  3. OTXK
 -  4. ONRE

Q.7 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
-  1. PR - TV
 -  2. DF - IK
 -  3. MO - QS
 -  4. UW - YA

Q.8 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

CHR MRB WBL GLV ?

- Ans**
-  1. VFQ
 -  2. VQF
 -  3. QFV
 -  4. QVF

Q.9 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
-  1. QV - JA
 -  2. UZ - ME
 -  3. CH - UM
 -  4. KP - CU

Q.10 Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given sets?

(NOTE: A two/three digit number cannot be broken into individual digits for operations e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two digit number cannot be broken into individual digits.)

97 - 86 - 75 - 64

104 - 93 - 82 - 71

- Ans**
-  1. 178 - 167 - 146 - 125
 -  2. 154 - 143 - 122 - 111
 -  3. 139 - 128 - 117 - 106
 -  4. 89 - 78 - 67 - 46

Q.11 This question is based on the following words.

(Left) JAIL, WINE, TINY, LEAN (Right)

In each of the words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. In how many letter-clusters thus formed, will no vowel appear?

- Ans**
-  1. None
 -  2. One
 -  3. Two
 -  4. Three

Q.12 Radhika ranked 10th from the top and 17th from the bottom in her class. How many students are there in the class?

- Ans**
- ☒ 1. 26
 - ☐ 2. 30
 - ☐ 3. 35
 - ☐ 4. 27

Q.13 Given below is a statement followed by two possible reasons numbered I and II. Read the statement carefully and decide which of the two reasons explain(s) the event/observation/information given in the statement.

Statement: Despite having favourable climatic conditions for banana farming, District A has not become a major centre for banana exports in the country.

Reasons:

I. The road infrastructure connecting District A to major ports and markets is inadequate.

II. District B already meets 50% of the country's banana export demand.

- Ans**
- ☐ 1. Neither I nor II is a possible reason.
 - ☒ 2. Only I is a possible reason.
 - ☐ 3. Both I and II are possible reasons.
 - ☐ 4. Only II is a possible reason.

Q.14 If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '−', then what will come in place of question mark (?) in the following equation?

81 A 9 C 86 D 12 B 4 =?

- Ans**
- ☐ 1. 50
 - ☐ 2. 55
 - ☒ 3. 47
 - ☐ 4. 52

Q.15 Six students are sitting around a circular table facing the centre. Falak is an immediate neighbour of both Bala and Daya. Charan is sitting to the immediate left of Daya. Esha is sitting third to the right of Falak. Abha is an immediate neighbour of both Bala and Esha. How many people sit between Bala and Charan when counted from the left of Charan?

- Ans**
- ☐ 1. One
 - ☐ 2. Three
 - ☐ 3. Four
 - ☒ 4. Two

Q.16 Which of the given letter-number clusters will replace the question mark (?) in the following series to make it logically complete?

FOL83, RAX115, DMJ147, PYV179, ?

- Ans**
- ☐ 1. BKH210
 - ☒ 2. BKH211
 - ☐ 3. DKH211
 - ☐ 4. BOH211

Q.17 Shekhar starts from Point A and drives 5 km towards the north. He then takes a right turn, drives 8 km, turns right and drives 11 km. He then takes a right turn and drives 9 km. He takes a final right turn, drives 6 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only, unless specified.)

- Ans**
- ☐ 1. 2 km to the east
 - ☐ 2. 1 km to the west
 - ☒ 3. 1 km to the east
 - ☐ 4. 2 km to the west

Q.18 This question is based on the five, three-digit numbers given below.

(Left) 823 594 712 345 567 (Right)

(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

(NOTE: All operations to be done from left to right.)

If all the numbers are arranged in ascending order from left to right, the position(s) of how many numbers will remain unchanged?

- Ans**
- ☒ 1. 2
 - ☒ 2. 1
 - ☒ 3. 3
 - ☒ 4. 0

Q.19 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

No trouser is a jean.

No jean is a frog.

No jean is an hen.

Conclusions:

(I): No trouser is a frog.

(II): Some hens are frogs.

- Ans**
- ☒ 1. Neither conclusion (I) nor (II) follows.
 - ☒ 2. Both conclusions (I) and (II) follow.
 - ☒ 3. Only conclusion (I) follows.
 - ☒ 4. Only conclusion (II) follows.

Q.20 26 is related to 13 following a certain logic. Following the same logic, 74 is related to 37. To which of the given options is 82 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- Ans**
- ☒ 1. 41
 - ☒ 2. 44
 - ☒ 3. 42
 - ☒ 4. 40

Section : **General Awareness**

Q.1 Which of the following authors describes the life of a little boy in the quaint Indian town of Malgudi?

- Ans**
- ☒ 1. RK Narayan
 - ☒ 2. Mulk Raj Anand
 - ☒ 3. Sudha Murti
 - ☒ 4. Khushwant Singh

Q.2 The Nepal Himalayas is demarcated by the _____ and Teesta rivers.

- Ans**
- ☒ 1. Kali
 - ☒ 2. Beas
 - ☒ 3. Kosi
 - ☒ 4. Gandak

Q.3 In 1927, the British Government in England decided to send a Commission under the chairmanship of _____ to decide the political future of India.

- Ans**
- ☐ 1. Sir Louis Mountbatten
 - ☐ 2. Sir Charles Hardinge
 - ☐ 3. Sir George Curzon
 - ☒ 4. Sir John Simon

Q.4 Which hybridisation of carbon is more acidic?

- Ans**
- ☒ 1. sp
 - ☐ 2. sp²d
 - ☐ 3. sp²
 - ☐ 4. sp³

Q.5 Which of the following statements is **INCORRECT** about hypersonic missile trial in India?

- Ans**
- ☐ 1. This breakthrough puts India among an elite group of nations like the US, Russia and China.
 - ☐ 2. This missile has been indigenously developed by the laboratories of Dr. APJ Abdul Kalam Missile complex, Hyderabad, along with various other DRDO laboratories and Industry Partners.
 - ☐ 3. This hypersonic missile is designed to carry various payloads for ranges greater than 1500 km for the Armed Forces.
 - ☒ 4. Indian Space Research Organisation (ISRO) conducted a successful flight-trial of India's first long-range hypersonic missile in November 2024.

Q.6 As of March 2025, who is the Union Minister of External Affairs for India?

- Ans**
- ☐ 1. Piyush Goyal
 - ☐ 2. Shivraj Singh Chouhan
 - ☐ 3. Dharmendra Pradhan
 - ☒ 4. Dr. Subrahmanyam Jaishankar

Q.7 Which Union Territory was established in 2019 without a legislature?

- Ans**
- ☒ 1. Ladakh
 - ☐ 2. Chandigarh
 - ☐ 3. Puducherry
 - ☐ 4. Daman and Diu

Q.8 As per Article 317 of the Indian Constitution, the Chairman or any other member of the State Public Service Commission (SPSC) can be removed by the _____.

- Ans**
- ☐ 1. Governor of state
 - ☒ 2. President of India
 - ☐ 3. Chief Minister of state
 - ☐ 4. Prime Minister of India

Q.9 Ranjit Sagar Dam is located in which of the following states?

- Ans**
- ☒ 1. Punjab
 - ☐ 2. Maharashtra
 - ☐ 3. Rajasthan
 - ☐ 4. Bihar

Q.10 The Khajuraho Monuments were built in the 10th and 11th centuries in the Nagara Style by the _____ dynasty.

- Ans**
- ☐ 1. Holkar
 - ☐ 2. Solanki
 - ☐ 3. Satavahana
 - ☒ 4. Chandela

Q.11 _____ contrasting characters were carried out by Mendel in garden pea.

- Ans**
- ☒ 1. Nine
 - ☒ 2. Two
 - ☒ 3. Seven
 - ☒ 4. Four

Q.12 Which of the following has been merged into the Receipts Budget from 2016-17 onwards in India?

- Ans**
- ☒ 1. Statement of Capital Receipts
 - ☒ 2. Statement of Revenue Foregone
 - ☒ 3. Statement of Assets
 - ☒ 4. Statement of External Assistance

Q.13 When did brothers Sidhu and Kanhu Murmu start the Santhal Rebellion, a major armed rebellion against the British East India Company and the Zamindari system?

- Ans**
- ☒ 1. 1855
 - ☒ 2. 1861
 - ☒ 3. 1859
 - ☒ 4. 1858

Q.14 Which country has become the first in the world to receive the World Health Organization (WHO) verification for eliminating leprosy, a significant public health milestone?

- Ans**
- ☒ 1. India
 - ☒ 2. Jordan
 - ☒ 3. Japan
 - ☒ 4. Philippines

Q.15 Which of the following rivers flows in Rajasthan and Gujarat?

- Ans**
- ☒ 1. Tapi and Narmada
 - ☒ 2. Luni and Tapi
 - ☒ 3. Luni and Sabarmati
 - ☒ 4. Tapi and Betwa

Q.16 Who became the first Indian woman to record two consecutive ODI hundreds during the second ODI against South Africa at the M Chinnaswamy Stadium in Bengaluru in June 2024?

- Ans**
- ☒ 1. Shafali Sharma
 - ☒ 2. Smriti Mandhana
 - ☒ 3. Deepti Sharma
 - ☒ 4. Harmanpreet Kaur

Q.17 When was the Verma Committee on Fundamental Duties of Citizens set up by the Indian Government to look into the practical aspects of Fundamental Duties and suggest actions that can inform and educate people about the need of abiding by them?

- Ans**
- ☒ 1. 1999
 - ☒ 2. 1991
 - ☒ 3. 1993
 - ☒ 4. 2001

Q.18 Which of the following acids is often added to canned food and beverages to keep them fresh for a longer period?

- Ans**
- ☒ 1. Citric acid
 - ☒ 2. Ascorbic acid
 - ☒ 3. Hydroiodic acid
 - ☒ 4. Tannic acid

Q.19 The imposition of restrictions on imports by the government in the form of taxes is called _____.

- Ans**
- ☐ 1. excise duty
 - ☒ 2. tariff
 - ☐ 3. restricted revenue
 - ☐ 4. tariff barrier

Q.20 The part of the shadow where all the light coming from the source is blocked by the object being shadowed is called:

- Ans**
- ☒ 1. umbra
 - ☐ 2. penumbra
 - ☐ 3. antumbra
 - ☐ 4. dynumbra

Section : **Arithmetical and Numerical Ability**

Q.1 The average price of three items of furniture is ₹17,310. If their prices are in the ratio 3 : 5 : 7, the price of the costliest item (in ₹) is:

- Ans**
- ☐ 1. 10,386
 - ☒ 2. 24,234
 - ☐ 3. 5,770
 - ☐ 4. 8,078

Q.2 In a test, B got 66 marks while A got 80 marks, out of maximum marks of 85. What percentage (approx.) of B's marks was A's marks?

- Ans**
- ☐ 1. 94.12
 - ☐ 2. 82.5
 - ☒ 3. 121.21
 - ☐ 4. 85

Q.3 Train A runs at a constant speed of 50 m/s whereas Train B runs at a speed of 40 m/s for the first hour, 50 m/s for the next hour, 60 m/s for the third hour and so on. If the trains have to cover a distance of 500 km each, what will be the difference in the time taken (in minutes) by the two trains?

- Ans**
- ☐ 1. $3\frac{4}{27}$
 - ☐ 2. $\frac{1}{7}$
 - ☒ 3. $2\frac{2}{9}$
 - ☐ 4. $1\frac{1}{3}$

Q.4 If a number is divisible by both 4 and 6, it must also be divisible by:

- Ans**
- ☐ 1. 18
 - ☐ 2. 10
 - ☐ 3. 8
 - ☒ 4. 12

Q.5 Simplify the following expression.

$$(15 \times 19) \times \left\{ 3 \div 3 \times \frac{(19 - 15)}{4} \right\}$$

- Ans**
- ☐ 1. 274
 - ☒ 2. 285
 - ☐ 3. 302
 - ☐ 4. 298

Q.6 The sum of the length, breadth and height of a cuboid is 29 m. If the length of its diagonal is 17 m, then what is the total surface area (in sq. m) of the cuboid?

- Ans
- ☐ 1. 497
 - ☐ 2. 529
 - ☐ 3. 441
 - ☒ 4. 552

Q.7 $9.333\ldots + 6.444\ldots$ in fraction form is _____.

- Ans
- ☐ 1. $\frac{134}{17}$
 - ☒ 2. $\frac{142}{9}$
 - ☐ 3. $\frac{151}{11}$
 - ☐ 4. $\frac{145}{18}$

Q.8 A shopkeeper sells an item for ₹128.10 after giving two successive discounts of 85% and 50% on its marked price. Had he not given any discount, he would have earned a profit of 22%. What is the cost price (in ₹) of the item?

- Ans
- ☒ 1. 1,400
 - ☐ 2. 1,397
 - ☐ 3. 1,398
 - ☐ 4. 1,414

Q.9 The value of $\left(\frac{15625}{64}\right)^{-\frac{3}{2}} \times \left(\frac{5}{8}\right)^3 \div (625)^{-\frac{3}{4}}$ is:

- Ans
- ☒ 1. $\frac{1}{125}$
 - ☐ 2. $\frac{1}{118}$
 - ☐ 3. $\frac{1}{122}$
 - ☐ 4. $\frac{1}{117}$

Q.10 Veer can do a piece of work in 14 hours and Manoj can do it in 27 hours. With the assistance of Anand, they completed the work in 9 hours. In how many hours can Anand alone do the work?

- Ans
- ☐ 1. 380
 - ☐ 2. 379
 - ☐ 3. 377
 - ☒ 4. 378

Q.11 Two pipes can fill a tank in T hours and 15 hours, respectively. A waste pipe can empty the full tank in 18 hours. When all three pipes are open, they can fill the tank in 9 hours. The value of T is:

- Ans
- ☐ 1. 12
 - ☒ 2. 10
 - ☐ 3. 11
 - ☐ 4. 9

Q.12 The ratio of numbers of girls and boys in a school is 1 : 5. If the number of girls is 232, determine the number of boys.

- Ans
- ☐ 1. 1190
 - ☐ 2. 1135
 - ☐ 3. 1180
 - ☒ 4. 1160

Q.13 A sum of ₹5,000 was lent for a period of 2 years 6 months at the rate of 10% per annum, interest compounded annually. Find the compound interest.

- Ans
- ☒ 1. ₹1,352.50
 - ☐ 2. ₹1,452.50
 - ☐ 3. ₹1,552.50
 - ☐ 4. ₹1,650.50

Q.14 The area of a square plot is 39601 m^2 . The length of each side of the plot (in m) is:

- Ans
- ☐ 1. 189
 - ☒ 2. 199
 - ☐ 3. 201
 - ☐ 4. 191

Q.15 If the ratio of the volume of two hemispheres is 64 : 125, then what is the ratio of their total surface area?

- Ans
- ☐ 1. 9 : 25
 - ☐ 2. 4 : 5
 - ☒ 3. 16 : 25
 - ☐ 4. 3 : 5

Q.16 A wholesaler sells apples at ₹P per hundred to a retailer. The retailer spends 10% of P on transportation and sells them to shopkeepers at a 10% profit. The shopkeeper sells apples to customers at ₹30.25 per piece and earns a 25% profit. Find the value of P.

- Ans
- ☐ 1. 2,100
 - ☐ 2. 2,225
 - ☒ 3. 2,000
 - ☐ 4. 2,150

Q.17 The average marks of 17 students in a class is 39. If the marks of each student are doubled, find the new average.

- Ans
- ☐ 1. 39
 - ☐ 2. 34
 - ☒ 3. 78
 - ☐ 4. 17

Q.18 Amit's income in 2019 was ₹24,200. He gets an increment of 10% every year. What was his income (in ₹) in 2021?

- Ans
- ☐ 1. 24,200
 - ☐ 2. 26,620
 - ☐ 3. 29,040
 - ☒ 4. 29,282

Q.19 Sapna invested ₹20,300 on simple interest, partly at 3% per annum and partly at 4% per annum. If she earns equal interests from the two investments after 7 years, then find the sum invested at 3% per annum (in ₹).

- Ans
- ☐ 1. 11,599
 - ☐ 2. 11,598
 - ☒ 3. 11,600
 - ☐ 4. 11,597

Q.20 $6522.5 \times 317.6 \times 0.6127$ is equal in value to:

- Ans**
-  1. $6.5225 \times 31.76 \times 61.27$
 -  2. $6.5225 \times 3.176 \times 612.7$
 -  3. $65.225 \times 3176 \times 6.127$
 -  4. $652.25 \times 317.6 \times 612.7$

Section : **Test of English Language and Comprehension**

Q.1 Select the most appropriate option to fill in the blank.

He spoke impressively at the meeting _____ won the appreciation of the audience.

- Ans**
-  1. also
 -  2. for
 -  3. but
 -  4. and

Q.2 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

P- Self-management is thus defined as the 'individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and lifestyle changes inherent in living with a chronic condition'.

Q- Supporting people in decisions and actions that promote self-management is called self-management support requiring a cooperative relationship between the patient, the family, and the professionals.

R- Having control means, among other things, that patients themselves perform self-management activities.

S- Most people with progressive diseases like dementia prefer to have control over their own lives and healthcare for as long as possible.

- Ans**
-  1. QPRS
 -  2. PSQR
 -  3. RSQP
 -  4. SRPQ

Q.3 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

I had _____ late dinner today.

- Ans**
-  1. the
 -  2. No article required
 -  3. a
 -  4. an

Q.4 Select the sentence that contains no spelling errors.

- Ans**
-  1. She has nausea.
 -  2. She has nausea.
 -  3. She has noseya.
 -  4. She has nosea.

Q.5 Sentences of a paragraph are given below. While the first and the last sentences (S1 and S6) are in the correct order, the sentences in between are jumbled up. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

S1. There is nothing strange in the fact that so many foreign students should wish to learn English.
P. If any valuable book is written in another language, an English translation of it is sure to be speedily published.
Q. Anyone who masters the English tongue acquires a key.
R. Most books found to be generally useful are written in English.
S. The English speaking people want no monopoly of knowledge.
S6. This key will open to him whatever is valuable in the literature of the world.

- Ans**
- ☒ 1. RPSQ
 - ☐ 2. PQSR
 - ☐ 3. SQRP
 - ☐ 4. PSQR

Q.6 Select the option that can be used as a one-word substitute for the highlighted phrase in the given sentence.

The awards ceremony celebrated the remarkable contributions of individuals who have made a significant difference in society. Their showing a concern for the welfare of others contributions, were recognised as examples of true dedication and compassion.

- Ans**
- ☒ 1. philanthropic
 - ☐ 2. pathetic
 - ☐ 3. energetic
 - ☐ 4. linguistic

Q.7 Select the most appropriate meaning of the given proverb.

All that glitters is not gold

- Ans**
- ☒ 1. Appearances can be deceptive
 - ☐ 2. Gold is the most precious metal
 - ☐ 3. Everything valuable shines
 - ☐ 4. Beauty is the most important quality

Q.8 Select the correct spelling of the incorrectly spelt word in the given sentence.

The accomodation provided by the company was satisfactory.

- Ans**
- ☐ 1. accomodition
 - ☐ 2. acomodition
 - ☐ 3. accommadation
 - ☒ 4. accommodation

Q.9 Select the most appropriate synonym of the given word.

Opaque

- (A) Pellucid
(B) Obvious
(C) Murky
(D) Intelligible

- Ans**
- ☐ 1. D
 - ☐ 2. A
 - ☐ 3. B
 - ☒ 4. C

Q.10 Select the most appropriate ANTONYM of the underlined word in the given sentence.

She was quite impervious to punishment.

- Ans**
- ☐ 1. Impenetrable
 - ☐ 2. Tight
 - ☒ 3. Malleable
 - ☐ 4. Impermeable

Q.11 Select the most appropriate option to fill in the blank.

The committee will discuss the proposal _____ the budget plan.

- Ans**
- ☐ 1. but also
 - ☒ 2. as well as
 - ☐ 3. along
 - ☐ 4. while

Q.12 Select the most appropriate option to fill in the blank.

Only _____ countries could realise the importance of peace and decided to enter into peace treaty.

- Ans**
- ☐ 1. few
 - ☒ 2. a few
 - ☐ 3. the few
 - ☐ 4. less

Q.13 Select the most appropriate meaning of the given proverb.

A stitch in time saves nine.

- Ans**
- ☒ 1. Taking quick action prevents bigger problems.
 - ☐ 2. Making a mistake is acceptable if the intention is pure.
 - ☐ 3. Overthinking a problem leads to solutions.
 - ☐ 4. Delaying action leads to better decisions.

Q.14 Select the option that can be used as a one-word substitute for the underlined group of words/phrase in the given paragraph.

The village was a place of both hope and hardship. In between the worn houses and barren fields, the people faced the state of lacking sufficient money or material possessions, struggling to make ends meet. Yet, despite the poverty, they found strength in one another.

- Ans**
- ☐ 1. luxury
 - ☒ 2. penury
 - ☐ 3. perjury
 - ☐ 4. century

Q.15 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

Vimal wrote _____ letter to his grandmother.

- Ans**
- ☐ 1. No article required
 - ☒ 2. a
 - ☐ 3. an
 - ☐ 4. the

Comprehension:

Read the given passage and answer the questions that follow.

Imagine an India where every prisoner is not just serving time but also preparing for a second chance at life. Education behind bars is often an overlooked solution to reducing recidivism, fostering economic reintegration, and building a more inclusive society. With India's prison population exceeding 5.5 lakh inmates as of 2023, tapping into this human potential can address critical socio-economic challenges through Prison Education in India. India's prisons are largely overcrowded, operating at 130% of their capacity. Nearly 77% of inmates are under trials, many of whom lack access to quality education or vocational training. This underutilises a massive workforce that could contribute to the nation's economy if equipped with relevant knowledge and skills. While India has made strides in prison reforms, education for prisoners remains an area with significant potential. The National Policy on Prison Reforms 2017 emphasises the importance of education and skill development within prisons. However, challenges such as inadequate infrastructure, limited resources, and lack of trained personnel hinder the full implementation of these policies. While some prisons offer basic literacy programs, these initiatives are sparse and lack a structured curriculum. For example, the Tihar Jail in Delhi and Yerawada Jail in Pune run vocational courses, but only a small percentage of prisoners benefit from them. A 2022 study by the National Crime Records Bureau (NCRB) shows that educated prisoners are 50% less likely to reoffend compared to their uneducated counterparts. Literacy not only empowers them but also instils a sense of responsibility.

SubQuestion No : 16

Q.16 Which of the following best summarises the passage?

- Ans**
- ☒ 1. India's prison system is too overcrowded to implement reforms.
 - ☒ 2. Prisoners in India are more likely to commit crimes again due to their criminal tendencies.
 - ☒ 3. Prison education is an underutilised but promising tool for rehabilitation and social reintegration in India.
 - ☒ 4. The National Crime Records Bureau needs to track prison reform more effectively.

Comprehension:

Read the given passage and answer the questions that follow.

Imagine an India where every prisoner is not just serving time but also preparing for a second chance at life. Education behind bars is often an overlooked solution to reducing recidivism, fostering economic reintegration, and building a more inclusive society. With India's prison population exceeding 5.5 lakh inmates as of 2023, tapping into this human potential can address critical socio-economic challenges through Prison Education in India. India's prisons are largely overcrowded, operating at 130% of their capacity. Nearly 77% of inmates are under trials, many of whom lack access to quality education or vocational training. This underutilises a massive workforce that could contribute to the nation's economy if equipped with relevant knowledge and skills. While India has made strides in prison reforms, education for prisoners remains an area with significant potential. The National Policy on Prison Reforms 2017 emphasises the importance of education and skill development within prisons. However, challenges such as inadequate infrastructure, limited resources, and lack of trained personnel hinder the full implementation of these policies. While some prisons offer basic literacy programs, these initiatives are sparse and lack a structured curriculum. For example, the Tihar Jail in Delhi and Yerawada Jail in Pune run vocational courses, but only a small percentage of prisoners benefit from them. A 2022 study by the National Crime Records Bureau (NCRB) shows that educated prisoners are 50% less likely to reoffend compared to their uneducated counterparts. Literacy not only empowers them but also instils a sense of responsibility.

SubQuestion No : 17

Q.17 What is the central theme of the passage?

- Ans**
- ☒ 1. The role of the judiciary in reforming the prison system
 - ☒ 2. Overcrowding in India's prisons
 - ☒ 3. The potential of prison education in addressing social and economic challenges
 - ☒ 4. The importance of literacy in reducing crime rates

Comprehension:

Read the given passage and answer the questions that follow.

Imagine an India where every prisoner is not just serving time but also preparing for a second chance at life. Education behind bars is often an overlooked solution to reducing recidivism, fostering economic reintegration, and building a more inclusive society. With India's prison population exceeding 5.5 lakh inmates as of 2023, tapping into this human potential can address critical socio-economic challenges through Prison Education in India. India's prisons are largely overcrowded, operating at 130% of their capacity. Nearly 77% of inmates are under trials, many of whom lack access to quality education or vocational training. This underutilises a massive workforce that could contribute to the nation's economy if equipped with relevant knowledge and skills. While India has made strides in prison reforms, education for prisoners remains an area with significant potential. The National Policy on Prison Reforms 2017 emphasises the importance of education and skill development within prisons. However, challenges such as inadequate infrastructure, limited resources, and lack of trained personnel hinder the full implementation of these policies. While some prisons offer basic literacy programs, these initiatives are sparse and lack a structured curriculum. For example, the Tihar Jail in Delhi and Yerawada Jail in Pune run vocational courses, but only a small percentage of prisoners benefit from them. A 2022 study by the National Crime Records Bureau (NCRB) shows that educated prisoners are 50% less likely to reoffend compared to their uneducated counterparts. Literacy not only empowers them but also instils a sense of responsibility.

SubQuestion No : 18

Q.18 Which best describes the structure of the passage?

- Ans**
- ☒ 1. Historical background → Personal story → Policy suggestion
 - ☒ 2. Narrative → Counterargument → Rebuttal
 - ☒ 3. Problem statement → Supporting data → Challenges → Proposed direction
 - ☒ 4. Case study → Statistical analysis → Conclusion

Comprehension:

Read the given passage and answer the questions that follow.

Imagine an India where every prisoner is not just serving time but also preparing for a second chance at life. Education behind bars is often an overlooked solution to reducing recidivism, fostering economic reintegration, and building a more inclusive society. With India's prison population exceeding 5.5 lakh inmates as of 2023, tapping into this human potential can address critical socio-economic challenges through Prison Education in India. India's prisons are largely overcrowded, operating at 130% of their capacity. Nearly 77% of inmates are under trials, many of whom lack access to quality education or vocational training. This underutilises a massive workforce that could contribute to the nation's economy if equipped with relevant knowledge and skills. While India has made strides in prison reforms, education for prisoners remains an area with significant potential. The National Policy on Prison Reforms 2017 emphasises the importance of education and skill development within prisons. However, challenges such as inadequate infrastructure, limited resources, and lack of trained personnel hinder the full implementation of these policies. While some prisons offer basic literacy programs, these initiatives are sparse and lack a structured curriculum. For example, the Tihar Jail in Delhi and Yerawada Jail in Pune run vocational courses, but only a small percentage of prisoners benefit from them. A 2022 study by the National Crime Records Bureau (NCRB) shows that educated prisoners are 50% less likely to reoffend compared to their uneducated counterparts. Literacy not only empowers them but also instils a sense of responsibility.

SubQuestion No : 19

Q.19 What can be inferred about the role of education in prisoners' lives?

- Ans**
- ☒ 1. Education programs in prisons are only for a small group of prisoners.
 - ☒ 2. Education is seen as a way to maintain control over prisoners.
 - ☒ 3. Education is not necessary for prisoners' improvement.
 - ☒ 4. Education helps in the rehabilitation of prisoners and their reintegration into society.

Comprehension:

Read the given passage and answer the questions that follow.

Imagine an India where every prisoner is not just serving time but also preparing for a second chance at life. Education behind bars is often an overlooked solution to reducing recidivism, fostering economic reintegration, and building a more inclusive society. With India's prison population exceeding 5.5 lakh inmates as of 2023, tapping into this human potential can address critical socio-economic challenges through Prison Education in India. India's prisons are largely overcrowded, operating at 130% of their capacity. Nearly 77% of inmates are under trials, many of whom lack access to quality education or vocational training. This underutilises a massive workforce that could contribute to the nation's economy if equipped with relevant knowledge and skills. While India has made strides in prison reforms, education for prisoners remains an area with significant potential. The National Policy on Prison Reforms 2017 emphasises the importance of education and skill development within prisons. However, challenges such as inadequate infrastructure, limited resources, and lack of trained personnel hinder the full implementation of these policies. While some prisons offer basic literacy programs, these initiatives are sparse and lack a structured curriculum. For example, the Tihar Jail in Delhi and Yerawada Jail in Pune run vocational courses, but only a small percentage of prisoners benefit from them. A 2022 study by the National Crime Records Bureau (NCRB) shows that educated prisoners are 50% less likely to reoffend compared to their uneducated counterparts. Literacy not only empowers them but also instils a sense of responsibility.

SubQuestion No : 20

Q.20 What can be inferred about the current state of prison education in India?

- Ans**
- ☒ 1. It is supported by policy but poorly implemented due to logistical challenges.
 - ☒ 2. It is not considered a priority by the government.
 - ☒ 3. It is only available to convicted criminals, not undertrials.
 - ☒ 4. It is widespread and has significantly reduced the crime rate.

Section : Test of Hindi Language and Comprehension

Q.1 'इस जग में -----जल भर दो।' वाक्य के रिक्त स्थान के लिए उपयुक्त क्रिया -विशेषण पद है-

- Ans**
- ☒ 1. लाज़ा
 - ☒ 2. गंगा
 - ☒ 3. शीतल
 - ☒ 4. आज

Q.2 'अभिसरण' शब्द के उपयुक्त विलोम का चयन करें

- Ans**
- ☒ 1. अहर्ता
 - ☒ 2. अनभ्यस्त
 - ☒ 3. अपसरण
 - ☒ 4. अभिहित

Q.3	निम्नलिखित लोकोक्ति के उपयुक्त अर्थ का चयन करें बासी बचे न कुत्ता खाए
Ans	✗ 1. बुढ़ापा में अनेक कष्ट ✗ 2. भूख लगी हो तो कुछ नहीं होता ✗ 3. ज्ञानी गंभीर होता है ✓ 4. ज़रूरत भर की चीज़
Q.4	निम्नलिखित में से कौन सा एक वाक्य वर्तनी की दृष्टि से अशुद्ध है?
Ans	✗ 1. पति और पत्नी मैदान में बैठे हैं । ✓ 2. आजकल वह हिन्दी लिखने की अभ्यस कर रहा है । ✗ 3. उसे छूने का साहस कोई नहीं कर सकता है । ✗ 4. बेंच में एक पुरुष और एक महिला बैठे थे ।
Q.5	उपयुक्त 'कारक चिह्न' का प्रयोग कर वाक्य को पूर्ण कीजिए । 'कृष्णकंस को मारा ।'
Ans	✗ 1. के लिए ✓ 2. ने ✗ 3. से ✗ 4. को
Q.6	निम्नलिखित वाक्यों में से अतिरिक्त वाक्य का चयन करें -
Ans	✓ 1. मानव मन अनगिनत विचारों और संभावनाओं का एक अथाह सागर है ✗ 2. वनों की अंधाधुंध कटाई, प्रदूषण और प्राकृतिक संसाधनों के अत्यधिक उपयोग से पृथ्वी का संतुलन बिगड़ता जा रहा है ✗ 3. आज के आधुनिक युग में विकास के नाम पर पर्यावरण का अत्यधिक दोहन किया जा रहा है ✗ 4. यदि हम पर्यावरण को नष्ट करेंगे, तो हमारा अस्तित्व भी खतरे में पड़ जाएगा
Q.7	'न बहुत ठंडा न बहुत गर्म' वाक्यांश के लिए एक सार्थक शब्द होगा -
Ans	✗ 1. समवाय ✓ 2. समशीतोष्ण ✗ 3. समागम ✗ 4. समवत्त
Q.8	'मैंने -----अखबार पढ़ा ।' वाक्य के रिक्त स्थान के लिए उपयुक्त क्रिया-विशेषण पद है-
Ans	✗ 1. पुराना ✗ 2. उर्दू ✓ 3. अभी-अभी ✗ 4. दैनिक जागरण
Q.9	दिए गए वाक्यों में से अतिरिक्त वाक्य का चयन कीजिए ।
Ans	✗ 1. मन को भरमाने वाली तरकीबें इन्हीं धर्म ग्रंथों में नियोजित की गयी हैं । ✓ 2. जाहिर है, उक्त सूचि दलित शब्द का बहुत व्यापक अर्थ प्रस्तुत करती है । ✗ 3. कबीर आदि संतों ने धर्मशास्त्रों पर भरपूर चोट की । ✗ 4. सिद्धों ने इसी से शास्त्रों को भ्रम फैलाने वाला कहा है ।
Q.10	'जन्म लेना और मरना' वाक्यांश के लिए सार्थक शब्द होगा -
Ans	✗ 1. अवगाहन ✓ 2. आवागमन ✗ 3. अभिनन्दन ✗ 4. अवलोकन
Q.11	'मेरे पतंग की डोर ----- ।' वाक्य के रिक्त स्थान के लिए उपयुक्त क्रिया पद है-
Ans	✗ 1. लंबी है ✓ 2. मत काटो ✗ 3. विदेशी है ✗ 4. पतली है

Q.12 'मलिन' का विलोम शब्द पहचानें-

- Ans
- ☒ 1. निर्मल
 - ☐ 2. गंदा
 - ☐ 3. चापाल
 - ☐ 4. बहिर

Q.13 निम्नलिखित वाक्य को दिए गए विकल्पों में से उपयुक्त कारक से पूरा करें-

आरती ,शालू और मेघा अष्टम वर्ग_____ पढ़ती हैं

- Ans
- ☐ 1. को
 - ☐ 2. से
 - ☒ 3. में
 - ☐ 4. पर

Q.14 निम्नलिखित लोकोक्ति के उपयुक्त अर्थ का चयन करें
ले दही, दे दही

- Ans
- ☐ 1. एक से बढ़कर एक
 - ☐ 2. गन्दी लिखावट
 - ☒ 3. गरज़ का सौदा
 - ☐ 4. कुछ मतलब न रखना

Q.15 निम्नलिखित वाक्य के रेखांकित पद में वर्तनी संबंधी अशुद्धि है। दिए गए विकल्पों में से सही वर्तनी वाला शब्द चुनिए-
ईश्वरचंद्र विद्यासागर निराभिमान व्यक्ति थे

- Ans
- ☐ 1. निराभीमण
 - ☐ 2. निराभीमान
 - ☒ 3. निरभिमान
 - ☐ 4. निर्भिमान

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

चित्र-कला का मौन राग अलापने लग जाता है; वक्ता चुप हो जाता है; लेखक की लेखनी थम जाती है; मूर्ति बनाने वाले के सामने नए कपोल, नए नयन और नई छवि का दृश्य उपस्थित हो जाता है।

आचरण की सभ्यतामय भाषा सदा मौन रहती है। इस भाषा का निघंटु शुद्ध श्वेत पत्रों वाला है। इसमें नाम मात्र के लिए भी शब्द नहीं। यह सभ्याचरण नाद करता हुआ भी मौन है, व्याख्यान देता हुआ भी व्याख्यान के पीछे छिपा है, राग गाता हुआ भी राग के सुर के भीतर पड़ा है। मृदु वचनों की मिठास में आचरण की सभ्यता मौन रूप से खुली हुई है। नम्रता, दया, प्रेम और उदारता सबके सब सभ्याचरण की भाषा के मौन व्याख्यान हैं। मनुष्य के जीवन पर मौन व्याख्यान का प्रभाव चिरस्थायी होता है और उसकी आत्मा का एक अंग हो जाता है।

न काला, न नीला, न पीला, न सफ़ेद, न पूर्वी, न पश्चिमी न उत्तरी न दक्षिणी, बे नाम, बे निशान, बे मकान—विशाल आत्मा के आचरण से मौनरूपिणी, सुगंधि सदा प्रसारित हुआ करती है। इसके मौन से प्रसूत प्रेम और

पवित्रता-धर्म सारे जगत् का कल्याण करके विस्तृत होते हैं। इसकी उपस्थिति से मन और हृदय की ऋतु बदल जाते हैं। तीक्ष्ण गर्मी से जले भुने व्यक्ति आचरण के काले बादलों की बूँदाबूँदी से शीतल हो जाते हैं। मानसोत्पन्न शरदऋतु से क्लेशातुर हुए पुरुष इसकी सुगंधमय अटल वसंत ऋतु के आनंद का पान करते हैं। आचरण के नेत्र के एक अश्रु से जगत् भर के नेत्र भीग जाते हैं। आचरण के आनंद-नृत्य से उन्मदिष्ट होकर वृक्षों और पर्वतों तक के हृदय नृत्य करने लगते हैं। आचरण के मौन व्याख्यान से मनुष्य को एक नया जीवन प्राप्त होता है।

SubQuestion No : 16

Q.16 किसकी भाषा सदा मौन रहती है ?

- Ans
- ☒ 1. सभ्याचरण
 - ☐ 2. कला
 - ☐ 3. मौन व्याख्यान
 - ☐ 4. आत्मा

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

चित्र-कला का मौन राग अलापने लग जाता है; वक्ता चुप हो जाता है; लेखक की लेखनी थम जाती है; मूर्ति बनाने वाले के सामने नए कपोल, नए नयन और नई छवि का दृश्य उपस्थित हो जाता है।

आचरण की सभ्यतामय भाषा सदा मौन रहती है। इस भाषा का निघंटु शुद्ध श्वेत पत्रों वाला है। इसमें नाम मात्र के लिए भी शब्द नहीं। यह सभ्याचरण नाद करता हुआ भी मौन है, व्याख्यान देता हुआ भी व्याख्यान के पीछे छिपा है, राग गाता हुआ भी राग के सुर के भीतर पड़ा है। मृदु वचनों की मिठास में आचरण की सभ्यता मौन रूप से खुली हुई है। नम्रता, दया, प्रेम और उदारता सबके सब सभ्याचरण की भाषा के मौन व्याख्यान हैं। मनुष्य के जीवन पर मौन व्याख्यान का प्रभाव चिरस्थायी होता है और उसकी आत्मा का एक अंग हो जाता है।

न काला, न नीला, न पीला, न सफ़ेद, न पूर्वी, न पश्चिमी न उत्तरी न दक्षिणी, बे नाम, बे निशान, बे मकान—विशाल आत्मा के आचरण से मौनरूपिणी, सुगंधि सदा प्रसारित हुआ करती है। इसके मौन से प्रसूत प्रेम और

पवित्रता-धर्म सारे जगत् का कल्याण करके विस्तृत होते हैं। इसकी उपस्थिति से मन और हृदय की ऋतु बदल जाते हैं। तीक्ष्ण गर्मी से जले भुने व्यक्ति आचरण के काले बादलों की बूँदाबूँदी से शीतल हो जाते हैं। मानसोत्पन्न शरदऋतु से क्लेशातुर हुए पुरुष इसकी सुगंधमय अटल वसंत ऋतु के आनंद का पान करते हैं। आचरण के नेत्र के एक अश्रु से जगत् भर के नेत्र भीग जाते हैं। आचरण के आनंद-नृत्य से उन्मदिष्णु होकर वृक्षों और पर्वतों तक के हृदय नृत्य करने लगते हैं। आचरण के मौन व्याख्यान से मनुष्य को एक नया जीवन प्राप्त होता है।

SubQuestion No : 17

Q.17 आचरण के मौन व्याख्यान से मनुष्य को क्या प्राप्त होता है ?

- Ans
- ☒ 1. धन और संपत्ति
 - ☒ 2. नया जीवन
 - ☒ 3. पद और प्रतिष्ठा
 - ☒ 4. शक्ति और सामर्थ्य

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

चित्र-कला का मौन राग अलापने लग जाता है; वक्ता चुप हो जाता है; लेखक की लेखनी थम जाती है; मूर्ति बनाने वाले के सामने नए कपोल, नए नयन और नई छवि का दृश्य उपस्थित हो जाता है।

आचरण की सभ्यतामय भाषा सदा मौन रहती है। इस भाषा का निघंटु शुद्ध श्वेत पत्रों वाला है। इसमें नाम मात्र के लिए भी शब्द नहीं। यह सभ्याचरण नाद करता हुआ भी मौन है, व्याख्यान देता हुआ भी व्याख्यान के पीछे छिपा है, राग गाता हुआ भी राग के सुर के भीतर पड़ा है। मृदु वचनों की मिठास में आचरण की सभ्यता मौन रूप से खुली हुई है। नम्रता, दया, प्रेम और उदारता सबके सब सभ्याचरण की भाषा के मौन व्याख्यान हैं। मनुष्य के जीवन पर मौन व्याख्यान का प्रभाव चिरस्थायी होता है और उसकी आत्मा का एक अंग हो जाता है।

न काला, न नीला, न पीला, न सफ़ेद, न पूर्वी, न पश्चिमी न उत्तरी न दक्षिणी, बे नाम, बे निशान, बे मकान—विशाल आत्मा के आचरण से मौनरूपिणी, सुगंधि सदा प्रसारित हुआ करती है। इसके मौन से प्रसूत प्रेम और

पवित्रता-धर्म सारे जगत् का कल्याण करके विस्तृत होते हैं। इसकी उपस्थिति से मन और हृदय की ऋतु बदल जाते हैं। तीक्ष्ण गर्मी से जले भुने व्यक्ति आचरण के काले बादलों की बूँदाबूँदी से शीतल हो जाते हैं। मानसोत्पन्न शरदऋतु से क्लेशातुर हुए पुरुष इसकी सुगंधमय अटल वसंत ऋतु के आनंद का पान करते हैं। आचरण के नेत्र के एक अश्रु से जगत् भर के नेत्र भीग जाते हैं। आचरण के आनंद-नृत्य से उन्मदिष्णु होकर वृक्षों और पर्वतों तक के हृदय नृत्य करने लगते हैं। आचरण के मौन व्याख्यान से मनुष्य को एक नया जीवन प्राप्त होता है।

SubQuestion No : 18

Q.18 आचरण की सभ्यता से किसकी ऋतु बदल जाती है?

- Ans
- ☒ 1. समाज की
 - ☒ 2. देश की
 - ☒ 3. शरीर की
 - ☒ 4. मन और हृदय की

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

चित्र-कला का मौन राग अलापने लग जाता है; वक्ता चुप हो जाता है; लेखक की लेखनी थम जाती है; मूर्ति बनाने वाले के सामने नए कपोल, नए नयन और नई छवि का दृश्य उपस्थित हो जाता है।

आचरण की सभ्यतामय भाषा सदा मौन रहती है। इस भाषा का निघंटु शुद्ध श्वेत पत्रों वाला है। इसमें नाम मात्र के लिए भी शब्द नहीं। यह सभ्याचरण नाद करता हुआ भी मौन है, व्याख्यान देता हुआ भी व्याख्यान के पीछे छिपा है, राग गाता हुआ भी राग के सुर के भीतर पड़ा है। मृदु वचनों की मिठास में आचरण की सभ्यता मौन रूप से खुली हुई है। नम्रता, दया, प्रेम और उदारता सबके सब सभ्याचरण की भाषा के मौन व्याख्यान हैं। मनुष्य के जीवन पर मौन व्याख्यान का प्रभाव चिरस्थायी होता है और उसकी आत्मा का एक अंग हो जाता है।

न काला, न नीला, न पीला, न सफ़ेद, न पूर्वी, न पश्चिमी न उत्तरी न दक्षिणी, बे नाम, बे निशान, बे मकान—विशाल आत्मा के आचरण से मौनरूपिणी, सुगंधि सदा प्रसारित हुआ करती है। इसके मौन से प्रसूत प्रेम और

पवित्रता-धर्म सारे जगत् का कल्याण करके विस्तृत होते हैं। इसकी उपस्थिति से मन और हृदय की ऋतु बदल जाते हैं। तीक्ष्ण गर्मी से जले भुने व्यक्ति आचरण के काले बादलों की बूँदाबूँदी से शीतल हो जाते हैं। मानसोत्पन्न शरदऋतु से क्लेशातुर हुए पुरुष इसकी सुगंधमय अटल वसंत ऋतु के आनंद का पान करते हैं। आचरण के नेत्र के एक अश्रु से जगत् भर के नेत्र भीग जाते हैं। आचरण के आनंद-नृत्य से उन्मदिष्णु होकर वृक्षों और पर्वतों तक के हृदय नृत्य करने लगते हैं। आचरण के मौन व्याख्यान से मनुष्य को एक नया जीवन प्राप्त होता है।

SubQuestion No : 19

Q.19 कपोल शब्द का समानार्थी शब्द क्या है?

- Ans
- ☒ 1. गाल
 - ☒ 2. कान
 - ☒ 3. आँख
 - ☒ 4. नाक

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

चित्र-कला का मौन राग अलापने लग जाता है; वक्ता चुप हो जाता है; लेखक की लेखनी थम जाती है; मूर्ति बनाने वाले के सामने नए कपोल, नए नयन और नई छवि का दृश्य उपस्थित हो जाता है।

आचरण की सभ्यतामय भाषा सदा मौन रहती है। इस भाषा का निघंटु शुद्ध श्वेत पत्रों वाला है। इसमें नाम मात्र के लिए भी शब्द नहीं। यह सभ्याचरण नाद करता हुआ भी मौन है, व्याख्यान देता हुआ भी व्याख्यान के पीछे छिपा है, राग गाता हुआ भी राग के सुर के भीतर पड़ा है। मृदु वचनों की मिठास में आचरण की सभ्यता मौन रूप से खुली हुई है। नम्रता, दया, प्रेम और उदारता सबके सब सभ्याचरण की भाषा के मौन व्याख्यान हैं। मनुष्य के जीवन पर मौन व्याख्यान का प्रभाव चिरस्थायी होता है और उसकी आत्मा का एक अंग हो जाता है।

न काला, न नीला, न पीला, न सफ़ेद, न पूर्वी, न पश्चिमी न उत्तरी न दक्षिणी, बे नाम, बे निशान, बे मकान—विशाल आत्मा के आचरण से मौनरूपिणी, सुगंधि सदा प्रसारित हुआ करती है। इसके मौन से प्रसूत प्रेम और

पवित्रता-धर्म सारे जगत् का कल्याण करके विस्तृत होते हैं। इसकी उपस्थिति से मन और हृदय की ऋतु बदल जाते हैं। तीक्ष्ण गर्मी से जले भुने व्यक्ति आचरण के काले बादलों की बूँदाबूँदी से शीतल हो जाते हैं। मानसोत्पन्न शरदऋतु से क्लेशातुर हुए पुरुष इसकी सुगंधमय अटल वसंत ऋतु के आनंद का पान करते हैं। आचरण के नेत्र के एक अश्रु से जगत् भर के नेत्र भीग जाते हैं। आचरण के आनंद-नृत्य से उन्मदिष्णु होकर वृक्षों और पर्वतों तक के हृदय नृत्य करने लगते हैं। आचरण के मौन व्याख्यान से मनुष्य को एक नया जीवन प्राप्त होता है।

SubQuestion No : 20

Q.20 उष्ण का विलोम शब्द उपरोक्त गद्यांश में से चुनिए -

- Ans
- ☒ 1. मंद
 - ☒ 2. मंथर
 - ☒ 3. शीतल
 - ☒ 4. तीक्ष्ण

Section : Discipline1

Q.1 In a message queue, how are messages stored?

- Ans
- ☒ 1. In a queue structure
 - ☒ 2. In a stack structure
 - ☒ 3. In a linked list
 - ☒ 4. In a circular buffer

Q.2 Which of the following SQL statements will retrieve the lowest value from a column named 'Price' in a table named 'Products'?

- Ans
- ☒ 1. SELECT TOP 1 Price FROM Products ORDER BY Price ASC;
 - ☒ 2. SELECT MIN(Price) FROM Products;
 - ☒ 3. SELECT LOWEST(Price) FROM Products;
 - ☒ 4. SELECT Price FROM Products WHERE Price = MIN(Price);

Q.3 What is the role of the 'resource-allocation graph' in deadlock avoidance?

- Ans
- ☒ 1. Detecting existing deadlocks
 - ☒ 2. Tracking CPU usage
 - ☒ 3. Scheduling I/O operations
 - ☒ 4. Representing the state of system resources and processes

Q.4 Which of the following is NOT a field in the UDP header?

- Ans
- ☒ 1. Source Port
 - ☒ 2. Length
 - ☒ 3. Checksum
 - ☒ 4. Sequence Number

Q.5 Select the correct SQL query that returns all students whose results are greater than the average result of their respective departments.

- Ans**
- ☐ 1. SELECT stu_id
FROM student s
WHERE result > (SELECT AVG(s.result) FROM student);
 - ☐ 2. SELECT stu_id
FROM student
WHERE result > (SELECT AVG(result) FROM student GROUP BY dept_id);
 - ☐ 3. SELECT stu_id
FROM student
WHERE result > AVG(result) GROUP BY dept_id;
 - ☒ 4. SELECT stu_id
FROM student s
WHERE result > (SELECT AVG(result) FROM student WHERE dept_id = s.dept_id);

Q.6 In order to grant a user named 'Deepak' the ability to read data from a table called 'Customers', which SQL statement should be used?

- Ans**
- ☐ 1. GRANT ACCESS ON Customers TO Deepak;
 - ☐ 2. GRANT READ ON Customers TO Deepak;
 - ☐ 3. GIVE SELECT ON Customers TO Deepak;
 - ☒ 4. GRANT SELECT ON Customers TO Deepak;

Q.7 How does TCP ensure a clean termination of both sides during a normal connection release?

- Ans**
- ☐ 1. By resending SYN packets
 - ☐ 2. By entering the LISTEN state after termination
 - ☐ 3. By encrypting all termination packets
 - ☒ 4. By sending FIN and ACK packets sequentially

Q.8 Which of the following is true about the page table?

- Ans**
- ☒ 1. The page table maps virtual addresses to physical addresses.
 - ☐ 2. The page table stores the instructions for memory management.
 - ☐ 3. The page table is used only in non-paging systems.
 - ☐ 4. The page table contains the data of each process.

Q.9 In FCFS scheduling, the average waiting time is affected most by:

- Ans**
- ☒ 1. the arrival order of processes
 - ☐ 2. preemption
 - ☐ 3. process priority
 - ☐ 4. CPU clock speed

Q.10 Which attribute determines who can read, write or execute a file?

- Ans**
- ☐ 1. File location
 - ☐ 2. File size
 - ☐ 3. File type
 - ☒ 4. File permissions

Q.11 Which firewall type acts as an intermediary for requests between a client and a server?

- Ans**
- ☐ 1. Circuit-level gateway
 - ☐ 2. Stateful
 - ☐ 3. Packet-filtering
 - ☒ 4. Proxy firewall

Q.12 What is the purpose of the COMMIT command in SQL?

- Ans**
- ☐ 1. To create a new table
 - ☐ 2. To assign privileges
 - ☐ 3. To rollback the changes
 - ☒ 4. To permanently save changes made in a transaction

Q.13 Which of the following scenarios indicates successful connection establishment in TCP?

- Ans**
- ☒ 1. SYN, SYN-ACK and ACK packets are exchanged
 - ☐ 2. Only the SYN-ACK is sent
 - ☐ 3. Only the SYN is sent and received
 - ☐ 4. Data packets are transmitted without SYN packets

Q.14 Which type of join returns all records from both tables, including non-matching rows, and fills in NULL for missing matches?

- Ans**
- ☐ 1. LEFT JOIN
 - ☐ 2. RIGHT JOIN
 - ☐ 3. INNER JOIN
 - ☒ 4. FULL JOIN

Q.15 In which logic gate, if any input is low, then the output will be high?

- Ans**
- ☒ 1. NAND Logic Gate
 - ☐ 2. NOR Logic gate
 - ☐ 3. AND Logic gate
 - ☐ 4. XNOR Logic Gate

Q.16 What critical information does a digital certificate contain?

- Ans**
- ☒ 1. Public key, owner information and certificate validity
 - ☐ 2. Private key of the user
 - ☐ 3. Encryption algorithms supported by the server
 - ☐ 4. Username and password of the certificate owner

Q.17 Which of the following protocols supports multiplexing in transport layer?

- Ans**
- ☐ 1. HTTP
 - ☐ 2. SMTP
 - ☒ 3. UDP
 - ☐ 4. FTP

Q.18 What does an ICMP Destination Unreachable message indicate?

- Ans**
- ☐ 1. The destination IP address is incorrect.
 - ☐ 2. The packet has reached its destination.
 - ☒ 3. The destination host or network is unreachable.
 - ☐ 4. The packet's checksum is invalid.

Q.19 In the context of paging, what does the term 'page table mapping' refer to?

- Ans**
- ☐ 1. The mapping of files to memory pages
 - ☐ 2. The process of swapping pages in and out of secondary storage
 - ☒ 3. The process of mapping logical addresses to physical addresses
 - ☐ 4. The mapping of physical memory to virtual memory

Q.20 What is the minimum number of inputs required for a XOR gate to output 1?

- Ans**
- ☐ 1. 3
 - ☐ 2. 1
 - ☐ 3. 4
 - ☒ 4. 2

Q.1 `#include <stdio.h>`
`int main() {`
`FILE *file = fopen("input.txt", "r");`
`int value;`
`fscanf(file, "%d", &value);`
`fseek(file, 0, SEEK_SET);`
`fscanf(file, "%d", &value);`
`fclose(file);`
`printf("%d\n", value);`
`return 0;`
`}`
What will be the output of the code if input.txt contains 42?

- Ans
- ☐ 1. Undefined behavior
 - ☐ 2. EOF
 - ☐ 3. It depends on the system
 - ☒ 4. 42

Q.2 What is the output of the following code?

```
#include <stdio.h>
void func(void);
int main() {
    func(10);
    return 0;
}
void func(void)
{
    printf("Function called\n");
}
```

- Ans
- ☐ 1. Prints 'Function called'
 - ☐ 2. Prints 'Function not called'
 - ☒ 3. Compilation error
 - ☐ 4. Compiles successfully but no output displayed

Q.3 What will be the output of the following Java code? `public class IfExample {`
`public static void main(String[] args) {`
`int number = 10;`
`if (number > 5) {`
`System.out.println("Number is greater than 5");`
`}`
`}`
`}`

- Ans
- ☒ 1. Number is greater than 5
 - ☐ 2. No output
 - ☐ 3. Number is less than 5
 - ☐ 4. Compilation error

Q.4 `class Person {`
`private String name;`

`public Person(String name) {`
`this.name = name;`
`}`

`private void displayName() {`
`System.out.println("Name: " + name);`
`}`
`}`

`public class Test {`
`public static void main(String[] args) {`
`Person p = new Person("John");`
`p.displayName();`
`}`
`}`

What will happen when the above code is compiled and executed?

- Ans
- ☐ 1. The code will compile and display Name: John.
 - ☐ 2. Compilation Error: The field name is not visible in Test.
 - ☐ 3. Runtime Error: The method displayName cannot be called.
 - ☒ 4. Compilation Error: The method displayName is not visible in Test.

Q.5 Convert the hexadecimal number (A5)₁₆ to its decimal equivalent.

- Ans**
- ☐ 1. 175
 - ☒ 2. 165
 - ☐ 3. 160
 - ☐ 4. 170

Q.6 In an if-else ladder, if a condition evaluates to true, what happens to the subsequent conditions?

- Ans**
- ☐ 1. Only the last condition of the ladder is evaluated
 - ☐ 2. All subsequent conditions are evaluated.
 - ☐ 3. Only the next condition is evaluated.
 - ☒ 4. None of the subsequent conditions are evaluated.

Q.7 Which of the following is a correct way to declare a char type variable x in C?

- Ans**
- ☐ 1. ch x;
 - ☐ 2. char = 'x';
 - ☐ 3. character x;
 - ☒ 4. char x;

Q.8 What will be the output of the following code?

```
#include <stdio.h>
int main()
{
char str[20] = "Hello, World!";
printf("%s\n", str + 7);
return 0;
}
```

- Ans**
- ☒ 1. World!
 - ☐ 2. Hello, World!
 - ☐ 3. , World!
 - ☐ 4. Compilation error

Q.9 Which method binding is associated with method overriding in Java?

- Ans**
- ☐ 1. Compile-time binding
 - ☒ 2. Dynamic binding
 - ☐ 3. Early binding
 - ☐ 4. Static binding

Q.10 If a, b are the inputs and y is the output of a two input AND logic gate, then which of the following is the correct expression for the output of the AND logic gate?

- Ans**
- ☒ 1. $y = a.b$
 - ☐ 2. $y = a'.b$
 - ☐ 3. $y = a.b'$
 - ☐ 4. $y = a'.b'$

Q.11 What will be the output of the following code?

```
#include<stdio.h>
int main() {
int x=5,y;
y=x++ + ++x;
printf("%d",y);
return 0;
}
```

- Ans**
- ☒ 1. 12
 - ☐ 2. compile time error
 - ☐ 3. 10
 - ☐ 4. 11

Q.12 A 2D array B[4][5] is stored in row-major order. The base address of the array is 5000, and each element occupies 2 bytes. What is the address of B[2][3]?

- Ans**
- ☐ 1. 5048
 - ☐ 2. 5039
 - ☐ 3. 5054
 - ☒ 4. 5026

Q.13 What does the += operator do in C?

- Ans**
- ☐ 1. Assigns the value of the right operand to the left operand.
 - ☐ 2. It is an invalid operator.
 - ☐ 3. It is used to concatenate two strings.
 - ☒ 4. Adds the right operand to the left operand and assigns the result to the left operand.

Q.14 Which of the following is the correct syntax of an if-else statement in C?

- Ans**
- ☐ 1. if [condition] then { statements } else { statements }
 - ☐ 2. if condition: statements else: statements
 - ☒ 3. if (condition) { statements } else { statements }
 - ☐ 4. if (condition) then { statements } else { statements }

Q.15 `int a = 4, b = 8, c = 6;`

```
if (a > b) {  
    if (a > c) {  
        System.out.println("a is the largest");  
    } else if (b > c) {  
        System.out.println("b is the largest");  
    } else {  
        System.out.println("c is the largest");  
    }  
} else {  
    if (b > c) {  
        System.out.println("b is the largest");  
    } else {  
        System.out.println("c is the largest");  
    }  
}
```

What is the output of the above code snippet(Assume that it is written inside main() function)?

- Ans**
- ☐ 1. a is the largest
 - ☐ 2. Compilation error
 - ☒ 3. b is the largest
 - ☐ 4. c is the largest

Q.16 What is the output of the following code?

```
#include <stdio.h>
int main() {
    for (int i = 1; i <= 3; i++) {
        for (int j = 1; j <= i; j++) {
            printf("***");
        }
        printf("\n");
    }
    return 0;
}
```

Ans  1. ***

*

 2. Compilation Error

 3. ***

 4. *

Q.17 What will be the output of the following code when the input is HelloWorld?

```
#include <stdio.h>
int main() {
    char str[5]; // Buffer for input
    int result = scanf("%4s", str);
    if (result == 1) {
        printf("Input: %s\n", str);
    } else {
        printf("Input error or no input.\n");
    }
    return 0;
}
```

Ans  1. Input: Hello

 2. Input: Hell

 3. Input: HelloWorld

 4. Input error or no input

Q.18 Consider the below Code snippet:

```
class Calculator {
    void calculate(int a, int b) {
        class Multiply {
            int product() {
                return a * b;
            }
        }

        Multiply multiply = new Multiply();
        System.out.println("Product: " + multiply.product());
    }
}
```

```
public class Main {
    public static void main(String[] args) {
        Calculator calculator = new Calculator();
        calculator.calculate(5, 3);
    }
}
```

What will be the output?

Ans  1. Product: 15

 2. Compilation Error: Multiply cannot be defined inside calculate.

 3. Runtime Error.

 4. Product: 0

Q.19 What will be the output of the following code?

```
#include <stdio.h>
int main() {
    if (5 > 10)
        printf("5 is greater than 10");
    else
        printf("5 is not greater than 10");
    return 0;
}
```

- Ans**
- ☐ 1. 5 is greater than 10
 - ☐ 2. No output
 - ☐ 3. Syntax error
 - ☒ 4. 5 is not greater than 10

Q.20 What will be the output of the following Java code? public class DoWhileExample {

```
public static void main(String[] args) {
    int x = 10;
    do {
        System.out.println("x = " + x);
        x++;
    } while (x < 13);
}
}
```

- Ans**
- ☐ 1. C) x = 10
 - ☐ 2. D) No output
 - ☐ 3. B) x = 10

x = 11

- ☒ 4. A) x = 10

x = 11

x = 12

Section : Discipline3

Q.1 Which of the following statements is true about JavaScript arrays?

- Ans**
- ☐ 1. JavaScript arrays are of fixed size.
 - ☐ 2. JavaScript arrays can store elements of only one data type.
 - ☒ 3. JavaScript arrays can store elements of multiple data types.
 - ☐ 4. JavaScript arrays cannot be modified once created.

Q.2 What will be the output of the following JavaScript code?

```
const email = "example@domain";
const regex = /^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,4}$/;
console.log(regex.test(email));
```

- Ans**
- ☐ 1. Error: Invalid regex
 - ☐ 2. TRUE
 - ☒ 3. FALSE
 - ☐ 4. undefined

Q.3 Consider the following pseudo code.

```
exponentiate(int x, int n)
{
  int m=n; power= 1; z= x;
  while(m>0)
  {
    while(m%2 ==0)
    { m= m/2; z= z*z ;
    }
    m=m-1; power = power*z;
  }
  return power;
}
```

What will the time complexity of function exponentiate() be?

- Ans**
- ☐ 1. $\Theta(n \log n)$
 - ☐ 2. $\Theta(n)$
 - ☐ 3. $\Theta(n^2)$
 - ☒ 4. $\Theta(\log n)$

Q.4 What is the primary purpose of multimedia authoring software?

- Ans**
- ☒ 1. To create interactive multimedia presentations
 - ☐ 2. To manage file security
 - ☐ 3. To play media files
 - ☐ 4. To organise files on a computer

Q.5 In the switch control statement of the C program, the control falls through all the cases unless the _____ statement is given or the end of the switch block is reached.

- Ans**
- ☒ 1. break
 - ☐ 2. for
 - ☐ 3. return
 - ☐ 4. continue

Q.6 In C, which of the following file opening modes allow both reading and appending data in a file?

- Ans**
- ☐ 1. "a"
 - ☐ 2. "w+"
 - ☒ 3. "a+"
 - ☐ 4. "r"

Q.7 Which method is used to submit a form using JavaScript?

- Ans**
- ☐ 1. form.post()
 - ☐ 2. form.submitForm()
 - ☐ 3. form.send()
 - ☒ 4. form.submit()

Q.8 Suppose the two dimensional array is declared as `int a[2][2] = {{1,2},{3,4}};` Then which of the following will not give the output 4?

- Ans**
- ☐ 1. `*(*arr + 1) + 1`
 - ☐ 2. `arr[1][1]`
 - ☐ 3. `*arr[1] + 1`
 - ☒ 4. `*(*arr + 1)`

Q.9 What will be the output of the following C program?

```
#include <stdio.h>
int main()
{
    int i = 1;
    do
    {
        printf("%d ", i);
        i++;
    } while (i <= 5);
    return 0;
}
```

- Ans**
- ☐ 1. 2 3 4 5 6
 - ☒ 2. 1 2 3 4 5
 - ☐ 3. 1 2 3 4 5 6
 - ☐ 4. Infinite Loop

Q.10 What device is primarily used to capture video in multimedia applications?

- Ans**
- ☒ 1. Webcam
 - ☐ 2. Joystick
 - ☐ 3. Mouse
 - ☐ 4. Keyboard

Q.11 A measure of amount of memory required to execute an algorithm is known as:

- Ans**
- ☐ 1. Time complexity of an algorithm
 - ☐ 2. Time efficiency of an algorithm
 - ☒ 3. Space complexity of an algorithm
 - ☐ 4. Accuracy of an algorithm

Q.12 Which of the following statements about the DOM (Document Object Model) in JavaScript is true regarding its interaction with HTML and JavaScript?

- Ans**
- ☐ 1. The DOM only allows reading the HTML document but does not permit any changes or updates.
 - ☐ 2. The DOM is a static representation of the page and does not update dynamically when changes occur in the document.
 - ☐ 3. The DOM can only interact with text-based HTML documents and cannot modify styles or events.
 - ☒ 4. The DOM allows JavaScript to directly modify the structure of the HTML document by manipulating its elements, attributes and content.

Q.13 What is the main purpose of client-side scripting in JavaScript?

- Ans**
- ☐ 1. To interact with the database directly
 - ☒ 2. To run code on the user's web browser
 - ☐ 3. To store data on the server
 - ☐ 4. To execute code on the server

Q.14 Which of the following is a correct way of declaring an array of 15 integer elements in C?

- Ans**
- ☐ 1. int array(15);
 - ☒ 2. int array[15];
 - ☐ 3. array int[15];
 - ☐ 4. array int(15);

Q.15 What happens if the condition in a while loop is false at the start?

- Ans**
- ☐ 1. The loop throws an error.
 - ☐ 2. The loop runs infinitely.
 - ☐ 3. The loop runs once and then terminates.
 - ☒ 4. The loop does not run at all.

Q.16 Consider the given memory representation of the singly linked list where start points to the address of first node of the linked list, which is memory location 0.

Memory representation of the singly linked list

Memory location	Item value	Pointer to the next element
0	A	4
1	E	2
2	B	NULL
3		
4	C	1

If a new node whose data value is X is inserted after the node whose data value is E in any free location available in the memory, then what will the memory representation be after inserting the new node?

Ans  1. Memory representation of the linked list after inserting node X

Memory location	Item value	Pointer to the next element
0	A	4
1	E	2
2	B	3
3	X	NULL
4	C	1

 2. Memory representation of the linked list after inserting node X

Memory location	Item value	Pointer to the next element
0	A	3
1	E	2
2	B	NULL
3	X	4
4	C	1

 3. Memory representation of the linked list after inserting node X

Memory location	Item value	Pointer to the next element
0	A	4
1	E	2
2	B	NULL
3	X	1
4	C	3

 4.

Memory representation of the linked list after inserting node X

Memory location	Item value	Pointer to the next element
0	A	4
1	E	3
2	B	NULL
3	X	2
4	C	1

Q.17 Consider the expression given below in C.

$x ? y : a ? b : c$

What will be the value of the given expression if **$x = 0$** and **$a = 0$** ?

Ans  1. **0**

 2. Equivalent to the value of **y**.

 3. Equivalent to the value of **b**.

 4. Equivalent to the value of **c**.

Q.18 Which of the following is the correct way to define a function in Java?

- Ans
- ☐ 1. def myFunction() {}
 - ☒ 2. public void myFunction() {}
 - ☐ 3. function myFunction() {}
 - ☐ 4. Public myFunction() {}

Q.19 What is the main purpose of a multimedia communication system?

- Ans
- ☐ 1. To create 3D graphics
 - ☐ 2. To edit multimedia content
 - ☐ 3. To store files
 - ☒ 4. To facilitate the transmission of audio, video, and data

Q.20 Which of the following options is INCORRECT about randomised algorithms?

- Ans
- ☐ 1. Randomised algorithms that always produce the same(correct)output for the same input is known as Las Vegas Algorithms.
 - ☒ 2. The execution time of Las Vegas Algorithm does not depend on the output of the randomiser.
 - ☐ 3. Randomised algorithms whose output differs from run to run for the same inputs is known as Monte Carlo Algorithms.
 - ☐ 4. A randomised algorithm is an algorithm in which some of the decisions made in the algorithm depend on the output of the randomiser.

Section : **Discipline4**

Q.1 What does the if statement do?

- Ans
- ☐ 1. Holds address of a variable
 - ☐ 2. Assigns value to a variable
 - ☐ 3. Iterates through a block of code multiple times until its condition is true
 - ☒ 4. Is used to make decisions based on its condition

Q.2 What happens to the stack pointer (SP) when the CALL instruction is executed?

- Ans
- ☐ 1. It remains unchanged.
 - ☐ 2. It increases by 2 (or 4 in 32-bit systems)
 - ☐ 3. It points to the next instruction in the subroutine.
 - ☒ 4. It decreases by 2 (or 4 in 32-bit systems)

Q.3 Cellular phones and televisions use the _____ regions of the electromagnetic spectrum for signal transmission.

- Ans
- ☐ 1. infrared and visible light
 - ☐ 2. ultraviolet and visible light
 - ☐ 3. gamma rays and X-rays
 - ☒ 4. radio waves and microwaves

Q.4 If $A = \begin{bmatrix} 1 & 4 \\ 3 & 5 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 2 \\ 2 & 1 \end{bmatrix}$, then the matrix for $2A - 3B$ is _____.

- Ans
- ☐ 1. $\begin{bmatrix} 7 & 2 \\ 2 & 7 \end{bmatrix}$
 - ☒ 2. $\begin{bmatrix} -7 & 2 \\ 0 & 7 \end{bmatrix}$
 - ☐ 3. $\begin{bmatrix} 7 & 2 \\ 0 & 7 \end{bmatrix}$
 - ☐ 4. $\begin{bmatrix} -7 & 2 \\ 2 & 7 \end{bmatrix}$

Q.5 Which of the following is a type of ROM that allows data to be written and erased electrically?

- Ans**
- ☐ 1. Mask ROM
 - ☐ 2. Flash Memory
 - ☐ 3. EPROM
 - ☒ 4. EEPROM

Q.6 MK Ltd. has a policy of creating provisions for doubtful debts @ 5% on debtors. The balance of provision for doubtful debts on 1 April 2023 and 31 March 2024 is ₹2,50,000 and ₹3,00,000, respectively. If the amount collected from debtors is ₹75,00,000, calculate the credit sales during the year 2023-2024.

- Ans**
- ☐ 1. ₹75,50,000
 - ☐ 2. ₹69,50,000
 - ☒ 3. ₹85,00,000
 - ☐ 4. ₹55,00,000

Q.7 Which of the following is INCORRECT about singly linked list data structure?

- Ans**
- ☐ 1. It is a linear data structure.
 - ☐ 2. The list's head node is the first node, while the last node pointer field points to NULL to denote the list's end.
 - ☒ 3. The elements of the linked list are randomly accessible.
 - ☐ 4. The elements of the linked list are sequentially accessible.

Q.8 What indicates that an EPROM chip has been erased?

- Ans**
- ☐ 1. All bits are set to 0
 - ☐ 2. A specific flag is raised
 - ☒ 3. All bits are set to 1
 - ☐ 4. The chip stops functioning

Q.9 Process of Bank Reconciliation involves which of the following?

- i. Identify the entries which are in the bank statement and do require changes in the cash book.
- ii. List out entries in the cash book not reflected in the bank statement to arrive at the adjusted Bank Balance.
- iii. Find out clerical mistakes, if any committed in the cash book.

- Ans**
- ☐ 1. Only (i) and (ii)
 - ☐ 2. Only (ii) and (iii)
 - ☒ 3. All (i), (ii) and (iii)
 - ☐ 4. Only (i) and (iii)

Q.10 Which document outlines the detailed description of a new business, including its goals, target market, and financial projections?

- Ans**
- ☐ 1. Certificate of Incorporation
 - ☐ 2. Articles of Association
 - ☐ 3. Memorandum of Association
 - ☒ 4. Business Plan

Q.11 Which of the following statements about do-while loop in C program is/are correct?

P: In do-while loop, first the condition is evaluated and then the statements are executed.

Q: In do-while loop, firstly the statements inside loop body are executed and then the condition is evaluated.

R: The body of the do-while loop cannot contain a block of statements.

- Ans**
- ☒ 1. Only Q
 - ☐ 2. Only Q and R
 - ☐ 3. P, Q and R
 - ☐ 4. Only P

Q.12 How does an output unit interface with the CPU?

- Ans
- ☒ 1. By converting binary data into human-readable form
 - ☐ 2. By fetching instructions from memory
 - ☐ 3. By storing temporary data
 - ☐ 4. By executing programs

Q.13

The product of the matrices $\begin{bmatrix} 1 & 1 & 2 \\ 1 & 2 & 2 \\ 2 & 3 & 3 \end{bmatrix}$ and $\begin{bmatrix} 1 & 2 & 1 \\ -1 & 0 & 3 \\ 2 & 3 & 1 \end{bmatrix}$ is _____.

Ans

- ☐ 1. $\begin{bmatrix} 4 & 8 & 6 \\ 3 & 8 & 9 \\ 5 & 13 & 11 \end{bmatrix}$
- ☐ 2. $\begin{bmatrix} 6 & 8 & 4 \\ 3 & 8 & 9 \\ 11 & 13 & 14 \end{bmatrix}$
- ☒ 3. $\begin{bmatrix} 4 & 8 & 6 \\ 3 & 8 & 9 \\ 5 & 13 & 14 \end{bmatrix}$
- ☐ 4. $\begin{bmatrix} 6 & 8 & 4 \\ 3 & 8 & 9 \\ 5 & 13 & 14 \end{bmatrix}$

Q.14 Which of the following options is true for a Hermitian matrix?

- Ans
- ☐ 1. $a_{ij} = -a_{ji}$
 - ☐ 2. $a_{ij} = a_{ji}$
 - ☐ 3. $a_{ij} = -a_{ji}^*$
 - ☒ 4. $a_{ij} = a_{ji}^*$

Q.15 Which of following accounting concept states that every accounting transaction has two aspects?

- Ans
- ☒ 1. Dual aspect concept
 - ☐ 2. Conservatism concept
 - ☐ 3. Matching concept
 - ☐ 4. Realization concept

Q.16 If a particle moves with simple harmonic motion of period 16 seconds and travels 10 cm from the position of rest in 4 seconds, then the amplitude is _____.

- Ans
- ☐ 1. 8
 - ☒ 2. 10
 - ☐ 3. 12
 - ☐ 4. 24

Q.17 The control statement in C program that allows us to make a decision from multiple number of choices simultaneously is called _____.

- Ans
- ☐ 1. goto
 - ☐ 2. while
 - ☒ 3. switch
 - ☐ 4. for

Q.18 Calculate the worst-case time complexity of searching for an element in a singly linked list with 'n' elements.

- Ans**
- ☒ 1. $O(n)$
 - ☐ 2. $O(\log 1)$
 - ☐ 3. $O(1)$
 - ☐ 4. $O(1 \log)$

Q.19 High-energy electrons are bombarded on a metal target to produce _____ in the electromagnetic spectrum, with wavelengths in the range of _____.

- Ans**
- ☒ 1. X-rays ; 1 nm to 10^{-3} nm
 - ☐ 2. X-rays ; 400 nm to 1 nm
 - ☐ 3. UV light ; 400 nm to 1 nm
 - ☐ 4. radio waves ; > 0.1 m

Q.20 The particular integral of the differential equation $\frac{d^2y}{dx^2} + 2\frac{dy}{dx} + y = x^2 + 2x$ is _____.

- Ans**
- ☐ 1. $x^2 + 2x - 2$
 - ☐ 2. $x^2 - 2x - 2$
 - ☐ 3. $x^2 + 2x + 2$
 - ☒ 4. $x^2 - 2x + 2$

Section : **Discipline5**

Q.1 Which of the following is used to store the data and instructions during execution of the instructions?

- Ans**
- ☐ 1. Arithmetic and Logic Unit
 - ☒ 2. Memory Unit
 - ☐ 3. Control Unit
 - ☐ 4. Hard Disk Drive

Q.2 Which of the following is an example of real-time communication through an online chat application?

- Ans**
- ☐ 1. Posting on a blog
 - ☒ 2. Exchanging messages in a live chat
 - ☐ 3. Sending an email
 - ☐ 4. Writing a comment on a social media post

Q.3 Which system software is responsible for determining and managing the execution order of programs in a computer system?

- Ans**
- ☐ 1. Utility programs
 - ☒ 2. Operating system
 - ☐ 3. Device driver
 - ☐ 4. Linker

Q.4 Which protocol enables presence detection, contact management, and real-time messaging in instant messaging applications?

- Ans**
- ☒ 1. XMPP (Extensible Messaging and Presence Protocol)
 - ☐ 2. IMAP (Internet Message Access Protocol)
 - ☐ 3. SIP (Session Initiation Protocol)
 - ☐ 4. IRC (Internet Relay Chat)

Q.5 Before posting a comment on a public forum, you should:

- Ans**
- ☐ 1. share misleading information to get attention
 - ☒ 2. ensure your comment is respectful and relevant
 - ☐ 3. add personal attacks to make your point
 - ☐ 4. ignore the thread rules

Q.6 What does a high Debt-to-Equity ratio typically indicate about a business?

- Ans**
- ☐ 1. Low profitability
 - ☐ 2. Efficient asset management
 - ☐ 3. Strong liquidity position
 - ☒ 4. Higher financial risk due to excessive borrowing

Q.7 If $p(x) = \begin{cases} \frac{x}{10} & \text{for } x = 1, 2, 3, 4 \\ 0 & \text{otherwise} \end{cases}$ then for $A = (2, 3)$, $P(A)$ is equal to :

- Ans**
- ☐ 1. $\frac{1}{3}$
 - ☐ 2. 0
 - ☒ 3. $\frac{1}{2}$
 - ☐ 4. $\frac{1}{5}$

Q.8 Which of the following is NOT affected by extreme observations?

- Ans**
- ☐ 1. Range
 - ☐ 2. Mean
 - ☒ 3. Median
 - ☐ 4. Harmonic Mean

Q.9 In business evaluation, the concept of 'Economic Value Added (EVA)' measures:

- Ans**
- ☐ 1. the net book value of assets
 - ☐ 2. the company's gross profit
 - ☒ 3. the financial performance in terms of value creation above the cost of capital
 - ☐ 4. the company's revenue growth rate

Q.10 Which of the following is NOT a part of the internal architecture of the Central Processing Unit (CPU)?

- Ans**
- ☐ 1. Register
 - ☒ 2. Random Access Memory
 - ☐ 3. Arithmetic Logic Unit
 - ☐ 4. Control Unit

Section : Teaching Methodology

Q.1 Teachers can use pedagogical analysis of a subject to _____.

- Ans**
- ☐ 1. only concentrate on the exercises in the textbook
 - ☐ 2. forecast students' behaviour exclusively
 - ☒ 3. deconstruct the material into learning objectives, activities and assessment
 - ☐ 4. just make lesson notes

Q.2 A teacher notices that a student consistently underperforms on tasks requiring spatial reasoning. The teacher designs specific tasks to diagnose the cause of this difficulty. What type of assessment is this?

- Ans**
- ☐ 1. Formative assessment
 - ☐ 2. Norm-referenced assessment
 - ☐ 3. Summative assessment
 - ☒ 4. Diagnostic assessment

Q.3 Which of the following is the least considered factor while selecting learning resources?

- Ans**
- ☐ 1. Resource cost and accessibility
 - ☐ 2. Cultural relevance and inclusivity
 - ☒ 3. Popularity of the resource on social media
 - ☐ 4. Alignment with learning outcomes

Q.4 Art education primarily nurtures which of the following?

- Ans**
- ☐ 1. Mechanical accuracy
 - ☐ 2. Competitive attitude
 - ☒ 3. Emotional expression
 - ☐ 4. Logical sequencing

Q.5 In the process of gender socialisation, which two main dimensions are transmitted?

- Ans**
- ☐ 1. Love and hate
 - ☐ 2. Equality and diversity
 - ☒ 3. Difference and hierarchy
 - ☐ 4. Intelligence and behaviour

Q.6 Which of the following best differentiates 'growth' from 'development'?

- Ans**
- ☒ 1. Growth is value-neutral, development is value-positive.
 - ☐ 2. Growth is qualitative, development is quantitative.
 - ☐ 3. Growth continues forever, development stops after a certain age.
 - ☐ 4. Growth is only physical, development is only emotional.

Q.7 A 'technique' in teaching refers to _____.

- Ans**
- ☒ 1. specific activity, e.g., mnemonic tool
 - ☐ 2. the final assessment tool used in exams
 - ☐ 3. curriculum design
 - ☐ 4. long-term educational philosophy

Q.8 Identify the method which is NOT recognised as a scientific approach of acquiring knowledge.

- Ans**
- ☐ 1. Sensorial
 - ☐ 2. Action
 - ☒ 3. Reading fiction
 - ☐ 4. Rationalisation

Q.9 Which of the following professionals typically diagnoses learning disabilities?

- Ans**
- ☐ 1. Ophthalmologist
 - ☐ 2. Librarian
 - ☐ 3. Physical education teacher
 - ☒ 4. Special educator

Q.10 Active use of language across subjects enhances _____.

- Ans**
- ☐ 1. physical fitness
 - ☒ 2. oral and auditory comprehension in context
 - ☐ 3. exclusive scores of Mathematics
 - ☐ 4. silent reading only

DSSSB Exam September 2025

Test Date	13/09/2025
Test Time	5:00 PM - 7:00 PM
Subject	TGT Computer Science

Section : General intelligence and Reasoning Ability

Q.1 Rajeev starts from Point A and drives 8 km towards the north. He then takes a left turn, drives 9 km, turns left and drives 10 km. He then takes a left turn and drives 11 km. He takes a final left turn, drives 2 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only, unless specified.)

- Ans
- ☒ 1. 4 km to the north
 - ☒ 2. 2 km to the west
 - ☒ 3. 2 km to the south
 - ☒ 4. 3 km to the east

Q.2 If 'A' stands for '+', 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-', then what will come in place of the question mark (?) in the following equation?

$$32 \text{ B } 4 \text{ C } 130 \text{ A } 26 \text{ D } 11 = ?$$

- Ans
- ☒ 1. 122
 - ☒ 2. 120
 - ☒ 3. 129
 - ☒ 4. 116

Q.3 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

GAI21, SMU43, EYG65, QKS87, ?

- Ans
- ☒ 1. WWE109
 - ☒ 2. CWE108
 - ☒ 3. CWE109
 - ☒ 4. CWP109

Q.4 If 'A' stands for '+', 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-', then what will come in place of the question mark (?) in the following equation?

$$21 \text{ B } 44 \text{ A } 14 \text{ C } 48 \text{ D } 17 = ?$$

- Ans
- ☒ 1. 98
 - ☒ 2. 97
 - ☒ 3. 95
 - ☒ 4. 99

Q.5 This question is based on the five, three-digit numbers given below.

(Left) 471 496 587 513 433 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)
(NOTE: All operations to be done from left to right.)

What will be the resultant if the third digit of the highest number is added to the third digit of the lowest number?

- Ans
- ☒ 1. 9
 - ☒ 2. 7
 - ☒ 3. 6
 - ☒ 4. 10

Q.6 This question is based on the five, three-digit numbers given below.

(Left) 471 483 589 679 189 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)

(NOTE: All operations to be done from left to right.)

What will be the resultant if the second digit of the highest number is added to the third digit of the lowest number?

- Ans**
- ☐ 1. 12
 - ☒ 2. 16
 - ☐ 3. 11
 - ☐ 4. 14

Q.7 Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only six people have exams before Q. Only four people have exams between T and S. V has the exam on Wednesday. P has the exam immediately after R but before T. How many people have exams between U and R?

- Ans**
- ☐ 1. Four
 - ☐ 2. Three
 - ☐ 3. Two
 - ☒ 4. One

Q.8 DLMN is related to HPQR in a certain way based on the English alphabetical order. In the same way, CPRV is related to GTVZ. To which of the given options is KQTI related, following the same logic?

- Ans**
- ☐ 1. NTWL
 - ☐ 2. JPSH
 - ☐ 3. PVYN
 - ☒ 4. OUXM

Q.9 Seven boxes, E, F, G, H, P, Q and R, are kept one over the other but not necessarily in the same order. Only two boxes are kept below F. Only one box is kept above P. Only one box is kept between P and Q. H is kept immediately above E. R is kept at some place below G. How many boxes are kept below R?

- Ans**
- ☐ 1. Two
 - ☐ 2. One
 - ☐ 3. Three
 - ☒ 4. Four

Q.10 D is the brother of E. F is the father of G. H is the daughter of G. E is the mother of H. How is D related to F?

- Ans**
- ☐ 1. Wife's brother
 - ☐ 2. Father
 - ☒ 3. Son's wife's brother
 - ☐ 4. Son's wife's father

Q.11 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☐ 1. SWYE
 - ☒ 2. KOPW
 - ☐ 3. VZBH
 - ☐ 4. AEGM

Q.12 What should come in place of the question mark (?) in the given series?

903 908 913 918 ?

- Ans**
- ☒ 1. 922
 - ☒ 2. 923
 - ☒ 3. 924
 - ☒ 4. 921

Q.13 Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding to/subtracting from/multiplying with 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(11, 6, 66)
(15, 8, 120)

- Ans**
- ☒ 1. (25, 6, 175)
 - ☒ 2. (21, 9, 189)
 - ☒ 3. (18, 9, 172)
 - ☒ 4. (23, 11, 263)

Q.14 A, B, C, D, E, F and G are sitting around a circular table, facing the centre. D sits second to the left of E. B sits fourth to the right of A. A is not an immediate neighbour of E. F sits to the immediate left of G and is not an immediate neighbour of B. How many people sit between A and E when counted from the left of A?

- Ans**
- ☒ 1. 3
 - ☒ 2. 2
 - ☒ 3. 1
 - ☒ 4. 4

Q.15 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☒ 1. CK – IQ
 - ☒ 2. EM – JR
 - ☒ 3. GO – MU
 - ☒ 4. KS – QY

Q.16 In this question, a statement is given followed by two courses of action, numbered I and II. You must assume everything in the statement to be true, and on the basis of the information given in the statement, decide which of the given courses of action logically follow(s) for pursuing.

Statement:

A significant rise in respiratory illnesses has been observed in City Y over the past three years, primarily due to the increasing levels of air pollution caused by industrial emissions.

Courses of actions:

I. The city administration should promote the use of public transportation and carpooling.

II. Strict emission norms should be enforced on the nearby industries with immediate effect.

- Ans**
- ☒ 1. Only II follows
 - ☒ 2. Neither I nor II follows
 - ☒ 3. Both I and II follow
 - ☒ 4. Only I follows

Q.17 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(Note: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

12 - 60

3 - 15

- Ans
- ☐ 1. 14 - 48
 - ☐ 2. 4 - 16
 - ☒ 3. 11 - 55
 - ☐ 4. 5 - 89

Q.18 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

JGH, FIE, BKB, XMY, TOV, ?

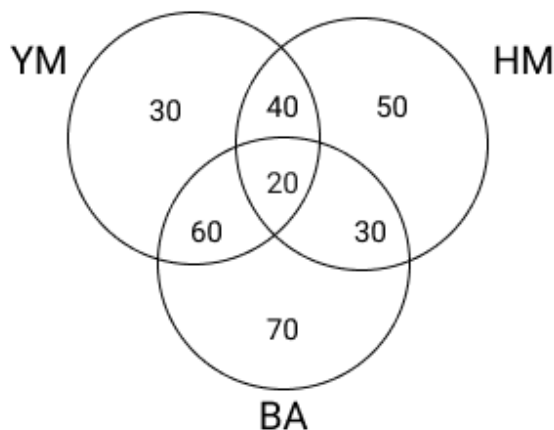
- Ans
- ☐ 1. MQT
 - ☐ 2. NPS
 - ☒ 3. PQS
 - ☐ 4. NRT

Q.19 In a certain code language, 'TYRE' is coded as '3846' and 'TERM' is coded as '2386'. What is the code for 'M' in the given code language?

- Ans
- ☐ 1. 3
 - ☐ 2. 6
 - ☐ 3. 8
 - ☒ 4. 2

Q.20 Study the given diagram carefully and answer the question that follows.

The following diagram shows different sections that indicate the number of persons who owns that particular brand of motorcycles.



How many persons own all the three brands of motorcycles?
(NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)

- Ans
- ☐ 1. 60
 - ☒ 2. 20
 - ☐ 3. 70
 - ☐ 4. 40

Q.1	As of 30 October 2024, who holds the position of Deputy Secretary-General of the United Nations and Chair of the United Nations Sustainable Development Group?
Ans	✗ 1. Ngozi Okonjo-Iweala ✗ 2. Kristalina Georgieva ✓ 3. Amina J Mohammed ✗ 4. Audrey Azoulay
Q.2	As per Article 74 of the Indian Constitution, who among the following is the Head of the Council of Ministers of the Union Government?
Ans	✓ 1. Prime Minister of India ✗ 2. Attorney General of India ✗ 3. Chief Justice of India ✗ 4. President of India
Q.3	Transportation of food material from one part to another part of plants takes place by _____.
Ans	✗ 1. xylem tissues ✗ 2. roots ✓ 3. phloem tissues ✗ 4. parenchyma
Q.4	Which of the following books is written by Sid Kapdi?
Ans	✗ 1. The Hazelwood ✓ 2. Scare Me If You Can ✗ 3. The Turn of the Screw ✗ 4. Dark Tales
Q.5	How do Microfinance Institutions (MFIs) contribute to financial inclusion in India?
Ans	✗ 1. MFIs restricting their operations to the agricultural sector ✓ 2. Providing small-scale loans and other financial services to underserved segments of the population ✗ 3. Focussing solely on urban populations for credit delivery ✗ 4. Offering large-scale industrial and corporate financing
Q.6	The Planning Commission of India divided India into how many of the following agro-climatic regions in 1989?
Ans	✗ 1. 12 major regions ✓ 2. 15 major regions ✗ 3. 9 major regions ✗ 4. 14 major regions
Q.7	Money supplied by commercial banks is referred to as:
Ans	✗ 1. deposit money ✗ 2. cash reserves ✗ 3. high-powered money ✓ 4. credit money
Q.8	In which of the following states is the ‘Patkai Bum’ hills located?
Ans	✗ 1. Mizoram ✗ 2. Tripura ✗ 3. Sikkim ✓ 4. Nagaland
Q.9	When did Vallabhbhai Patel spearhead the farmers' protest against the rise in land revenue in Bardoli, a taluka in Gujarat?
Ans	✗ 1. 1924 ✓ 2. 1928 ✗ 3. 1921 ✗ 4. 1932

Q.10 Hemis National Park is located in which of the following Union Territories?

Ans  1. Ladakh
 2. Daman and Diu
 3. Jammu and Kashmir
 4. Puducherry

Q.11 Which of the following teams was the winner of the 56th National Kho Kho Women's Championship, 2023-24?

Ans  1. Maharashtra
 2. Haryana
 3. Railways
 4. Tripura

Q.12 Which of the following Articles of the Indian Constitution empowers the Parliament to make laws regarding the acquisition and termination of Indian citizenship?

Ans  1. Article 9
 2. Article 5
 3. Article 11
 4. Article 15

Q.13 Which of the following significant non-violent movements against British rule in India was started by Abdul Ghaffar Khan in 1929?

Ans  1. Khudai Khidmatgar Movement
 2. Wahabi Movement
 3. Deoband Movement
 4. Ahmadiyya Movement

Q.14 A measure of a solid's stiffness or resistance to elastic deformation under load is called:

Ans  1. Bulk Modulus
 2. Shear Modulus
 3. Young's Modulus
 4. Secant Modulus

Q.15 What are the two modes of reproduction common to all living organisms?

Ans  1. Regeneration and multiplication
 2. Pollination and propagation
 3. Seed dispersal and fertilisation
 4. Sexual and asexual

Q.16 Which of the following atoms contains only one electron?

Ans  1. Carbon
 2. Oxygen
 3. Nitrogen
 4. Hydrogen

Q.17 According to the Constitution (Sixty-first Amendment) Act, 1989, who is eligible to vote in Lok Sabha elections?

Ans  1. Any Indian citizen above 21 years of age
 2. Any Indian citizen above 30 years of age
 3. Any Indian citizen above 18 years of age
 4. Any Indian citizen above 25 years of age

Q.18 Which of the following is an INCORRECT statement about Buddhist architecture?

Ans  1. Chaityas are worship places of Buddhists.
 2. Chaitya has small living quarters for dwelling of monks.
 3. Chaitya is a large apse-shaped pillared hall.
 4. The entrance of chaitya consists of a veranda.

Q.19 Which of the following statements regarding India's first long-range hypersonic missile trial are correct?

1. The missile was successfully tested from Dr. APJ Abdul Kalam Island off the coast of Odisha.
2. The missile was designed to carry payloads for ranges greater than 1,500 km for the Armed Forces.
3. The flight trial was conducted by the DRDO in collaboration with the Indian Space Research Organisation (ISRO).

Ans ☒ 1. 1 and 2 only
☐ 2. 2 and 3 only
☐ 3. 1 and 3 only
☐ 4. 1, 2 and 3

Q.20 Prabowo Subianto, who was invited as the chief guest for India's 76th Republic Day celebrations on 26 January 2025 is the President of which country?

Ans ☒ 1. Indonesia
☐ 2. Fiji
☐ 3. Japan
☐ 4. Vietnam

Section : **Arithmetical and Numerical Ability**

Q.1 The product of two numbers is 16245 and their HCF is 57. Find their LCM.

Ans ☐ 1. 284
☐ 2. 287
☐ 3. 288
☒ 4. 285

Q.2 The number 237229 is divisible by:

Ans ☐ 1. 60
☐ 2. 64
☒ 3. 61
☐ 4. 58

Q.3 A fruit vendor recovers the cost price of 30 pomegranates by selling 21 pomegranates. The profit percentage is:

Ans ☐ 1. 43%
☐ 2. $41\frac{1}{6}\%$
☐ 3. $42\frac{3}{4}\%$
☒ 4. $42\frac{6}{7}\%$

Q.4 Pulkit pours 5 litres of liquid into a tank every 4 minutes, while Shahu pours 4 litres every 5 minutes. How much time will they take together to fill a tank with 410 litres of liquid?

Ans ☐ 1. Between 2 hours and 2.5 hours
☐ 2. Less than 2 hours
☒ 3. More than 3 hours
☐ 4. Between 2.5 hours and 3 hours

Q.5 If at the same rate of interest, in 2 years, the simple interest is ₹54 and the compound interest (interest compounded annually) is ₹55, then what is the principal (in ₹)?

Ans ☐ 1. 724
☐ 2. 733
☒ 3. 729
☐ 4. 722

Q.6 In what ratio should sugar costing ₹86 per kg be mixed with sugar costing ₹11 per kg so that by selling the mixture at ₹44.80 per kg, there is a profit of 40%?

- Ans**
- ☐ 1. 19 : 52
 - ☐ 2. 22 : 53
 - ☒ 3. 21 : 54
 - ☐ 4. 23 : 56

Q.7 In an election between three candidates, Adam gets 45% of the total valid votes and Lucas received 40% of votes received by Adam. If the total number of votes was 40,000 and 20% of the total votes were declared invalid, then the number of valid votes received by third candidate Nic was:

- Ans**
- ☒ 1. 37% of total valid votes
 - ☐ 2. 29.6% of total votes
 - ☐ 3. double of votes received by Lucas
 - ☐ 4. three-fourth of the votes received by Adam

Q.8 Simplify: $(14 \times 4) \times \left\{ 6 \div 6 \times \frac{(18 - 14)}{2} \right\}$

- Ans**
- ☒ 1. 112
 - ☐ 2. 116
 - ☐ 3. 129
 - ☐ 4. 125

Q.9 Sapna invested ₹21,400 on simple interest, partly at 9% per annum and partly at 6% per annum. If she earns equal interests from the two investments after 6 years, then find the sum invested at 9% per annum (in ₹).

- Ans**
- ☐ 1. 8,557
 - ☒ 2. 8,560
 - ☐ 3. 8,559
 - ☐ 4. 8,563

Q.10 A train crosses a platform in 4 seconds and a man standing on the platform in 2 seconds. Find the length of the train and its speed, if the length of the platform is 80 m.

- Ans**
- ☐ 1. 20 m and 40 m/s
 - ☒ 2. 80 m and 40 m/s
 - ☐ 3. 60 m and 10 m/s
 - ☐ 4. 40 m and 20 m/s

Q.11 A shopkeeper lists the price of a fan at 50% above its cost price and offers a 30% discount on its list price. If he earns a profit of ₹87, then what is the list price (in ₹) of the fan?

- Ans**
- ☐ 1. 2,752
 - ☐ 2. 2,841
 - ☐ 3. 2,741
 - ☒ 4. 2,610

Q.12 If the mean proportional of X and 100 is 90, then find the value of X.

- Ans**
- ☐ 1. 83
 - ☒ 2. 81
 - ☐ 3. 79
 - ☐ 4. 84

Q.13

Simplify: $\left(\frac{15625}{16}\right)^{-\frac{3}{2}} \times \left(\frac{5}{4}\right)^4 \div (625)^{-\frac{3}{4}}$

Ans

- ☒ 1. $\frac{1}{100}$
☐ 2. $\frac{1}{93}$
☐ 3. $\frac{1}{94}$
☐ 4. $\frac{1}{110}$

Q.14 Simplify the following expression.

$$29^{-17} \times 19^{-17} \times 13^{-17}$$

Ans

- ☐ 1. $\left(\frac{1}{7200}\right)^{17}$
☐ 2. $\left(\frac{1}{7165}\right)^{17}$
☒ 3. $\left(\frac{1}{7163}\right)^{17}$
☐ 4. $\left(\frac{1}{7189}\right)^{17}$

Q.15 The sum of five numbers is 655. The average of the first two numbers is 80 and the third number is 132. Find the average of the remaining two numbers.

Ans

- ☐ 1. 213
☐ 2. 182.5
☐ 3. 212
☒ 4. 181.5

Q.16 A cistern has a hole in the bottom through which water is leaking. A tap can fill the cistern in 6 hours and the hole in the bottom can empty the fully filled cistern in 7 hours. If both the tap and the hole are open, then how long will it take to completely fill the empty cistern?

Ans

- ☐ 1. 36 hours
☐ 2. 30 hours
☐ 3. 42.1 hours
☒ 4. 42 hours

Q.17 A right-angled triangle with sides measuring 6 cm, 8 cm and 10 cm, is rotated around its side of length 6 cm. What is the surface area (in cm^2) of the solid formed?

Ans

- ☐ 1. 134π
☐ 2. 124π
☐ 3. 114π
☒ 4. 144π

Q.18 Find the circumference (in m) of the largest circle that can be inscribed in a rectangle whose dimensions are 238 m and 262 m. (Use $\pi = \frac{22}{7}$)

Ans

- ☒ 1. 748
☐ 2. 747
☐ 3. 743
☐ 4. 758

Q.19 Let x be the greatest number which, when divides 5355, 4030 and 6100, the remainders are 66, 31 and 37, respectively. What is the sum of the digits of x?

- Ans**
- ☐ 1. 20
 - ☐ 2. 28
 - ☐ 3. 22
 - ☒ 4. 12

Q.20 There were only two candidates for an assembly election. In that election, 8% of the voters did not cast their votes and 50 ballot papers were blank. The winner got votes equal to 53% of all the voters on the list and 1240 votes more than the opposite candidate. The total number of voters in the list was:

- Ans**
- ☐ 1. 7500
 - ☒ 2. 8500
 - ☐ 3. 8600
 - ☐ 4. 6200

Section : **Test of English Language and Comprehension**

Q.1 Sentences of a paragraph are given below. While the first and the last sentences (S1 and S6) are in the correct order, the sentences in between are jumbled up. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

S1. The lion used to be very widely distributed in Africa and Asia.

P. There are special forest zones set aside for wildlife in various countries.

Q. Indiscriminate killing by hunters has been the cause of this drastic fall in their numbers.

R. Today they are a relatively rare species.

S. If the species survives at all it will be only in national parks.

S6. No hunting is permitted in such reserved areas.

- Ans**
- ☐ 1. RSPQ
 - ☐ 2. SRPQ
 - ☐ 3. QSPR
 - ☒ 4. RQSP

Q.2 Select the most appropriate option to fill in the blank.

She is _____ tired to continue working.

- Ans**
- ☐ 1. enough
 - ☐ 2. barely
 - ☐ 3. hardly
 - ☒ 4. too

Q.3 Select the option that rectifies the underlined incorrectly spelt word in the given sentence.

Physicists recommend placing a satellite with large arrays of solar cells in a stasionary orbit.

- Ans**
- ☐ 1. stationery
 - ☒ 2. stationary
 - ☐ 3. stasionery
 - ☐ 4. stationaray

Q.4 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

Biologicals are _____ diverse group of medicines which includes vaccines, growth factors, immune modulators, monoclonal antibodies as well as products derived from human blood and plasma.

- Ans**
- ☐ 1. No article required
 - ☐ 2. the
 - ☐ 3. an
 - ☒ 4. a

Q.5 Select the most appropriate meaning of the given proverb.

Birds of a feather flock together.

- Ans**
- ☐ 1. People from different backgrounds can't coexist.
 - ☐ 2. People having different personalities work better together.
 - ☒ 3. Similar people tend to associate with each other.
 - ☐ 4. Birds always travel in groups.

Q.6 Select the most appropriate option to fill in the blank.

The reason _____ her absence was a family emergency.

- Ans**
- ☐ 1. to
 - ☐ 2. with
 - ☒ 3. for
 - ☐ 4. on

Q.7 Select the option that can be used as a one-word substitute for the highlighted group of words/phrase in the given sentence.

The glow of the setting sun had a tendency to cause sleep effect, casting long shadows across the landscape.

- Ans**
- ☐ 1. democratic
 - ☐ 2. eccentric
 - ☐ 3. panic
 - ☒ 4. hypnotic

Q.8 Select the most appropriate meaning of the given proverb.

Rome wasn't built in a day

- Ans**
- ☐ 1. Success comes quickly with right effort
 - ☐ 2. Always be optimistic about success
 - ☐ 3. Small tasks ensure bigger results
 - ☒ 4. Great things take time to achieve

Q.9 Select the correct spelling of the underlined incorrectly spelt word in the given sentence.

Correct the misspell word.

- Ans**
- ☐ 1. misspellt
 - ☐ 2. missplit
 - ☒ 3. misspelt
 - ☐ 4. misspel

Q.10 Select the most appropriate synonym of the underlined word given in the sentence.

He had many shares of the company which was later declared insolvent by the management during recession.

- Ans**
- ☐ 1. Significant
 - ☒ 2. Bankrupt
 - ☐ 3. Operational
 - ☐ 4. Comfortable

Q.11 Select the most appropriate word that best fits the description in the sentence.

His desire to cause someone pain or suffering for the sheer enjoyment attitude toward his colleagues gradually poisoned the work environment, sowing seeds of distrust and hostility.

- Ans**
- ☐ 1. Accusant
 - ☒ 2. Sadism
 - ☐ 3. Mutant
 - ☐ 4. Vacant

Q.12 Select the most appropriate synonym of the underlined word in the given sentence.

I maintained my cool in spite of her provocative behaviour.

- Ans**
- ☐ 1. Subduing
 - ☐ 2. Respectful
 - ☐ 3. Insulting
 - ☒ 4. Triggering

Q.13 Parts of a sentence are given below. While the first part (S1) is in the correct place, the remaining parts (labelled A, B, C, D and E) are jumbled up. Arrange the parts in the correct order to form a meaningful and coherent sentence.

S1. I have

A. never come across

B. any fragrances

C. that are more aromatic, beautiful

D. smell sense.

E. and pleasant to the

- Ans**
- ☐ 1. DABCE
 - ☐ 2. ABCDE
 - ☒ 3. ABCED
 - ☐ 4. ABDEC

Q.14 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

Adolescence is a unique stage of human development and an important time for laying _____ foundations of good health.

- Ans**
- ☐ 1. a
 - ☒ 2. the
 - ☐ 3. No article required
 - ☐ 4. an

Q.15 Select the most appropriate option to fill in the blank.

This road is _____ than the one we took last week.

- Ans**
- ☐ 1. wide
 - ☒ 2. wider
 - ☐ 3. widest
 - ☐ 4. most wide

Comprehension:

Read the given passage and answer the questions that follow.

The forces that generate conditions conducive to crime and riots are stronger in urban communities than in rural areas. Urban living is more anonymous living. It often releases the individual from community restraints more common in tradition-oriented societies. But more freedom from constraints and controls also provides greater freedom to deviate. And living in the more impersonalised, formally controlled urban society means that regulatory orders of conduct are often directed by distant bureaucrats. The police are strangers executing these perceptions on an anonymous set of subjects. Minor offences in small town or village are often handled without resort to official police action. As disputable as such action may seem to be, it results in fewer recorded violations of the law compared to big cities. Although perhaps causing some decision-difficulties for the police in small town, formal and objective law enforcement is not always acceptable to villagers. Urban areas with mass population, greater wealth, more commercial establishments and more products of our technology also provide more frequent opportunities for theft. Victims are impersonalised, property is insured, consumer goods in more abundance are vividly displayed and are more portable. The crime rate increases despite formal moral education given in schools.

SubQuestion No : 16

Q.16 Which of the following is a characteristic of an urban setting?

- Ans**
- ☐ 1. Unreported minor crimes
 - ☐ 2. Deviation from freedom
 - ☒ 3. Less forceful social control
 - ☐ 4. Fewer recorded violations of the law

Comprehension:

Read the given passage and answer the questions that follow.

The forces that generate conditions conducive to crime and riots are stronger in urban communities than in rural areas. Urban living is more anonymous living. It often releases the individual from community restraints more common in tradition-oriented societies. But more freedom from constraints and controls also provides greater freedom to deviate. And living in the more impersonalised, formally controlled urban society means that regulatory orders of conduct are often directed by distant bureaucrats. The police are strangers executing these perceptions on an anonymous set of subjects. Minor offences in small town or village are often handled without resort to official police action. As disputable as such action may seem to be, it results in fewer recorded violations of the law compared to big cities. Although perhaps causing some decision-difficulties for the police in small town, formal and objective law enforcement is not always acceptable to villagers. Urban areas with mass population, greater wealth, more commercial establishments and more products of our technology also provide more frequent opportunities for theft. Victims are impersonalised, property is insured, consumer goods in more abundance are vividly displayed and are more portable. The crime rate increases despite formal moral education given in schools.

SubQuestion No : 17

Q.17 Which of the following best summarises the passage?

- Ans**
- ☒ 1. Urban crime is higher because of lack of police presence.
 - ☒ 2. Rural societies are ideal and free from crime.
 - ☒ 3. The impersonality and structural characteristics of urban life create conditions more favourable to crime than rural life.
 - ☒ 4. Technology and education have eradicated crime in urban areas.

Comprehension:

Read the given passage and answer the questions that follow.

The forces that generate conditions conducive to crime and riots are stronger in urban communities than in rural areas. Urban living is more anonymous living. It often releases the individual from community restraints more common in tradition-oriented societies. But more freedom from constraints and controls also provides greater freedom to deviate. And living in the more impersonalised, formally controlled urban society means that regulatory orders of conduct are often directed by distant bureaucrats. The police are strangers executing these perceptions on an anonymous set of subjects. Minor offences in small town or village are often handled without resort to official police action. As disputable as such action may seem to be, it results in fewer recorded violations of the law compared to big cities. Although perhaps causing some decision-difficulties for the police in small town, formal and objective law enforcement is not always acceptable to villagers. Urban areas with mass population, greater wealth, more commercial establishments and more products of our technology also provide more frequent opportunities for theft. Victims are impersonalised, property is insured, consumer goods in more abundance are vividly displayed and are more portable. The crime rate increases despite formal moral education given in schools.

SubQuestion No : 18

Q.18 What is the central theme of the passage?

- Ans**
- ☒ 1. Urbanisation and impersonal governance contribute significantly to higher crime rates in cities.
 - ☒ 2. Education has failed to prevent crime in villages.
 - ☒ 3. Traditional societies should adopt more modern forms of law enforcement.
 - ☒ 4. Police officers are ineffective in both urban and rural areas.

Comprehension:

Read the given passage and answer the questions that follow.

The forces that generate conditions conducive to crime and riots are stronger in urban communities than in rural areas. Urban living is more anonymous living. It often releases the individual from community restraints more common in tradition-oriented societies. But more freedom from constraints and controls also provides greater freedom to deviate. And living in the more impersonalised, formally controlled urban society means that regulatory orders of conduct are often directed by distant bureaucrats. The police are strangers executing these perceptions on an anonymous set of subjects. Minor offences in small town or village are often handled without resort to official police action. As disputable as such action may seem to be, it results in fewer recorded violations of the law compared to big cities. Although perhaps causing some decision-difficulties for the police in small town, formal and objective law enforcement is not always acceptable to villagers. Urban areas with mass population, greater wealth, more commercial establishments and more products of our technology also provide more frequent opportunities for theft. Victims are impersonalised, property is insured, consumer goods in more abundance are vividly displayed and are more portable. The crime rate increases despite formal moral education given in schools.

SubQuestion No : 19

Q.19 Which of the following real-world trends supports the argument presented in the passage?

- Ans**
- ☒ 1. Rural areas consistently report higher rates of organised crime than urban centres.
 - ☒ 2. Urban police always live within the communities they serve, ensuring better community trust.
 - ☒ 3. Cities with higher population densities often struggle with elevated crime rates and overburdened police forces.
 - ☒ 4. Villages are more prone to theft due to lack of technological surveillance.

Comprehension:

Read the given passage and answer the questions that follow.

The forces that generate conditions conducive to crime and riots are stronger in urban communities than in rural areas. Urban living is more anonymous living. It often releases the individual from community restraints more common in tradition-oriented societies. But more freedom from constraints and controls also provides greater freedom to deviate. And living in the more impersonalised, formally controlled urban society means that regulatory orders of conduct are often directed by distant bureaucrats. The police are strangers executing these perceptions on an anonymous set of subjects. Minor offences in small town or village are often handled without resort to official police action. As disputable as such action may seem to be, it results in fewer recorded violations of the law compared to big cities. Although perhaps causing some decision-difficulties for the police in small town, formal and objective law enforcement is not always acceptable to villagers. Urban areas with mass population, greater wealth, more commercial establishments and more products of our technology also provide more frequent opportunities for theft. Victims are impersonalised, property is insured, consumer goods in more abundance are vividly displayed and are more portable. The crime rate increases despite formal moral education given in schools.

SubQuestion No : 20

Q.20 What is the tone of the passage?

- Ans
- ☒ 1. Idealistic and celebratory
 - ☒ 2. Sarcastic and dismissive
 - ☒ 3. Objective and analytical
 - ☒ 4. Emotional and nostalgic

Section : Test of Hindi Language and Comprehension

Q.1 दिये गये वाक्य के किस भाग में त्रुटि है-

शिक्षा मनुष्य के भीतर अच्छे विचारों का निर्माण करती है, मनुष्य के जीवन का मार्ग पृशस्त करती है ।

- Ans
- ☒ 1. अच्छे विचारों का निर्माण करती है,
 - ☒ 2. शिक्षा मनुष्य के भीतर
 - ☒ 3. मार्ग पृशस्त करती है ।
 - ☒ 4. मनुष्य के जीवन का

Q.2 'आस्तिक' का विलोम कौन-सा शब्द है-

- Ans
- ☒ 1. धर्मभीरु
 - ☒ 2. अधार्मिक
 - ☒ 3. अनास्था
 - ☒ 4. नास्तिक

Q.3 उपयुक्त 'क्रियाविशेषण' का प्रयोग कर वाक्य को पूर्ण कीजिए ।
'वहकरके सबसे बात करता है । '

- Ans
- ☒ 1. जब कभी
 - ☒ 2. एक- एक
 - ☒ 3. आजन्म
 - ☒ 4. जिससे

Q.4 दिए गए वाक्य के किस भाग में त्रुटि है ?
'इस कियारी में फूल खिले हैं । '

- Ans
- ☒ 1. इस
 - ☒ 2. फूल
 - ☒ 3. खिले
 - ☒ 4. कियारी

Q.5 निम्नलिखित मुहावरे के उपयुक्त अर्थ का चयन करें
नाव में धूल उड़ाना

- Ans
- ☒ 1. होश न रहना
 - ☒ 2. नामुमकिन कार्य करना
 - ☒ 3. व्यर्थ बदनाम करना
 - ☒ 4. पहुँच न सकना

Q.6 उपयुक्त 'क्रिया' का प्रयोग कर वाक्य को पूर्ण कीजिए।
' दादा अपने नाती के साथहैं । '

- Ans
- ☐ 1. पकते
 - ☐ 2. खीझते
 - ☒ 3. खेलते
 - ☐ 4. सुलझाते

Q.7 निम्नलिखित में से 'थोक' का विलोम क्या है?

- Ans
- ☐ 1. थोड़ा
 - ☐ 2. सूक्ष्म
 - ☒ 3. फुटकर
 - ☐ 4. कम

Q.8 'गुदड़ी का लाल' मुहावरे का उचित अर्थ क्या है?

- Ans
- ☐ 1. समाप्त हो जाना ।
 - ☐ 2. दिखावटी धमकी ।
 - ☐ 3. समझदार व्यक्ति ।
 - ☒ 4. गरीब के घर में गुणवान का पैदा होना ।

Q.9 अतिरिक्त वाक्य का चयन करें

वाक्य क: प्राचीन काल में जनक महाराज विदेह में राज्य करते थे

वाक्य ख: बाबा आमटे ने समाज द्वारा तिरस्कृत कुस्त रोगियों की सेवा में अपना समस्त जीवन समर्पित कर दिया

वाक्य ग: मिथिला विदेह की राजधानी थी

वाक्य घ: कहा जाता है कि महाराज जनक ज्ञानी थे

- Ans
- ☐ 1. वाक्य ग
 - ☒ 2. वाक्य ख
 - ☐ 3. वाक्य घ
 - ☐ 4. वाक्य क

Q.10 दिए गए वाक्यों में से तीन का संबंध एक ही संदर्भ से जुड़ा हुआ है, जबकि एक वाक्य अतिरिक्त है। इनमें से अतिरिक्त वाक्य का चयन करें

- Ans
- ☒ 1. समुद्र में कई प्रकार की दुर्लभ मछलियाँ और अन्य जीव पाए जाते हैं।
 - ☐ 2. भारतीय स्वतंत्रता संग्राम में महिलाओं की महत्वपूर्ण भूमिका रही थी।
 - ☐ 3. झांसी की रानी लक्ष्मीबाई और सरोजिनी नायडू ने संघर्ष में अग्रणी भूमिका निभाई।
 - ☐ 4. स्वतंत्रता के बाद भी महिलाओं ने राजनीति, विज्ञान और शिक्षा के क्षेत्र में अपना योगदान दिया।

Q.11 उपयुक्त 'विशेषण' का प्रयोग कर वाक्य को पूर्ण कीजिए।
'गुनगुन ने _____टोपी लगाई है।'

- Ans
- ☒ 1. गोल
 - ☐ 2. नुकीला
 - ☐ 3. वर्तमान
 - ☐ 4. मौसमी

Q.12 “जो तुरंत सोच लेता हो”- वाक्यांश के लिए एक शब्द होगा-

- Ans
- ☐ 1. विद्वान
 - ☐ 2. प्रतिवादी
 - ☐ 3. कुशाग्रबुद्धि
 - ☒ 4. प्रत्युत्पन्नमति

Q.13 'सपने -----हैं।' वाक्य के रिक्त स्थान के लिए उपयुक्त क्रिया शब्द है-

- Ans
- ☐ 1. चलचित्र
 - ☒ 2. दिखते
 - ☐ 3. डरावने
 - ☐ 4. सुनहरे

Q.14	'पहाड़ों पर जंगल-----हैं।' वाक्य के रिक्त स्थान के लिए उपयुक्त विशेषण पद है-
Ans	1. उग रहे 2. हरे 3. कट रहे 4. जल रहे

Q.15	'जो स्त्री विद्वान हो' वाक्यांश के लिए एक सार्थक शब्द होगा –
Ans	1. ज्ञेय 2. विमति 3. स्त्रैण 4. विदुषी

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -
 देश-प्रेम है क्या? प्रेम ही तो है! बिना परिचय के प्रेम नहीं हो सकता । इस प्रेम का आलंबन क्या है? सारा देश अर्थात् मनुष्य, पशु-पक्षी, नदी-नाले, वन-पर्वत, सागर अर्थात् सारी भूमि और उसके सभी जीव – देश ही तो है! यह प्रेम किस प्रकार का है? यह साहचर्यगत प्रेम है । जिनके बीच हम रहते हैं. जिनका हमारा हर घड़ी का साथ रहता है, जिन्हें हम रोज आँखों से देखते हैं, जिनकी बातें हम रोज सुनते हैं अर्थात् जिनके सान्निध्य के हम अभ्यासी हो जाते हैं उनके प्रति राग या लोभ हो सकता है । पशु और बालक भी जिनके साथ अधिक रहते हैं, उनसे परच जाते हैं । यह परचना परिचय ही है और परिचय ही प्रेम का प्रवर्तक है । बिना परिचय के प्रेम नहीं हो सकता है । यदि प्रेम वास्तव में अंतःकरण का कोई भाव है तो देश के स्वरूप से परिचित और अभ्यस्त हो जाइए ।
 बाहर निकलिए तो आँख खोलकर देखिए कि खेत कैसे लहलहा रहे हैं, नाले झाड़ियों के बीच कैसे बह रहे हैं, टेसू के फूलों से वनस्थली कैसी लाल हो रही है । कछारों में चौपायों के झुंड इधर-उधर चरते हैं, चरवाहे तान लड़ा रहे हैं, अमराइयों के बीच गाँव झाँक रहे हैं; उनमें घुसिए, देखिए तो क्या हो रहा है । जो मिले, उससे दो-दो बातें कीजिए, उनके साथ किसी पेड़ की छाया के नीचे घड़ी-आध-घड़ी बैठ जाइए इसलिए कि वे सब हमारे देश के हैं । इस प्रकार जब देश का रूप आपकी बुद्धि में समा जाएगा, आप उनके अंग-प्रत्यंग से परिचित हो जाएँगे, तब आपके अंतःकरण में इस इच्छा का सचमुच उदय होगा कि वह कभी न छूटे, वह सदा हरा-भरा और फला-फूला रहे, उसके धनधान्य की वृद्धि हो, उसके सभी प्राणी सुखी रहें ।

SubQuestion No : 16

Q.16	गद्यांश का केंद्रीय भाव क्या है ?
Ans	1. देश-प्रेम के लाभ बताना 2. देश-प्रेम की भावना को जागृत करना 3. देश-प्रेम की परिभाषा एवं महत्व बताना 4. देश-प्रेम का महत्व एवं हानि बताना

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -
 देश-प्रेम है क्या? प्रेम ही तो है! बिना परिचय के प्रेम नहीं हो सकता । इस प्रेम का आलंबन क्या है? सारा देश अर्थात् मनुष्य, पशु-पक्षी, नदी-नाले, वन-पर्वत, सागर अर्थात् सारी भूमि और उसके सभी जीव – देश ही तो है! यह प्रेम किस प्रकार का है? यह साहचर्यगत प्रेम है । जिनके बीच हम रहते हैं. जिनका हमारा हर घड़ी का साथ रहता है, जिन्हें हम रोज आँखों से देखते हैं, जिनकी बातें हम रोज सुनते हैं अर्थात् जिनके सान्निध्य के हम अभ्यासी हो जाते हैं उनके प्रति राग या लोभ हो सकता है । पशु और बालक भी जिनके साथ अधिक रहते हैं, उनसे परच जाते हैं । यह परचना परिचय ही है और परिचय ही प्रेम का प्रवर्तक है । बिना परिचय के प्रेम नहीं हो सकता है । यदि प्रेम वास्तव में अंतःकरण का कोई भाव है तो देश के स्वरूप से परिचित और अभ्यस्त हो जाइए ।
 बाहर निकलिए तो आँख खोलकर देखिए कि खेत कैसे लहलहा रहे हैं, नाले झाड़ियों के बीच कैसे बह रहे हैं, टेसू के फूलों से वनस्थली कैसी लाल हो रही है । कछारों में चौपायों के झुंड इधर-उधर चरते हैं, चरवाहे तान लड़ा रहे हैं, अमराइयों के बीच गाँव झाँक रहे हैं; उनमें घुसिए, देखिए तो क्या हो रहा है । जो मिले, उससे दो-दो बातें कीजिए, उनके साथ किसी पेड़ की छाया के नीचे घड़ी-आध-घड़ी बैठ जाइए इसलिए कि वे सब हमारे देश के हैं । इस प्रकार जब देश का रूप आपकी बुद्धि में समा जाएगा, आप उनके अंग-प्रत्यंग से परिचित हो जाएँगे, तब आपके अंतःकरण में इस इच्छा का सचमुच उदय होगा कि वह कभी न छूटे, वह सदा हरा-भरा और फला-फूला रहे, उसके धनधान्य की वृद्धि हो, उसके सभी प्राणी सुखी रहें ।

SubQuestion No : 17

Q.17	गद्यांश का उपयुक्त शीर्षक है -
Ans	1. देश-प्रेम 2. प्रकृति प्रेम 3. मानव प्रेम 4. सामाजिक प्रेम

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

देश-प्रेम है क्या? प्रेम ही तो है! बिना परिचय के प्रेम नहीं हो सकता। इस प्रेम का आलंबन क्या है? सारा देश अर्थात् मनुष्य, पशु-पक्षी, नदी-नाले, वन-पर्वत, सागर अर्थात् सारी भूमि और उसके सभी जीव – देश ही तो है! यह प्रेम किस प्रकार का है? यह साहचर्यगत प्रेम है। जिनके बीच हम रहते हैं, जिनका हमारा हर घड़ी का साथ रहता है, जिन्हें हम रोज आँखों से देखते हैं, जिनकी बातें हम रोज सुनते हैं अर्थात् जिनके सान्निध्य के हम अभ्यासी हो जाते हैं उनके प्रति राग या लोभ हो सकता है। पशु और बालक भी जिनके साथ अधिक रहते हैं, उनसे परच जाते हैं। यह परचना परिचय ही है और परिचय ही प्रेम का प्रवर्तक है। बिना परिचय के प्रेम नहीं हो सकता है। यदि प्रेम वास्तव में अंतःकरण का कोई भाव है तो देश के स्वरूप से परिचित और अभ्यस्त हो जाइए।

बाहर निकलिए तो आँख खोलकर देखिए कि खेत कैसे लहलहा रहे हैं, नाले झाड़ियों के बीच कैसे बह रहे हैं, टेसू के फूलों से वनस्थली कैसी लाल हो रही है। कछारों में चौपायों के झुंड इधर-उधर चरते हैं, चरवाहे तान लड़ा रहे हैं, अमराइयों के बीच गाँव झाँक रहे हैं; उनमें घुसिए, देखिए तो क्या हो रहा है। जो मिले, उससे दो-दो बातें कीजिए, उनके साथ किसी पेड़ की छाया के नीचे घड़ी-आध-घड़ी बैठ जाइए इसलिए कि वे सब हमारे देश के हैं। इस प्रकार जब देश का रूप आपकी बुद्धि में समा जाएगा, आप उनके अंग-प्रत्यंग से परिचित हो जाएँगे, तब आपके अंतःकरण में इस इच्छा का सचमुच उदय होगा कि वह कभी न छूटे, वह सदा हरा-भरा और फला-फूला रहे, उसके धनधान्य की वृद्धि हो, उसके सभी प्राणी सुखी रहें।

SubQuestion No : 18

Q.18 गद्यांश के अनुसार, देश-प्रेम किस प्रकार का भाव है?

- Ans
- ☒ 1. केवल त्याग की भावना
 - ☒ 2. केवल कर्तव्य पालन
 - ☒ 3. अंतःकरण का भाव
 - ☒ 4. केवल सम्मान प्रदर्शन

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

देश-प्रेम है क्या? प्रेम ही तो है! बिना परिचय के प्रेम नहीं हो सकता। इस प्रेम का आलंबन क्या है? सारा देश अर्थात् मनुष्य, पशु-पक्षी, नदी-नाले, वन-पर्वत, सागर अर्थात् सारी भूमि और उसके सभी जीव – देश ही तो है! यह प्रेम किस प्रकार का है? यह साहचर्यगत प्रेम है। जिनके बीच हम रहते हैं, जिनका हमारा हर घड़ी का साथ रहता है, जिन्हें हम रोज आँखों से देखते हैं, जिनकी बातें हम रोज सुनते हैं अर्थात् जिनके सान्निध्य के हम अभ्यासी हो जाते हैं उनके प्रति राग या लोभ हो सकता है। पशु और बालक भी जिनके साथ अधिक रहते हैं, उनसे परच जाते हैं। यह परचना परिचय ही है और परिचय ही प्रेम का प्रवर्तक है। बिना परिचय के प्रेम नहीं हो सकता है। यदि प्रेम वास्तव में अंतःकरण का कोई भाव है तो देश के स्वरूप से परिचित और अभ्यस्त हो जाइए।

बाहर निकलिए तो आँख खोलकर देखिए कि खेत कैसे लहलहा रहे हैं, नाले झाड़ियों के बीच कैसे बह रहे हैं, टेसू के फूलों से वनस्थली कैसी लाल हो रही है। कछारों में चौपायों के झुंड इधर-उधर चरते हैं, चरवाहे तान लड़ा रहे हैं, अमराइयों के बीच गाँव झाँक रहे हैं; उनमें घुसिए, देखिए तो क्या हो रहा है। जो मिले, उससे दो-दो बातें कीजिए, उनके साथ किसी पेड़ की छाया के नीचे घड़ी-आध-घड़ी बैठ जाइए इसलिए कि वे सब हमारे देश के हैं। इस प्रकार जब देश का रूप आपकी बुद्धि में समा जाएगा, आप उनके अंग-प्रत्यंग से परिचित हो जाएँगे, तब आपके अंतःकरण में इस इच्छा का सचमुच उदय होगा कि वह कभी न छूटे, वह सदा हरा-भरा और फला-फूला रहे, उसके धनधान्य की वृद्धि हो, उसके सभी प्राणी सुखी रहें।

SubQuestion No : 19

Q.19 अस्त का विलोम शब्द गद्यांश में से चुनकर लिखिए-

- Ans
- ☒ 1. क्षितिज
 - ☒ 2. पस्त
 - ☒ 3. उदय
 - ☒ 4. ढलना

Comprehension:

निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

देश-प्रेम है क्या? प्रेम ही तो है! बिना परिचय के प्रेम नहीं हो सकता। इस प्रेम का आलंबन क्या है? सारा देश अर्थात् मनुष्य, पशु-पक्षी, नदी-नाले, वन-पर्वत, सागर अर्थात् सारी भूमि और उसके सभी जीव – देश ही तो है! यह प्रेम किस प्रकार का है? यह साहचर्यगत प्रेम है। जिनके बीच हम रहते हैं, जिनका हमारा हर घड़ी का साथ रहता है, जिन्हें हम रोज आँखों से देखते हैं, जिनकी बातें हम रोज सुनते हैं अर्थात् जिनके सान्निध्य के हम अभ्यासी हो जाते हैं उनके प्रति राग या लोभ हो सकता है। पशु और बालक भी जिनके साथ अधिक रहते हैं, उनसे परच जाते हैं। यह परचना परिचय ही है और परिचय ही प्रेम का प्रवर्तक है। बिना परिचय के प्रेम नहीं हो सकता है। यदि प्रेम वास्तव में अंतःकरण का कोई भाव है तो देश के स्वरूप से परिचित और अभ्यस्त हो जाइए।

बाहर निकलिए तो आँख खोलकर देखिए कि खेत कैसे लहलहा रहे हैं, नाले झाड़ियों के बीच कैसे बह रहे हैं, टेसू के फूलों से वनस्थली कैसी लाल हो रही है। कछारों में चौपायों के झुंड इधर-उधर चरते हैं, चरवाहे तान लड़ा रहे हैं, अमराइयों के बीच गाँव झाँक रहे हैं; उनमें घुसिए, देखिए तो क्या हो रहा है। जो मिले, उससे दो-दो बातें कीजिए, उनके साथ किसी पेड़ की छाया के नीचे घड़ी-आध-घड़ी बैठ जाइए इसलिए कि वे सब हमारे देश के हैं। इस प्रकार जब देश का रूप आपकी बुद्धि में समा जाएगा, आप उनके अंग-प्रत्यंग से परिचित हो जाएँगे, तब आपके अंतःकरण में इस इच्छा का सचमुच उदय होगा कि वह कभी न छूटे, वह सदा हरा-भरा और फला-फूला रहे, उसके धनधान्य की वृद्धि हो, उसके सभी प्राणी सुखी रहें।

SubQuestion No : 20

Q.20 परच जाना शब्द से गद्यांश में क्या अभिप्राय है ?

- Ans
- ☒ 1. द्वेष रखना
 - ☒ 2. पहचान जाना
 - ☒ 3. विराग करना
 - ☒ 4. निकट आना

Q.1 What is the output of the following SQL command if the subquery returns no rows?
`DELETE FROM Product WHERE ProductID IN (SELECT ProductID FROM ArchivedProduct WHERE Status = 'Sell');`

- Ans**
- ☒ 1. No rows are deleted
 - ☐ 2. Rows will be deleted from ArchivedProduct
 - ☐ 3. All rows in Product are deleted
 - ☐ 4. Error

Q.2 Consider the following statements.

P. The output of the four inputs AND gate is 1 when all the four inputs values are 1's.

Q. The output of the four inputs AND gate is 0 when at least one input value is 0.

R. Three AND gates are used in the implement given three variable Boolean function $F(A, B, C) = AB + BC + AC$ using basic logic gates.

Which of the given statements are correct in a digital logic system?

- Ans**
- ☒ 1. P, Q, and R
 - ☐ 2. Only P and R
 - ☐ 3. Only Q and R
 - ☐ 4. Only P and Q

Q.3 What does the DROP TABLE command do?

- Ans**
- ☒ 1. Deletes a table permanently from the database
 - ☐ 2. Deletes all records in a table but keeps the structure
 - ☐ 3. Restores deleted data from the table
 - ☐ 4. Deletes only duplicate rows in a table

Q.4 In distributed systems, what mechanism is used to maintain consistency across nodes?

- Ans**
- ☐ 1. Multithreading
 - ☒ 2. Replication and synchronization
 - ☐ 3. Context switching
 - ☐ 4. Kernel scheduling

Q.5 Which of the following describes a blocked (or waiting) process queue?

- Ans**
- ☒ 1. It holds processes that are waiting for some event or resource, like I/O.
 - ☐ 2. It holds processes that are waiting for the CPU to become available.
 - ☐ 3. It holds processes that are in the running state.
 - ☐ 4. It holds terminated processes.

Q.6 Contiguous allocation is most suitable for which type of systems?

- Ans**
- ☐ 1. Systems with dynamic file sizes
 - ☒ 2. Real-time systems requiring fast access
 - ☐ 3. Multi-user systems with high I/O demands
 - ☐ 4. Systems with limited storage

Q.7 In which scenario would the ReadConsole system call be used over ReadFile?

- Ans**
- ☒ 1. When reading from the console or terminal window
 - ☐ 2. When reading from a disk file
 - ☐ 3. When reading from a database
 - ☐ 4. When reading input from a network socket

Q.8 What is the Boolean expression for a 2-input NOR gate?

- Ans**
- ☐ 1. $A \cdot B$
 - ☐ 2. $\overline{A \cdot B}$
 - ☐ 3. $A + B$
 - ☒ 4. $\overline{A + B}$

Q.9 What mechanism is used by TCP to establish a reliable connection?

- Ans**
- ☒ 1. Three-way handshake
 - ☐ 2. Four-way handshake
 - ☐ 3. Two-way handshake
 - ☐ 4. Simple handshake

Q.10 Which of the following is NOT a benefit of using threads in an operating system?

- Ans**
- ☐ 1. Increased system resource utilisation
 - ☒ 2. Faster execution of tasks in single-core processors
 - ☐ 3. Simplified programming model
 - ☐ 4. Improved application responsiveness

Q.11 Which of the following statements is true about TRUNCATE in SQL (Structured Query Language)?

- Ans**
- ☒ 1. TRUNCATE is faster than DELETE.
 - ☐ 2. TRUNCATE is a DML command.
 - ☐ 3. TRUNCATE does not remove data from the table.
 - ☐ 4. TRUNCATE removes table structure.

Q.12 What is the size of the TCP header without any options?

- Ans**
- ☐ 1. 32 bytes
 - ☒ 2. 20 bytes
 - ☐ 3. 16 bytes
 - ☐ 4. 24 bytes

Q.13 Which TCP timer is responsible for retransmitting a packet if its acknowledgment is NOT received within a specific time?

- Ans**
- ☐ 1. TIME-WAIT Timer
 - ☒ 2. Retransmission Timer
 - ☐ 3. Keepalive Timer
 - ☐ 4. Persistence Timer

Q.14 _____ is NOT a valid SQL:1999 data type.

- Ans**
- ☐ 1. DATE
 - ☐ 2. BOOLEAN
 - ☒ 3. ENUM
 - ☐ 4. STRING

Q.15 Which of the following mechanisms ensures that data is NOT duplicated after crash recovery?

- Ans**
- ☒ 1. Sequence numbers and acknowledgments
 - ☐ 2. Window size adjustment
 - ☐ 3. Timeouts
 - ☐ 4. Port numbers

Q.16 What is the advantage of using a sliding window over a stop-and-wait protocol?

- Ans**
- ☐ 1. Sliding window uses larger packet sizes.
 - ☐ 2. Sliding window requires no acknowledgments.
 - ☐ 3. Sliding window is simpler to implement.
 - ☒ 4. Sliding window increases throughput by allowing multiple packets to be sent before acknowledgment.

Q.17 Which of the following systems typically DO NOT use contiguous allocation?

- Ans**
- ☐ 1. CD-ROM systems
 - ☐ 2. Video streaming systems
 - ☐ 3. Real-time systems
 - ☒ 4. General-purpose operating systems with dynamic file sizes

Q.18 What type of communication does TCP support?

- Ans**
- ☒ 1. Full-duplex
 - ☐ 2. Broadcast
 - ☐ 3. Stateless
 - ☐ 4. Connectionless

Q.19 What is the role of a checksum in ensuring message integrity?

- Ans**
- ☐ 1. To authenticate the sender
 - ☒ 2. To detect errors or alterations in the transmitted message
 - ☐ 3. To encrypt the message during transmission
 - ☐ 4. To validate the size of the message

Q.20 Which of the following statements correctly updates the Bill column in the Customer table by applying a 10% discount only for customers who belong to the 'High privilege' account?

- Ans**
- ☐ 1. UPDATE Customer SET Bill = Bill / 1.1;
 - ☐ 2. MODIFY Customer SET Bill = Bill / 1.1 WHERE Account = 'High privilege';
 - ☒ 3. UPDATE Customer SET Bill = Bill / 1.1 WHERE Account = 'High privilege';
 - ☐ 4. UPDATE Customer (Bill) VALUES (Bill / 1.1) WHERE Account = 'High privilege';

Section : **Discipline2**

Q.1 Which declaration is valid for a 2D array in C?

- Ans**
- ☒ 1. int arr[2][2] = {1,2,3,4};
 - ☐ 2. int arr[][] = {{1,2}, {3,4}};
 - ☐ 3. int arr[] = {1,2,3,4};
 - ☐ 4. int arr[2,2] = {{1,2}, {3,4}};

Q.2 What is the output of the following code? #include <stdio.h>

```
void func(int *p) {  
    int q = 10;  
    p = &q;  
}  
int main() {  
    int x = 20, *ptr = &x;  
    func(ptr);  
    printf("%d\n", *ptr);  
    return 0;  
}
```

- Ans**
- ☒ 1. 20
 - ☐ 2. Compile time error
 - ☐ 3. Garbage value
 - ☐ 4. 10

Q.3 Which of the following is NOT a type of loop in C?

- Ans**
- ☐ 1. while loop
 - ☒ 2. foreach loop
 - ☐ 3. do-while loop
 - ☐ 4. for loop

Q.4 Which of the following is NOT a valid identifier in Java?

- Ans**
- ☒ 1. static
 - ☐ 2. my_var123
 - ☐ 3. myvar123
 - ☐ 4. _myvar

Q.5 What will be the output of the following code?

```
#include <stdio.h>
int main() {
int arr[] = {1, 2, 3, 4, 5};
printf("%d %d \n", arr[2], *(arr + 2));
return 0;
}
```

- Ans**
- ☒ 1. 3 3
 - ☐ 2. Undefined Behavior
 - ☐ 3. 2 2
 - ☐ 4. Compilation Error

Q.6 Given a 3-dimensional array C[3][4][5] stored in row-major order, with each element occupying 1 byte, and the base address 3000, what is the address of C[2][3][4]?

- Ans**
- ☐ 1. 3124
 - ☐ 2. 3057
 - ☒ 3. 3059
 - ☐ 4. 3171

Q.7 Consider the following statements regarding digital logic systems and select the correct statements.

P. The output of the n inputs NAND gate is 0 when all the n inputs values are 1's.
Q. The output of the n inputs NAND gate is 1 when all the n inputs values are 0's.
R. The output of the n inputs NAND gate is 1 when all the n inputs values are 1's.
S. Minimum three NAND gates are used to implement the given three variable Boolean function $F(A, B, C) = AB + BC$ using only NAND logic gates.

- Ans**
- ☐ 1. P, Q, R and S
 - ☐ 2. Only P, R and S
 - ☐ 3. Only P, Q and R
 - ☒ 4. Only P, Q and S

Q.8 What is required to write a recursive function?

- Ans**
- ☐ 1. Only a recursive call
 - ☐ 2. A pointer variable
 - ☒ 3. A base condition and a recursive call
 - ☐ 4. A loop and a return statement

Q.9 What will be the output of the following code?

```
public class ExceptionDemo {
public static void main(String[] args) {
try {
int[] numbers = {1, 2, 3};
System.out.println(numbers[5]);
} catch (Exception e) {
System.out.println("Exception caught: " + e.getClass().getName());
} finally {
System.out.println("Execution completed.");
}
}
}
```

- Ans**
- ☒ 1. Exception caught: java.lang.ArrayIndexOutOfBoundsException. Execution completed.
 - ☐ 2. Compilation error
 - ☐ 3. Exception caught: java.lang.Exception . Execution completed.
 - ☐ 4. Exception caught: java.lang.IndexOutOfBoundsException . Execution completed.

Q.10 What will be the output of the following code?

```
class Test {  
    Test(int x) {  
        System.out.println("Parameterized Constructor");  
    }  
    Test() {  
        this(10);  
        System.out.println("Default Constructor");  
    }  
    public static void main(String[] args) {  
        Test obj = new Test();  
    }  
}
```

- Ans**
- ☐ 1. Compilation Error
 - ☐ 2. Default Constructor
 - ☐ 3. Parameterized Constructor
 - ☒ 4. Parameterized Constructor followed by Default Constructor

Q.11 What will happen if the following declaration is used in C?

```
int a, b, c = 10;
```

- Ans**
- ☐ 1. Runtime error
 - ☒ 2. Only c is initialized to 10; a and b are uninitialized.
 - ☐ 3. Syntax error due to missing initialization of a and b.
 - ☐ 4. a, b, and c are all initialized to 10.

Q.12 Which of the following is NOT an arithmetic operator in C?

- Ans**
- ☐ 1. -
 - ☒ 2. &&
 - ☐ 3. +
 - ☐ 4. %

Q.13 What will be the output of the following expression?

```
#include<stdio.h>  
int main() {  
    printf("%d", 7>=7);  
    return 0;  
}
```

- Ans**
- ☐ 1. TRUE
 - ☒ 2. 1
 - ☐ 3. 0
 - ☐ 4. false

Q.14 Which among the following is the primary purpose of using interfaces in Java?

- Ans**
- ☒ 1. To achieve multiple inheritance
 - ☐ 2. To improve user experience
 - ☐ 3. To avoid creating objects
 - ☐ 4. To reduce memory usage

Q.15 A company wants to develop a software tool that identifies duplicate entries in a large database while ensuring scalability and accuracy. Which computational thinking steps should be prioritised, and in what order, to achieve an efficient solution?

- Ans**
- ☐ 1. Decomposition->Algorithm Design->Pattern Recognition->Abstraction
 - ☐ 2. Algorithm Design->Abstraction → Decomposition->Pattern Recognition
 - ☒ 3. Abstraction → Decomposition → Pattern Recognition → Algorithm Design
 - ☐ 4. Pattern Recognition → Algorithm Design->Abstraction → Decomposition

Q.16 Which of the following is a wrapper class in Java?

- Ans**
- ☐ 1. char
 - ☐ 2. boolean
 - ☒ 3. Integer
 - ☐ 4. float

Q.17 When solving a Sudoku puzzle using computational thinking, which step is the most critical for ensuring efficiency?

- Ans**
- ☐ 1. Brute force approach
 - ☒ 2. Pattern recognition
 - ☐ 3. Abstraction
 - ☐ 4. Problem decomposition

Q.18 What is the result of the expression: $!(5 > 3) \ \&\& \ (8 < 10)$?

- Ans**
- ☐ 1. undefined behavior
 - ☒ 2. FALSE
 - ☐ 3. TRUE
 - ☐ 4. compile error

Q.19 In a signed 8-bit system, how is -8 represented in 2's complement?

- Ans**
- ☐ 1. 1000
 - ☐ 2. 11111111
 - ☒ 3. 11111000
 - ☐ 4. 10001000

Q.20 What will happen if we DO NOT use the break statement in a switch case?

- Ans**
- ☐ 1. The program will throw a compilation error.
 - ☐ 2. The program will throw a runtime error.
 - ☒ 3. The control will continue executing the following cases until the end of the switch block is encountered.
 - ☐ 4. The control will break out of the switch automatically after the first matching case.

Section : **Discipline3**

Q.1 What is the purpose of kerning in typography?

- Ans**
- ☒ 1. To adjust the space between characters
 - ☐ 2. To change font size
 - ☐ 3. To adjust the space between words
 - ☐ 4. To adjust the space between lines

Q.2 Which of the following is an advantage of the linked list over an array?

- Ans**
- ☐ 1. Linked list takes less storage to store the n elements as compared to array.
 - ☐ 2. Inserting an element as last element of the linked list takes less time as compared to array.
 - ☐ 3. Linked list takes less time to access the i^{th} element as compared to array.
 - ☒ 4. Inserting an element at beginning of the linked list takes less time as compared to array.

Q.3 In a 2D array, how are elements stored in memory?

- Ans**
- ☒ 1. Contiguously in a single block
 - ☐ 2. In separate blocks for each row
 - ☐ 3. In separate blocks for each column
 - ☐ 4. Not stored in memory

Q.4 How does one prevent a form from submitting when using JavaScript?

- Ans**
- ☒ 1. event.preventDefault()
 - ☐ 2. form.submit()
 - ☐ 3. return false;
 - ☐ 4. event.stopPropagation()

Q.5 Which phase of the design and analysis process involves selecting an efficient data structure?

- Ans**
- ☐ 1. Implementation
 - ☐ 2. Problem definition
 - ☐ 3. Algorithm analysis
 - ☒ 4. Algorithm design

Q.6 The matrix A consists of m rows and n columns. The matrix A is known as Sparse matrix if the:

- Ans**
- ☐ 1. total number of zero element in the matrix A $< m + n$.
 - ☒ 2. total number of zero element in the matrix A $> m * n / 2$.
 - ☐ 3. total number of zero element in the matrix A $< m - n$.
 - ☐ 4. total number of zero element in the matrix A $> m * n$.

Q.7 If the recursive approach of linear search is used to search a key in a linked list of **n** elements, then what are the time and space complexity to search an element in a linked list?

- Ans**
- ☐ 1. Time Complexity = $O(n)$, Space Complexity= $O(1)$
 - ☐ 2. Time Complexity = $O(1)$, Space Complexity= $O(1)$
 - ☒ 3. Time Complexity = $O(n)$, Space Complexity= $O(n)$
 - ☐ 4. Time Complexity = $O(1)$, Space Complexity= $O(n)$

Q.8 Suppose there are **n** elements in an array **A[]**. If we want to insert a new element at position **i** in array **A[]**, $1 \leq i \leq n$, causing elements numbered **i, i + 1, n** to become numbered:

- Ans**
- ☐ 1. **i - 1, i, i + 1, i + 2, i + 3,, n + 1**
 - ☐ 2. **i - 1, i + 1, i + 2, i + 3,, n + 1**
 - ☒ 3. **i + 1, i + 2, i + 3,, n + 1**
 - ☐ 4. **i + 2, i + 3,, n + 1**

Q.9 What is the purpose of a web browser's developer tools?

- Ans**
- ☐ 1. To host web pages on the web server
 - ☒ 2. To inspect and debug web pages
 - ☐ 3. To increase the internet speed
 - ☐ 4. To install new web browsers

Q.10 Which of the following library file functions in C program is/are correct?

fwrite()- This function is used for writing an entire block to a given file.
fseek()- This function is used for setting the file position pointer at the specified byte.
ftell()- This function is used to move the file position pointer to the beginning of the file.

- Ans**
- ☐ 1. fseek(), ftell()
 - ☐ 2. fwrite(), ftell()
 - ☐ 3. fwrite(), fseek(), ftell()
 - ☒ 4. fwrite(), fseek()

Q.11 In HTML, which tag is used to create an ordered list?

- Ans**
- ☐ 1.
 - ☒ 2.
 - ☐ 3. <list>
 - ☐ 4.

Q.12 What is the maximum number of swaps that can be performed in the Selection Sort algorithm?

- Ans
- ☐ 1. n
 - ☒ 2. n - 1
 - ☐ 3. 1
 - ☐ 4. n - 2

Q.13 What is the primary function of the World Wide Web (WWW)?

- Ans
- ☐ 1. To create mobile applications
 - ☐ 2. To provide cloud storage services
 - ☒ 3. To connect and access documents and resources over the internet
 - ☐ 4. To store large databases

Q.14 What is the primary function of a scanner in digital imaging?

- Ans
- ☐ 1. Change the image resolution
 - ☐ 2. Convert videos to still images
 - ☐ 3. Enhance image quality
 - ☒ 4. Convert printed images into digital format

Q.15 Consider the pseudocode of the function given below.

```
abc(int n)
{
  int i, j, k = 0;
  for (i = n/2; i <= n; i++)
    for (j = 2; j <= n; j = j * 2)
      k = k + n/2;
  return k;
}
```

what will the time complexity of the function abc() be?

- Ans
- ☐ 1. $O(n)$
 - ☒ 2. $O(n \log n)$
 - ☐ 3. $O(n^2)$
 - ☐ 4. $O(\log n)$

Q.16 Which file format supports transparency in images?

- Ans
- ☐ 1. JPG
 - ☐ 2. BMP
 - ☐ 3. TIFF
 - ☒ 4. PNG

Q.17 What is the output of the following JavaScript code?

```
const obj = { name: "Alice" };
Object.defineProperty(obj, "age",
{
  value: 25,
  writable: false
});
obj.age = 30;
console.log(obj.age);
```

- Ans
- ☐ 1. undefined
 - ☒ 2. 25
 - ☐ 3. Error: Cannot modify property
 - ☐ 4. 30

Q.18 Consider the expression given below:
$$x = a + b * (c - d) / e + f \% g;$$

The variables have the following values:

$a = 8, b = 5, c = 10, d = 3, e = 2, f = 7, g = 3;$

If the variables x, a, b, c, d, e, f, g are of integer data type, then what will be the value of x after evaluating the above expression?

- Ans
- ☐ 1. 20
 - ☒ 2. 26
 - ☐ 3. 21
 - ☐ 4. 24

Q.19 A sorting algorithm in which the two or more elements with equal key values appear in the same order in sorted output as they appear in the input data set is known as a/an:

- Ans
- ☒ 1. stable sorting algorithm
 - ☐ 2. unstable sorting algorithm
 - ☐ 3. internal sorting algorithm
 - ☐ 4. external sorting algorithm

Q.20 Which of the following is used to include JavaScript code within an HTML document?

- Ans
- ☐ 1. <javascript>
 - ☐ 2. <js>
 - ☒ 3. <script>
 - ☐ 4. <java>

Section : Discipline4

Q.1 The order and degree of the differential equation $\left(1 + \frac{dy}{dx} + \cos\left(\frac{d^2y}{dx^2}\right)\right)^{\frac{3}{4}} = \frac{d^3y}{dx^3}$ is _____.

- Ans
- ☒ 1. 3 and 4
 - ☐ 2. 4 and 3
 - ☐ 3. 3 and 3
 - ☐ 4. 3 and 1

Q.2 What is the primary advantage of a doubly linked list over a singly linked list?

- Ans
- ☒ 1. It allows traversal in both directions.
 - ☐ 2. It uses less memory.
 - ☐ 3. It has faster insertion and deletion operations.
 - ☐ 4. It is easier to implement.

Q.3 Which of the following is an example of an 8-bit microprocessor?

- Ans
- ☐ 1. Intel 8086
 - ☐ 2. Intel 80386
 - ☒ 3. Intel 8085
 - ☐ 4. Motorola 68000

Q.4 What will be the output of the following C code?

```
#include <stdio.h>
void main() {
printf("%d", printf("Tata Consultancy"));
}
```

- Ans
- ☐ 1. Tata Consultancy
 - ☐ 2. 15Tata Consultancy
 - ☐ 3. Tata Consultancy15
 - ☒ 4. Tata Consultancy16

Q.5 Given the following information of ABC Ltd. for the financial year 2024-25, calculate the total amount of credit sales for the year 2024-25.

Opening Balance of Sundry Debtors	50,000.00
Closing Balance of Sundry Debtors	60,000.00
Cash Collected from Debtors	6,00,000.00
Discount allowed to Debtors	10,000.00

- Ans**
- ☐ 1. ₹6,10,000.00
 - ☐ 2. ₹5,80,000.00
 - ☐ 3. ₹6,00,000.00
 - ☒ 4. ₹6,20,000.00

Q.6 Which of the options is the solution of system of linear equation $5x + y + 3z = 20$, $2x + 5y + 2z = 18$, $3x + 2y + z = 14$?

- Ans**
- ☐ 1. $x=1, y=2, z=3$
 - ☐ 2. $x=2, y=1, z=3$
 - ☒ 3. $x=3, y=2, z=1$
 - ☐ 4. $x=2, y=3, z=1$

Q.7 If the compiler of the programming language occupies 2-byte memory space for an unsigned integer, then what is the range of the unsigned integer?

- Ans**
- ☐ 1. 0 to 65536
 - ☐ 2. 0 to 32767
 - ☐ 3. -32768 to 32767
 - ☒ 4. 0 to 65535

Q.8 Which of the following address lines are typically used for decoding in a system with 16 KB of memory?

- Ans**
- ☐ 1. A0–A3
 - ☒ 2. A0–A13
 - ☐ 3. A0–A7
 - ☐ 4. A0–A10

Q.9 Which financial ratio measures a company's ability to cover its short-term liabilities with its short-term assets?

- Ans**
- ☐ 1. Net Profit Margin
 - ☐ 2. Debt-to-Equity Ratio
 - ☐ 3. Return on Equity
 - ☒ 4. Current Ratio

Q.10 Which of the following is typically stored in control memory?

- Ans**
- ☐ 1. System-level instructions
 - ☐ 2. User programs
 - ☐ 3. Data for arithmetic operations
 - ☒ 4. Microprograms and microinstructions

Q.11 Which of the following options is the particular integral of the differential equation

$$\frac{d^2y}{dx^2} - 4y = \sinh t ?$$

- Ans**
- ☐ 1. $-\sin ht$
 - ☐ 2. $\sin ht$
 - ☒ 3. $\frac{-\sin ht}{3}$
 - ☐ 4. $\frac{\sin ht}{3}$

Q.12

If $\begin{bmatrix} 1 \\ 1 \\ 0 \end{bmatrix}$ is an eigenvector of the matrix $\begin{bmatrix} 3 & -1 & 1 \\ 7 & -5 & 1 \\ 6 & -6 & 2 \end{bmatrix}$, then the eigenvalue corresponding to the eigenvector is _____.

Ans

- ☒ 1. 4
- ☒ 2. -4
- ☒ 3. 1
- ☒ 4. 2

Q.13 Which of the following options is an example of skew symmetric matrix?

Ans

- ☒ 1. $\begin{bmatrix} 3 & 1 & 2 \\ -1 & 5 & -4 \\ 2 & 4 & 7 \end{bmatrix}$
- ☒ 2. $\begin{bmatrix} 0 & 1 & 2 \\ -1 & 0 & -4 \\ -2 & 4 & 0 \end{bmatrix}$
- ☒ 3. $\begin{bmatrix} 3 & 1 & 2 \\ 1 & 0 & 4 \\ 2 & 4 & 1 \end{bmatrix}$
- ☒ 4. $\begin{bmatrix} 0 & 1 & -2 \\ -1 & 0 & 4 \\ 2 & 4 & 8 \end{bmatrix}$

Q.14 _____ are sources of _____, which are used for aircraft navigation.

Ans

- ☒ 1. Magnetrons ; infrared rays
- ☒ 2. Gunn diodes ; microwaves
- ☒ 3. Conducting wires ; microwaves
- ☒ 4. Gunn diodes ; ultraviolet-visible rays

Q.15 Which of the following is NOT an assembler directive?

Ans

- ☒ 1. MOV
- ☒ 2. ORG
- ☒ 3. END
- ☒ 4. DB

Q.16 Study the given table and calculate the total Trial Balance amount.

Particulars	Amount (₹)
-------------	------------

Cash	54,750.00
------	-----------

Capital	60,000.00
---------	-----------

Purchases	62,000.00
-----------	-----------

Sales	42,250.00
-------	-----------

Sales return	1,600.00
--------------	----------

Purchase returns	1,300.00
------------------	----------

Mr. X (Creditor)	39,800.00
------------------	-----------

Mr.Y (Debtor)	21,500.00
---------------	-----------

Mr. Z (Creditor)	4,000.00
------------------	----------

Furniture	3,000.00
-----------	----------

Wages and Salaries	5,200.00
--------------------	----------

Commission received	700.00
---------------------	--------

Ans  1. ₹1,48,050

 2. ₹1,15,070

 3. ₹1,51,050

 4. ₹1,25,000

Q.17 Which function is used in C to open a file in binary mode for writing?

Ans  1. fopen("file.txt", "b")

 2. fopen("file.txt", "wb")

 3. fopen("file.txt", "bw")

 4. fopen("file.txt", "binary")

Q.18 Which of the following is NOT a keyword in C?

Ans  1. signed

 2. variable

 3. auto

 4. sizeof

Q.19 The Earth is warm because it absorbs the Sun's radiation and then reemits it as _____.

Ans  1. visible light

 2. infrared radiation

 3. ultraviolet-visible radiation

 4. radio waves

Q.20 On 31st May 2024, the cash balance of AQ Ltd. is ₹5,50,000. The cash receipts and cash payments during the month of June 2024 aggregated to ₹5,25,000 and ₹4,50,000, respectively. The rent and salaries yet to be paid amounted to ₹25,000 and ₹36,000, respectively. Calculate the amount of cash balance as on 30th June 2024 in the books of AQ Ltd.

Ans  1. ₹6,86,000

 2. ₹4,75,000

 3. ₹6,25,000

 4. ₹5,64,000

Section : **Discipline5**

Q.1 What does the Price-to-Earnings (P/E) ratio indicate in business evaluation?

Ans  1. The company's liquidity position

 2. How much investors are willing to pay for each rupee of earnings

 3. The efficiency of asset utilization

 4. The company's total debt obligations

Q.2 What is internet etiquette commonly referred to as?

- Ans**
- ☐ 1. Web manners
 - ☒ 2. Netiquette
 - ☐ 3. Digital conduct
 - ☐ 4. Cyber ethics

Q.3 Which of the following is a privacy concern with Instant Messaging (IM) applications?

- Ans**
- ☒ 1. Data security
 - ☐ 2. Better user interface
 - ☐ 3. Unlimited messaging
 - ☐ 4. Free video calls

Q.4 What is a key difference between system software and application software?

- Ans**
- ☐ 1. System software is optional for computer operation, while application software is mandatory.
 - ☐ 2. System software includes programs like web browsers, while application software includes operating systems.
 - ☒ 3. System software operates the computer hardware, whereas application software is designed to perform specific user-oriented tasks.
 - ☐ 4. System software is designed for end-users, while application software is designed for system administrators only.

Q.5 Which of the following is NOT true about a Histogram?

- Ans**
- ☐ 1. It consists of a set of rectangles.
 - ☐ 2. These rectangles represent the range of the data
 - ☒ 3. Rectangles have bases on vertical axis.
 - ☐ 4. Areas of the rectangles are proportional to class frequencies

Q.6 What is the main difference between system software and application software?

- Ans**
- ☒ 1. System software manages computer hardware, while application software helps users perform specific tasks.
 - ☐ 2. System software is always free, but application software is paid.
 - ☐ 3. Application software is only for mobile phones, and system software is only for computers.
 - ☐ 4. Application software controls the hardware, and system software is used for games.

Q.7 Type I error is committed when:

- Ans**
- ☐ 1. A true null hypothesis is accepted
 - ☐ 2. A false null hypothesis is rejected
 - ☒ 3. A true null hypothesis is rejected
 - ☐ 4. A false null hypothesis is accepted

Q.8 Which part of the CPU is responsible for performing calculations and logical operations?

- Ans**
- ☐ 1. Memory Unit
 - ☒ 2. Arithmetic Logic Unit (ALU)
 - ☐ 3. Control Unit (CU)
 - ☐ 4. Input Device

Q.9 What is the primary purpose of using smileys in instant messaging?

- Ans**
- ☐ 1. To increase font size
 - ☐ 2. To insert hyperlinks
 - ☒ 3. To represent emotions and feelings
 - ☐ 4. To convey formal tone

Q.10 Which of the following business structures offers the easiest and least expensive setup process in India?

- Ans**
- ☒ 1. Sole Proprietorship
 - ☐ 2. Public Limited Company
 - ☐ 3. Private Limited Company
 - ☐ 4. Limited Liability Partnership

Q.1 Which of the following minimally influences individual differences in personality?

- Ans**
- ☒ 1. School infrastructure
 - ☐ 2. Socioeconomic status
 - ☐ 3. Genetic predisposition
 - ☐ 4. Parenting style

Q.2 Which programme suggested textbook revision and gender sensitisation of educational staff?

- Ans**
- ☐ 1. National Education Mission
 - ☒ 2. Programme of Action (POA) under NPE
 - ☐ 3. National Digital Literacy Mission
 - ☐ 4. Sarva Shiksha Abhiyan

Q.3 Which of the following is a type of experience where a sudden, flash-like conviction of certainty strikes us?

- Ans**
- ☐ 1. Illusion
 - ☐ 2. Hallucination
 - ☒ 3. Intuition
 - ☐ 4. Imagination

Q.4 Which of the following is the primary benefit of classroom role-play?

- Ans**
- ☒ 1. Real-life problem solving
 - ☐ 2. Timing practice
 - ☐ 3. Memorisation
 - ☐ 4. Script learning only

Q.5 Which of the following best exemplifies the 'Integrated' principle in curriculum development for children with mental retardation?

- Ans**
- ☒ 1. Organising activities that combine language, art, and daily living skills
 - ☐ 2. Preparing students for competitive exams
 - ☐ 3. Emphasising rote memorisation of isolated facts
 - ☐ 4. Teaching mathematical operations in isolation without real-life application

Q.6 Which of the following is an adaptation useful for students with low vision?

- Ans**
- ☐ 1. Braille slates
 - ☐ 2. Blindfolds
 - ☐ 3. Small font sizes
 - ☒ 4. Magnifiers

Q.7 'Language across curriculum' aims to strengthen which skills?

- Ans**
- ☐ 1. Translation of textbooks into regional languages
 - ☐ 2. Teaching language as a separate subject
 - ☒ 3. Reading, writing, listening and speaking across subjects
 - ☐ 4. Only speaking and listening

Q.8 What element directly follows lesson objectives in most plans?

- Ans**
- ☐ 1. School policies
 - ☐ 2. Classroom layout
 - ☒ 3. Teaching procedures
 - ☐ 4. Student demographics

Q.9 Why is it important to state objectives in terms of pupils' expected behavioural outcomes?

- Ans**
-  1. To highlight textbook content
 -  2. To focus on teacher performance
 -  3. To clearly define the change in student behaviour due to learning
 -  4. To make lesson plans lengthy

Q.10 Which of the following best illustrates the difference between assessment and evaluation?

- Ans**
-  1. Assessment is informal; evaluation is always formal.
 -  2. Assessment provides data; evaluation interprets it to judge learning outcomes.
 -  3. Assessment is grading; evaluation is ranking.
 -  4. Assessment is assigning numbers; evaluation is comparing scores.