IMPORTANT INSTRUCTIONS

- The maximum marks are 300. Time allotted is **90 MINUTES.**
- There are five sections in the question paper having total **75 questions:**
  - Section – A : Maths (20 Questions)
  - Section – B : Science (20 Questions)
  - Section – C : English (15 Questions)
  - Section – D : Aptitude (10 Questions)
  - Section – E : General Knowledge (10 Questions)
- Each question carries **4 marks.**
- **Negative Marking : ¼ (One-fourth) mark** will be deducted for every incorrect answer.
- **Use only BLUE / BLACK ball pen to fill the circles in bubble sheet.**
- Use of PENCIL is strictly **not allowed.**
- **Use of marker and correction pen is strictly prohibited.**

SECTION – A
MATHS

Choose the correct option.

1) Priya throw two disc 11 times simultaneously and noted the sum of outcomes of dice. 11, 10, 8, 2, 10, 3, 12, 10, 12, 4, 6. Find the mean, median and mode of the given data respectively.

a) 10, 9 and 8 b) 9, 8 and 10

c) 9, 9 and 10 d) 8, 10 and 10

2) Study the following statements carefully and select the correct option.

P : If $3(x+3)-2(x-1)=5(x-5)$, then $x=9$

Q : $\frac{y}{2}+\frac{3}{2}=\frac{2y}{5}+1$, then $y=5$.

a) Both P and Q are true b) Both P and Q are false

c) P is true but Q is false d) P is false but Q is true

3) The value of a^b-b^a, if $a=3$ and $b=7$ is _____.

a) 1825 b) 1840

c) 1844 d) 1850

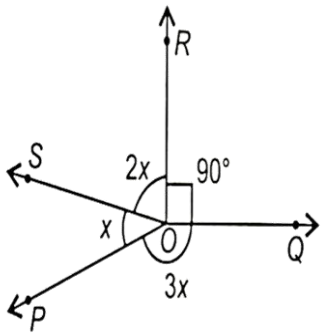
4) A square has _____ lines of symmetry.

a) one b) two

c) three d) four

5) In the given figure (not drawn to scale), find the value of x.

a) 45°
b) 35°
c) 50°
d) 65°



6) Find the value of P, Q and R.

A) A circular pond is surrounded by a 2 m wide circular path. If outer circumference of circular path is 44 m, then the area of the path is **P.**

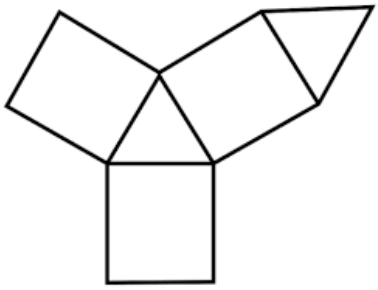
B) A rectangle and a parallelogram have equal areas. If the side of a rectangle are 15 m and 12 m and the base of the parallelogram is 30m, then the altitude of the parallelogram is **Q** (in m).

C) The minute hand of a circular clock is 15 cm long. The tip of the minute hand move **R** cm in 1 hour. (Take π = 3.14).

	P	**Q**	**R**
a)	62.88 m^2	7	100
b)	75.43 m^2	6	94.2
c)	42.87 m^2	7	44.5
d)	18.14 m^2	6	79.4

7) Name the polyhedron that can be formed by folding the given net.

a) Square pyramid
b) Triangular prism
c) Tetrahedron
d) Cube



8) If 20% of $x = y$, then y% of 20 is same as _____.

a) $\frac{x}{25}$ b) x
c) $\frac{x}{2}$ d) None of these

9) If 6 is added to five times of a number, then it becomes the same as 9 is subtracted from eight times of the same number. Which of the following equations would you use to find the number?

a) $6x + 5 = 8x + 9$ b) $5x + 6 = 8x - 9$
c) $6 = 5x = 9 - 8x$ d) $6x + 5 = 8x - 9$

10) Read the statements carefully. State (T) for true and (F) for false and select the correct option.

P) $\frac{-16}{20}$ *and* $\frac{20}{-25}$ are equivalent rational numbers.

Q) All fractions are rational numbers.

R) $\frac{11}{24}$ must be added to $\frac{-5}{12}$ *to get* $\frac{-7}{8}$

S) The value of $\left(\frac{-7}{21} \times \frac{-3}{14}\right) - \left(\frac{-4}{15} \times \frac{5}{14}\right)$ is $\frac{1}{6}$.

	P)	Q)	R)	S)
a)	T	F	F	T
b)	T	T	F	T
c)	F	T	F	F
d)	T	T	F	F

11) State 'T' for true and 'F' for false.

P) If x and y are non- zero rational numbers and m is a positive integer, then $x^m \times y^m = (xy)^{2m}$ and $x^m \div y^m = \frac{x}{y}$

Q) Standard form of 38000000 is 3.8×10^7.

R) The base and power in $(-16 \times 2)^4$ is -32 and 4 respectively.

S) 6^2 is greater than 2^6.

	P)	Q)	R)	S)
a)	T	F	F	T
b)	F	T	T	F
c)	F	T	F	T
d)	T	F	T	F

12) Study the following statements and fill in the blanks.

The line segments of a solid shape are called its P

The corners of a solid shape are called its Q

	P)	Q)
a)	Edges	Faces
b)	Vertices	Edges
c)	Edges	Vertices
d)	Faces	Vertices

13) The product of two fractions is $\frac{9}{11}$. If one of the fractions is $\frac{3}{5}$, then find the other fraction.

a) $\frac{33}{45}$ b) $\frac{15}{11}$

c) $\frac{11}{15}$ d) $\frac{32}{17}$

14) The average weight of 10 students of class 7 is 36 kg. If the average weight of 8 of them is 34 kg, then find the sum of weights of remaining two students.

a) 88 kg b) 45 kg

c) 70 kg d) None of these

15) Match the following and select the correct option.

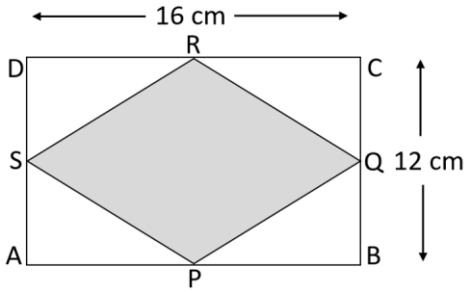
	Column – I		Column - II
P)	Coefficient of x^2 in $(5x^3 - x^2 + 3)$ is	A)	−1
Q)	At y = 3, the value of $(-3y^2 - y + 38)$ is	B)	2
R)	Number of terms in (3ab + 1) is	C)	1
S)	The value of $(r - s)^3$ at r = −2 and s = −3 is	D)	8

a) P)–C), Q)–D), R)–B), S)–A) b) P)–A), Q)–D), R)–B), S)–C)

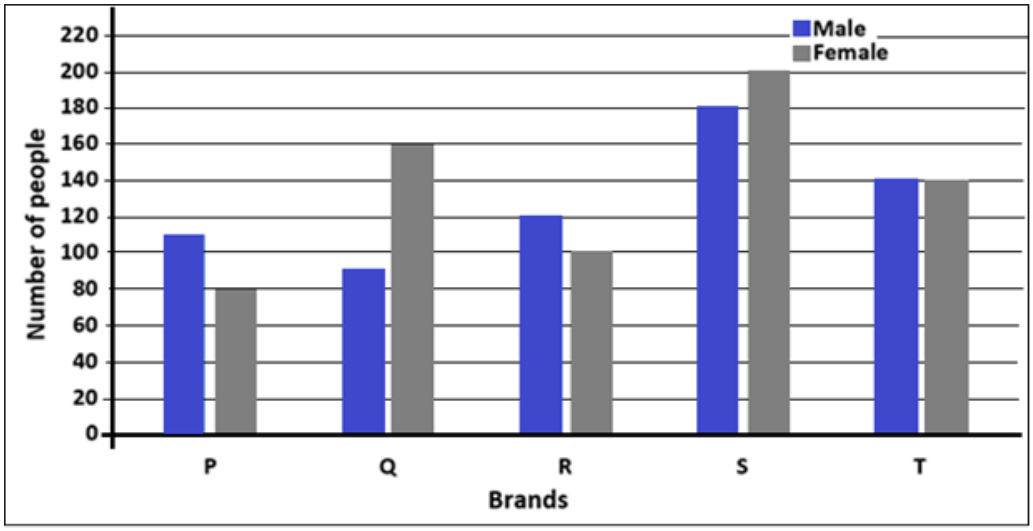
c) P)–A), Q)–B), R)–D), S)–C) d) P)–A), Q)–B), R)–D), S) –C)

16) Read the statements carefully and select the correct option according to the given figure where ABCD is a rectangle and P, Q, R and S are mid points of the sides of the rectangle.
Statement – I : Perimeter of the shaded region is 28 cm.
Statement – II : The area of the shaded region is 96 cm^2.

a) Both statement – I and statement – II are true.
b) Both statement – I and statement – II are false.
c) Statement – I is true but statement – II is false.
d) Statement – I is false but statement – II is true.



Direction (17-18) : The given double bar graph shows the number of people who like five different brands. Study the graph carefully and answer the following questions.



17) What percent of total males like brands R and T together?

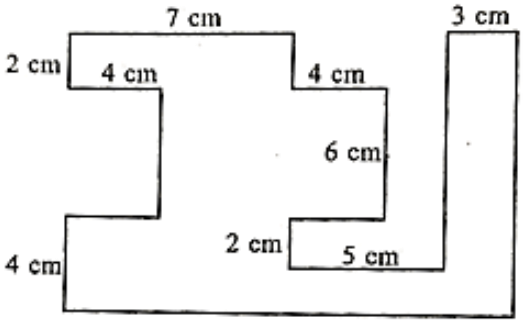
a) $45\frac{2}{3}\%$
b) $40\frac{5}{8}\%$
c) $31\frac{1}{3}\%$
d) None of these

18) Find the ratio of number of males who like brands P and Q together to the number of females who like brands S and T together.

a) 5 : 12
b) 17 : 10
c) 10 : 17
d) 12 : 5

19) Find the perimeter of the given figure

a) 85 cm
b) 92 cm
c) 88 cm
d) 90 cm



20) Fill in the blanks and select the correct option.

A) Find the value of m, if $\left(\frac{8}{27}\right)^{m-1} \times \left(\frac{9}{4}\right)^{m} = \frac{2}{3}$

B) The standard form of 5820000000 is _____.

C) If $9^{x-4} = 729$ then $10x =$ _____

	A)	B)	C)
a)	2	5.82×10^9	7
b)	3	58.2×10^8	7
c)	4	5.82×10^9	70
d)	5	58.2×10^8	17

SECTION – B
SCIENCE

21) Water expands when it freezes, causing pipelines to burst in cold countries. What property of water molecules creates this effect?

a) Surface tension
b) Arrangement of hydrogen bonds
c) Decrease in density
d) Increase in viscosity

22) A fast-moving space shuttle experiences less air resistance at high altitude. Which property of the atmosphere is responsible?

a) Reduced oxygen content
b) Reduced air pressure
c) Increased temperature
d) Increased humidity

23) An electric bulb rated at 40W, 220V is connected in a parallel circuit. What current flows through it?

a) 0.18 A
b) 5.5 A
c) 1.28 A
d) 0.45 A

24) Marking on an electric kettle is 600 W, 220 V. What does it signify?

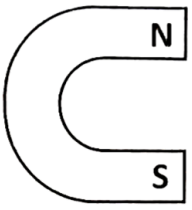
a) When 220 V is applied across the kettle, 600 units of current flow in it.
b) When 600 W is applied across the kettle, 220 units of current flow in it.
c) When 220 V is applied across the kettle, 600 joules of energy are consumed every second.
d) When 600 V is applied across the kettle, 220 joules of energy are consumed every second.

25) An ungraduated thermometer is fixed onto a meter scale. Its mercury column lies at 8.0 cm for the ice point and at 23.0 cm for the steam point. The temperature of a mixture is measured using this thermometer. If the length of the mercury column is 10.5 cm above the ice point, what is the approximate temperature of the mixture?

a) 45°C
b) 60°C
c) 70°C
d) 85°C

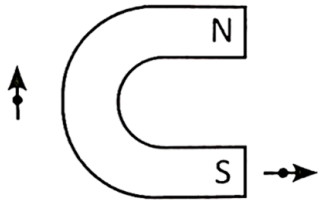
26) Anisha places a U-shape magnet on a horizontal surface. She then places two compasses next to it as shown in the given figure

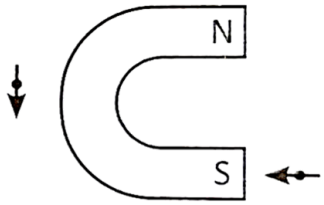
Compass 1 ○

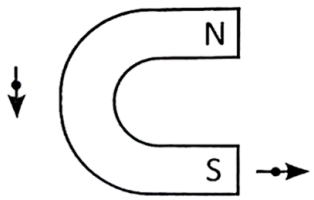


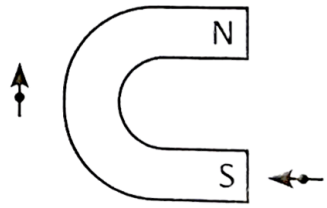
○ Compass 2

In which directions will the compasses point?

a) 

b) 

c) 

d) 

27) Match the following quantities with their units:

	Column – I		Column - II
P)	Velocity	I)	metres/second
Q)	Acceleration	II)	seconds
R)	Distance	III)	metres
S)	Time	IV)	metres/second^2

a) P) – I), Q) – IV), R) – III), S) – II) b) P) – II), Q) – III), R) – I), S) – IV)
c) P) –III), Q) – II), R) – I), S) –IV) d) P) –IV), Q) – I), R) – II), S) – III)

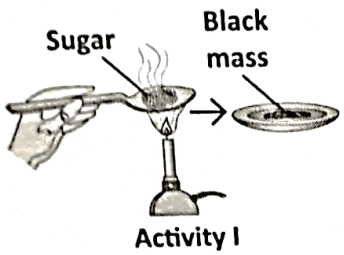
28) Heating copper sulfate crystals strongly turns them from blue to white. This is because:
a) They lose water of crystallization b) They react with air
c) A new substance is formed d) They melt into liquid form

29) In a lab, a student heats hydrated copper (II) sulfate crystals in a closed container. After some time, water droplets appear on the cooler sides. This demonstrates:
a) Sublimation and condensation b) Decomposition and precipitation
c) Evaporation and condensation d) Precipitation and crystallization

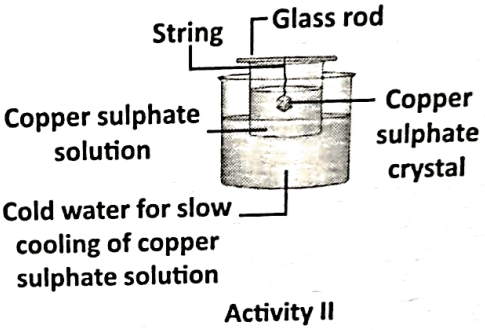
30) Which gas is responsible for the greenish tint observed in the flame test of copper compounds?
a) Hydrogen b) Carbon dioxide
c) Copper vapor d) Oxygen

31) A student touched the leaf of a Mimosa pudica (touch-me-not) and it folded immediately. This response is –
a) Phototropic movement b) Chemotropic movement
c) Nastic movement d) Growth-dependent movement

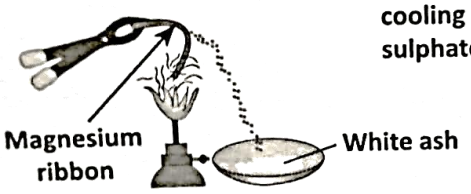
32) Observe the activities shown below and answer the questions by selecting the correct option for each blank.



Activity I



Activity II



Activity III

Fill in the blanks:

- The black mass obtained in Activity I is called ___(p)___.
- Activity II involves a ___(q)___ change.
- Activity III is an example of a ___(r)___ reaction, and the white ash produced is ___(s)___.
- When dissolved in water, this ash changes ___(t)___ litmus to ___(u)___

	(p)	(q)	(r)	(s)	(t)	(u)
a)	Charcoal	Physical	Combination	Magnesium oxide	Blue	Red
b)	Coke	Chemical	Decomposition	Magnesium hydroxide	Red	Blue
c)	Coal	Chemical	Combination	Magnesium hydroxide	Blue	Red
d)	Carbon	Chemical	Displacement	Magnesium oxide	Red.	Blue

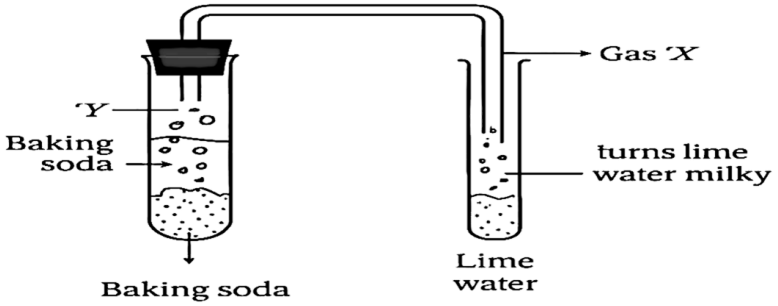
33) Four different substances are described below:

- W: Appears colorless in acidic conditions
- X: Predominant ingredient in vitamin C
- Y: Utilized in batteries for lead storage
- Z: Responsible for the tangy flavor in tamarind

Which set of substances matches W, X, Y, and Z?

a) Phenolphthalein | Citric acid | Hydrochloric acid | Ascorbic acid
b) Methyl orange | Citric acid | Sulphuric acid | Tartaric acid
c) Methyl orange | Ascorbic acid | Hydrochloric acid | Citric acid
d) Phenolphthalein | Ascorbic acid | Sulphuric acid | Tartaric acid

34) Observe the following figure carefully and select the incorrect statements.



i) Substance Y should be an acid such as acetic acid.
ii) Gas X is hydrogen, which makes lime water turn milky.
iii) Lime water turns milky due to the formation of calcium hydrogen carbonate, which is insoluble in water.
iv) The change is only physical because there is no new substance formed, only a change in colour and state.

a) i) and iii) only
b) iii) and iv) only
c) ii), iii) and iv) only
d) i) and ii) only

35) Hitesh has classified some common items based on their properties, as shown in the table below:

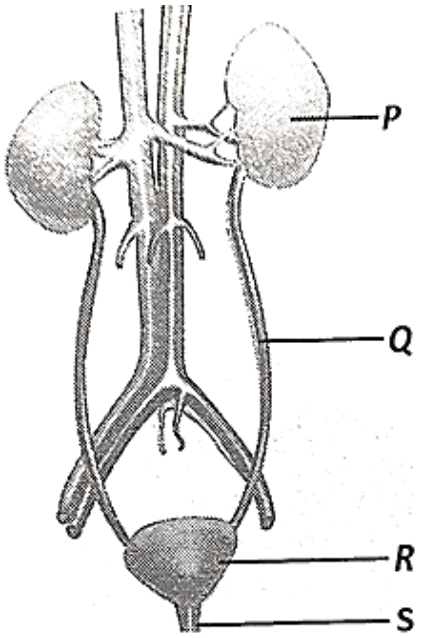
S. No.	Item	Compressible	Opaque	Hard	Sinks in Water
i)	Steel spoon	✗	✓	✓	✓
ii)	Cotton ball	✗	✓	✓	✗
iii)	Glass jar	✗	✗	✓	✓
iv)	Thermocol	✓	✗	✗	✓
v)	Wooden block	✗	✓	✓	✓

Which of the given items are not correctly classified?

a) i), iii) only
b) i), iv) only
c) ii), iv), v) only
d) ii), iii), iv) only

36) Study the diagram carefully showing parts of the human excretory system labelled P, Q, R, and S. Answer based on the given information:

i) P is situated in the abdomen just below the diaphragm.
ii) In humans, P and R consist of numerous tiny filtering structures called nephrons.
iii) Q is a thin muscular tube that carries urine from P to R.
iv) A network of capillaries inside R removes excess water and salts from blood.
v) S is present in the pelvic region and acts as a temporary storage bag for urine.



Which of the following sets of statements are correct?

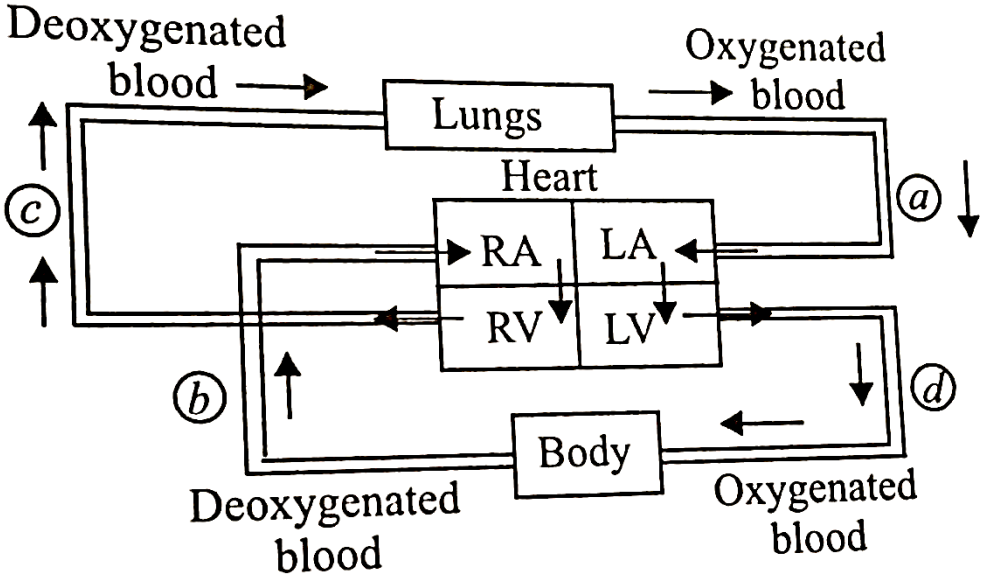
a) i), ii), iii) and iv)
b) i), ii), iv) and v)
c) ii), iii), iv) and v)
d) i) and iii) only

37) A farmer grows leguminous plants in one of his fields. After harvest, instead of removing the roots, he ploughs them back into the soil.

This practice mainly helps in-

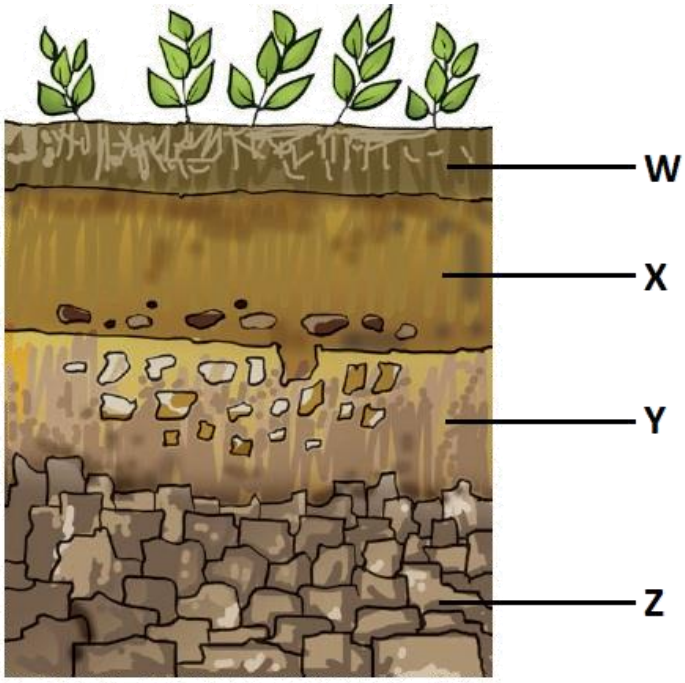
a) Increasing the water- holding capacity of soil
b) Fixation of atmospheric nitrogen to enrich soil fertility
c) Providing more oxygen in the soil
d) Preventing soil erosion

38) The diagram shows the human pulmonary and systemic circulation. The blood vessels are marked as a, b, c, and d. Identify them correctly and choose the right option.



a) a – Pulmonary artery, b – Pulmonary vein, c – Aorta, d – Vena cava
b) a – Pulmonary vein, b – Vena cava, c – Pulmonary artery, d – Aorta
c) a – Pulmonary vein, b – Aorta, c – Vena cava, d – Pulmonary artery
d) a – Aorta, b – Vena cava, c – Pulmonary artery, d – Pulmonary vein

39) Study the given soil profile with layers W, X, Y, and Z. Select the correct description of these layers.



a) W – Contains high amount of humus
b) X – Contains more humus but fewer minerals
c) Y – Provides habitat for soil organisms such as insects and worms, but lacks water
d) Z – The layer where most plant roots extend and spread

40) Choose the set of plants in which all flowers are complete (having sepals, petals, stamens, and carpels).

a) Date Palm, Gulmohar, Mulberry
b) Mulberry, Papaya, Pea
c) Pea, Rose, Papaya
d) Petunia, Hibiscus, Mustard

SECTION – C
ENGLISH

Read the text and answer the questions that follow.

In the contemporary digital landscape, personal data has acquired an economic significance comparable to traditional commodities such as oil or gold. What differentiates data from physical resources, however, is its regenerative nature: every human interaction with technology produces more of it. Corporations and governments increasingly employ sophisticated algorithms capable of transforming these seemingly mundane traces of human behavior—web searches, facial expressions captured by cameras, location histories stored silently in mobile devices—into predictive models of astonishing accuracy. These models can determine not only what a person might purchase, but also which news headlines are most likely to confirm their anxieties, what political message may evoke agreement, and which emotional vulnerabilities might be exploited for commercial outcomes.

Proponents argue that such personalization enhances efficiency and consumer satisfaction. They claim that, in an age overflowing with information, algorithmic filtering is not only beneficial but necessary for navigating the digital world without drowning in constant choice. However, critics point out that the very mechanisms which streamline decision-

making can also compromise cognitive independence. When individuals are continually nudged toward certain choices, their beliefs and preferences may gradually cease to be self-generated; they become the product of invisible computational biases designed to optimize engagement rather than autonomy.

Even more troubling is the fact that these algorithms learn from datasets embedded with historical inequalities. If past data reflects racial, gender-based, or socioeconomic biases, the resulting predictions inevitably reinforce those patterns—often under the guise of objective computation. Thus, the debate concerning data privacy and algorithmic governance is not merely technical or economic; it is fundamentally philosophical. It raises questions about the nature of freedom itself: If one's decisions are shaped by unseen forces, can they still be called *one's own*?

41) Which statement best captures the primary concern raised in the passage?
   a) Technology is making human memory weaker.
   b) Personal data is becoming scarce and difficult to collect.
   c) Predictive algorithms may gradually erode individual freedom of choice.
   d) Personalized services always improve user satisfaction.

42) The passage implies that personalization becomes problematic when it:
   a) offers consumers too many options.
   b) disguises external influence as self-determined preference.
   c) makes online shopping more efficient.
   d) eliminates exposure to advertisements.

43) The author describes algorithms as "regenerative" primarily to emphasize that:
   a) data must be physically mined like natural resources.
   b) digital information constantly expands through everyday actions.
   c) personal data is limited and easily depleted.
   d) algorithms require no human input to function.

44) What tone best reflects the author's stance?
   a) Gently optimistic with minor concerns
   b) Neutral and purely descriptive
   c) Critical, reflective, and intellectually cautious
   d) Mocking and dismissive

45) In the final line, the question *"If one's decisions are shaped by unseen forces, can they still be called one's own?"* suggests that the debate is ultimately about:
   a) Financial efficiency
   b) Technological convenience
   c) Philosophical autonomy
   d) Hardware development

WORD AND STRUCTURE KNOWLEDGE

46) Choose the part of the sentence that has an error.
He is very fast in spite of being overweight.
   a) He is very fast
   b) In spite being
   c) overweight
   d) No error

47) Choose the correct synonym of the given word "invalid".
   a) Whole
   b) Accurate
   c) Misleading
   d) Exact

48) Choose the correct word/phrase to complete the sentence.
The scientist's theory was dismissed initially, but later it was _____ as groundbreaking.

a) revoked
b) renowned
c) validated
d) Dissolved

49) Choose the correct option to fill in the blank.
Passive : Fifty dollars were lent to me by Christopher.
Active : _____.

a) Christopher lent me fifty dollars.
b) Christopher will impart me fifty dollars.
c) Christopher rented me fifty dollars.
d) Christopher volunteered me fifty dollars.

Question 50) and 51) Choose the correct option to fill in the blanks.

50) The lawyer's argument was dismissed because it was based on weak assumptions; it failed to hold _____ under scrutiny.

a) authority
b) water
c) rank
d) Space

51) Charles Dickens is _____ famous novelist and _____ essayist.

a) The, the
b) A, no article
c) a, an
d) no article, no article

52) Choose the option with correct spelling

a) Parsely
b) Casva
c) Perillia
d) Scallion

53) Read the words given here and choose the option which expresses the meaning of the idiom/phrase.
'At one's wit's end' means

a) To be puzzled
b) To seize opportunity
c) To give up
d) To be highly impressed

54) In the following question, the sentence has been given in active voice. From the given alternative, choose the one which best expresses the given sentence in passive voice.
"People believe that the artist concealed a secret message in the painting."

a) The artist is believed to conceal a secret message in the painting.
b) It is believed that a secret message was concealed in the painting by the artist.
c) People believed that a secret message had been concealed.
d) The painting is believed to be concealing a secret message.

55) Choose the best option of indirect speech from of the sentences given below.
She said, "Had I known, I would have acted differently."

a) She said that had she known, she would act differently.
b) She says that she would act differently if she knew.
c) She said that if she had known, she would have acted differently.
d) She asked if she would have known earlier.

SECTION – D
APTITUDE

56) What will be angle between the minute hand and hour hand of a clock when the time is 11:45?

a) 72° b) 86.5°

c) 82.5° d) 74°

57) If a girl's first birthday is on Monday and her father's birthday is on 43 days after the girl's birthday, then on which day her father's birthday fall?

a) Tuesday b) Thursday

c) Monday d) Wednesday

58) Vinayak is facing towards South. He turns 90° clockwise and starts walking, then he takes two consecutive left turns followed by a right turn. In which direction is he facing now?

a) South b) West

c) East d) North

59) In a certain code language, if CABLE is written as VHHZQ, then how will MOUSE be written in the same code language?

a) RJAXZ b) GJAZY

c) JRAZX d) XZARJ

60) If 'A+B' means 'A is the sister of B', 'A*B' means 'A is the wife of B,' 'A÷B' means 'A is the father of B' and 'A-B' means 'A is the brother of B', then which of following expresses that 'T is the daughter of P'?

a) $P * Q \div R + S - T$ b) $P * Q \div R - T + S$

c) $P * Q \div R + T - S$ d) $P * Q \div R + S + T$

61) R is the only daughter-in-law of M, who is brother of T. O is the mother of S's father N and only sister-in-law of T. How is R related to S?

a) Mother b) Mother-in-law

c) Aunt d) Can't say

62) If the digits in the number 745293 are arranged in ascending order, then what will be the difference between the second digit from the right end and third digit from the left end in the new arrangement?

a) 3 b) 4

c) 2 d) 1

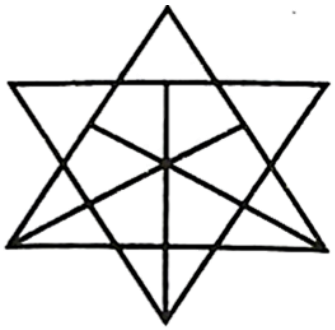
63) Find the number of triangles in the given (fig. 5)?

a) 21

b) 23

c) 27

d) 25



(fig. 5)

64) Select the correct set of symbols which will fit (in the same order) in the blank spaces of given expression to make it correct. 28__6__25__5__4 = 2

a) $-, \times, \div, +$ b) $+, \div, -, \times$

c) $\div, +, -, \times$ d) $-, +, \times, \div$

65) Deepika went to watch a comedy show on 6 days after Tuesday. If she watches comedy show in every 10 days, then on what day will she watch next comedy show?
a) Friday b) Wednesday
c) Thursday d) Saturday

SECTION – E
GENERAL KNOWLEDGE

66) How many people have been announced to be given the Padma Award by the government of India in 2025?
a) 121 b) 139
c) 140 d) 155
67) Which day is observed as the International Day of Education every year?
a) 24 January b) 25 January
c) 26 January d) 27 January
68) IDFC First Bank has partnered with whom to launch the First EA₹N Credit Card.
a) VISA Card b) Rupay Card
c) Master Card d) None of these
69) Karpoori Thakur will be honoured with Bharat Ratna (posthumously), he was the former Chief Minister of which state?
a) Karnataka b) Jharkhand
c) Uttar Pradesh d) Bihar
70) This species of shark is rarely seen by humans and was first discovered in 1976. It is found in deep water and is believed that it swims with its mouth wide open. Name the shark.
a) Megamouth b) Mako
c) Hammerhead d) Blacktip
71) Who inaugurated the Handloom conclave Manthan?
a) Shri. Narendra Modi b) Shri. Giriraj Singh
c) Shri. Piyush Goyal d) Smt. Smriti Irani
72) Which missile or munition was used in Operation Sindoor for deep precision strikes?
a) BrahMos b) SCALP Cruise Missile
c) Agni-V d) Prithvi-II
73) Which country conducted the 'Drone Prahar Exercise' to test drone technologies in combat zones?
a) China b) India
c) Russia d) America
74) Who has been appointed as the new chairman of ISRO in 2025?
a) K. Sivan b) S. Somanath
c) Anil Kumar d) R. Hegde
75) Permafrost is a permanently frozen layer on or under the Earth's surface. It is found at places like Siberia, Alaska, etc. Permafrost is melting due to the rise in Earth's average temperature and its melting will have catastrophic consequences for the life on planet. Which of the following gases are released from its melting?
a) Carbon dioxide and methane b) Hydrogen sulphide and chlorine
c) Ammonia and carbon monoxide d) Chlorine and arsine