IMPORTANT INSTRUCTIONS

- The maximum marks are **300.** Time allotted is **90 MINTUES.**
- There are four sections in the question paper having total **75 questions:**
  - Section – A : Maths (20 Questions)
  - Section – B : Science (20 Questions)
  - Section – C : English (20 Questions)
  - Section – D : Aptitude (15 Questions)
- Each question carries **4 marks**
- **Negative Marking** : **1/4 (one-fourth) marks** will be deducted for every incorrect answer.
- **Use only BLUE / BLACK pen to fill the circles in bubble sheet.**
- Use of pencil is strictly **not allowed.**
- **Do not use marker or Correction pen** to hide the marks.

SECTION – A MATHS

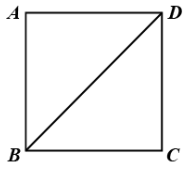
1. Identify the place value of the underlined digit from the number given below.
   8, 52**3**, 615
   (a) millions (b) thousands (c) hundreds (d) tens

2. Match the following.

Column I	Column II
(i) 100 crores	(P) 1 thousand
(ii) 10 lakhs	(Q) 1 lakh
(iii) 100 thousands	(R) 1 billion
(iv) 100 tens	(S) 1 million

   (a) (i) → (*P*), (ii) → (Q), (iii) → (S), (iv) → (R)
   (b) (i) → (*R*), (ii) → (S), (iii) → (P), (iv) → (Q)
   (c) (i) → (*R*), (ii) → (S), (iii) → (Q), (iv) → (P)
   (d) (i) → (*P*), (ii) → (S), (iii) → (Q), (iv) → (R)

3. In the given figure, there are _____ angles.



   (a) 4 (b) 8 (c) 6 (d) 10

4. Which of the following is **NOT t**rue?
   (a) (7 + 8) + 9 = 7 + (8 + 9) (b) (7 × 8) × 9 = 7 × (8 × 9)
   (c) 7 + 8 × 9 = (7 + 8) × (7 + 9) (d) 7 × (8 + 9) = (7 × 8) + (7 × 9)

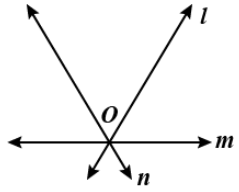
5. Match the following:

Column I	Column II
(i) 49	(p) Multiple of 3
(ii) 25	(q) Multiple of 4
(iii) 16	(r) Multiple of 7
(iv) 39	(s) Multiple of 5

	(i)	(ii)	(iii)	(iv)
(a)	(s)	(p)	(r)	(q)
(b)	(r)	(s)	(q)	(p)
(c)	(s)	(r)	(p)	(q)
(d)	(p)	(q)	(r)	(s)

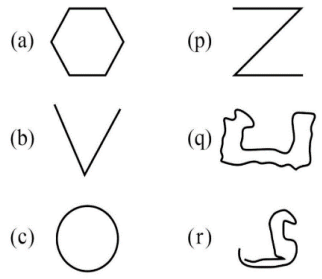
6. (25 × 22) × 25 = 25 × (22 × 25) is an example of _____ property.
   (a) commutative (b) associative (c) closure (d) distributive

7. In the given figure, lines l, m *and* n are called _____ lines.



   (a) collinear (b) parallel (c) congruent (d) transversal

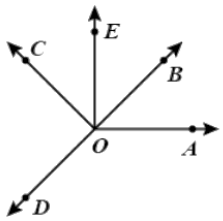
8. Classify the following into open and closed curves.



Open Curves	Closed Curves
(a) (b, p, r)	(a, c, q)
(b) (b, q, c)	(a, p, r)
(c) (p, q, a)	(r, c, b)
(d) (r, b, a)	(p, q, c)

9. Which of the following is **CORRECT**?
   (a) – 99 < 0 < 2 < – 37 (b) – 99 < −37 < 0 < 2
   (c) – 37 < 0 < 2 < −99 (d) – 37 < −99 < 0 < 2

10. Study the given figure carefully and match the following.



Column I	Column II
(A) $\angle AOB$	(i) straight angle
(B) $\angle AOE$	(ii) acute angle
(C) $\angle AOC$	(iii) right angle
(D) $\angle BOD$	(iv) obtuse angle

(a) A → (i); B → (iv); C → (ii); D → (iii) (b) A → (ii); B → (i); C → (iii); D → (iv)
(c) A → (ii); B → (iii); C → (iv); D → (i) (d) A → (i); B → (ii); C → (iii); D → (iv)

11. If 60 is divided into two parts in the ratio 2 : 3, then the difference between those two parts is _____.
(a) 10 (b) 12 (c) 5 (d) 18

12. Match the following.

Column I	**Column II**
(i) The additive inverse of 2	(A) 0
(ii) The greatest negative integer	(B) – 2
(iii) The smallest integer greater than every negative integer	(C) 2
(iv) Sum of predecessor and successor of 1	(D) – 1

(a) (i) → (C), (ii) → (D), (iii) → (A), (iv) → (B) (b) (i) → (B), (ii) → (D), (iii) → (A), (iv) → (C)
(c) (i) → C, (ii) → (D), (iii) → (B), (iv) → (A) (d) (i) → (B), (ii) → (C), (iii) → (A), (iv) → (D)

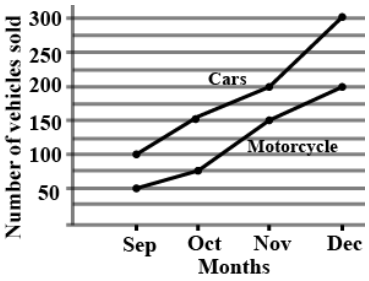
13. Simplify:
$$4\frac{3}{5} - 2\frac{7}{9} - 1\frac{2}{15} - \frac{2}{5}$$
(a) $\frac{14}{45}$ (b) $\frac{13}{45}$ (c) $\frac{16}{45}$ (d) $\frac{12}{45}$

14. Arrange the following decimal numbers in ascending order.
3.6, 3.06, 3.306, 0.306
(a) 3.6, 3.306, 3.06, 0.306 (b) 3.06, 0.306, 3.306, 3.6
(c) 3.6, 3.06, 0.306, 3.306 (d) 0.306, 3.06, 3.306, 3.6

15. The marks (out of 10) obtained by 28 students in a Mathematics test are listed as below:
8, 1, 2, 6, 5, 5, 5, 0, 1, 9, 7, 8, 0, 5, 8, 3, 0, 8, 10, 10, 3, 4, 8, 7, 8, 9, 2, 0
The number of students who obtained marks more than or equal to 5 is _____.
(a) 13 (b) 15 (c) 16 (d) 17

16. If perimeter of an equilateral triangle is 18 cm, then the length of its side will be _____.
(a) 5 cm (b) 6 cm (c) 7 cm (d) 8 cm

17. The given line graph shows the number of cars and motorcycles sold at Beena's electronic store from September to December.



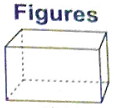
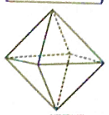
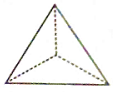
How many more cars than motorcycles did the store sell in October?

(a) 120 (b) 100 (c) 75 (d) 85

18. The algebraic expression for the statement 'Thrice of x is added to twice of y is _____.

(a) $3x + 2y$ (b) $3x + y$ (c) $3(x + y)$ (d) $2x + 3y$

19. Select the **INCORRECT** option.

	Solids	Figures
a)	Rectangular prism -	
b)	Octahedron -	
c)	Triangular prism -	
d)	Tetrahedron -	

20. The number of lines of symmetry of a kite is

(a) 0 (b) 1 (c) 2 (d) 3

SECTION – B
SCIENCE

21. Which of the following is not the property of air?

a) air fills space b) air gives shape to things c) air has weight d) none of these

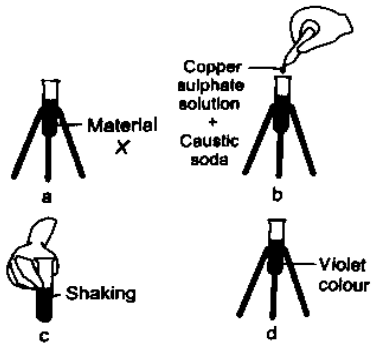
22. Select an incorrect reason for separating components of a mixture.

(a) To separate two or more different but useful components (b) To obtain pure sample of a substance
(b) To remove undesirable and useless components (c) To remove pure or harmless components

23. Refer to the given paragraph and select the correct option regarding X, Y and Z. The process of making yarn from fibres are called X. Yarn are used for making fabrics. Two main processes are used to make fabrics from yarn. In process Y, two sets of yarn are arranged together to make a fabric while in process Z single yarn is used to make a piece of fabric.

(a) X: Knitting; Y: Spinning; Z: Weaving (b) X: Spinning; Y: Weaving; Z: Knitting
(c) X: Weaving; Y: Spinning; Z: knitting (d) X: Spinning; Y: Knitting; Z: Weaving

24. Observe the given experimental figures carefully. What does this experiment prove?



(a) Material X contains proteins.
(b) Material X contains carbohydrates.
(c) Material X contains fats.
(d) Material X contains iodine.

25. Select the option with the correct sequence of words to fill the blanks in the given sentences.
(a) Cod liver oil is a rich source of **(i).**
(b) Deficiency of vitamin C in body causes a diseases known as **(ii).**
(c) Goitre is caused by the lack of **(iii)** in the diet.
(d) Deficiency of **(iv)** can leads to rickets in children and osteoporosis in adults.

	(i)	(ii)	(iii)	(iv)
(a)	Vitamin D	Rickets	Potassium	Magnesium
(b)	Vitamin A	Scurvy	Iodine	Calcium
(c)	Vitamin C	Rickets	Iodine	Calcium
(d)	Vitamin B	Scurvy	Potassium	Protein

26. Match column I with column II and select the correct option from codes given below.

Column I	Column II
(i) Ginning	(A) Cleaning and disentangling the fibres
(ii) Combing	(B) Brushing and Straightening
(iii) Carding	(C) Bolls
(iv) Seed pods	(D) Cotton fibres after being separated from seeds
(v) Lint	(E) Separating fibres from seed

(a) (i) – (E); (ii) – (B); (iii) – (A); (iv) – (C); (v) – (D)
(b) (i) – (D); (ii) – (E); (iii) – (B); (iv) – (A); (v) – (C)
(c) (i) – (E); (ii) – (A); (iii) – (B); (iv) – (C); (v) – (D)
(d) (i) – (D); (ii) – (A); (iii) – (B); (iv) – (C); (v) – (E)

27. A brief information about three substances is given:
X : Transparent, smooth to touch and insulator.
Y : Yellow in colour, good conductor of heat and electricity, lustrous.
Z : Man-made material, an insulator, used to make switches and handles of cooking utensils.
X, Y and Z could be respectively
(a) Water, copper, aluminium
(b) Glass, gold, plastic
(c) Paper, aluminium, copper
(d) Silver, gold, copper

28. Depending upon the nature of the constituents present in a mixture, Suhana, a class 6 student suggested some methods of separation as shown in the table.

Types of mixture	Methods of separation
1. Solid - Solid	Handpicking, Sieving
2. Solid – Liquid (insoluble)	Sedimentation- Decantation, Filtration
3. Liquid – Liquid (immiscible)	Decantation, Separating funnel
4. Solid – Liquid (soluble)	Filtration, Decantation
5. Liquid – Liquid (miscible)	Distillation

Which of these is/are incorrect method (s) of separation?

(a) 1 and 2 only (b) 3 only (c) 1 and 5 only (d) 4 only

29. Few changes are given below. Mark the correct option from the given codes.

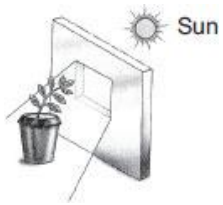
(i) Milk is set to form curd. (ii) Batter is steamed to form idlis.

(iii) Water is boiled to form steam. (iv) Salt is dissolved in water to form solution

	(i)	(ii)	(iii)	(iv)
(a)	Physical	Physical	Chemical	Chemical
(b)	Physical	Chemical	Physical	Chemical
(c)	Chemical	Chemical	Physical	Physical
(d)	Physical	Chemical	Chemical	Physical

30. The given figure shows an example of _____.

(a) Phototropism
(b) Geotropism
(c) Autotropism
(d) Photosynthesis



31. Consider the following phenomena:

(i) Forest fire (ii) Growth of plants

(iii) Low and high tides (iv) Occurrence of a rainbow

(v) Earthquakes (vi) Opening of a morning glory flower

Which of the above phenomena can be classified as periodic changes?

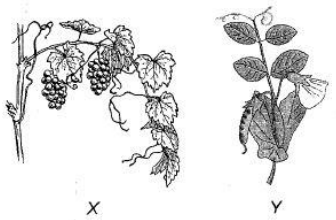
(a) (i), (ii) and (iii) only (b) (i), (ii) and (v) only

(c) (iv), (v) and (vi) only (d) (iii) and (vi) only

32. At what trophic level in the food chain the autotrophs are present.

a) first trophic level b) second trophic level c) third trophic level d) fourth trophic level

33. Refer to the given figures X and Y; and select the incorrect statement regarding them.



(a) In X, stem is modified to form tendril whereas in Y leaf is modified to form tendril.

(b) Both X and Y are weak-stemmed plants.

(c) X type tendrils are also found in passion flower whereas Y type tendrils are also found in Gloriosa.

(d) In X, leaf is modified to form tendril whereas in Y, stem is modified to form tendril.

34. In circular motion, the
(a) direction of motion is fixed (b) direction of motion changes continuously
(c) acceleration is zero (d) velocity is constant

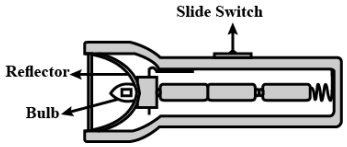
35. A plane mirror reflects a pencil of light to form a real image. Then the pencil of light incident on the mirror is
(a) parallel (b) convergent (c) divergent (d) none of these

36. Match column I with column II and select the correct option from the given codes.

Column I	Column II
(A) Hinge joint	(i) Neck joint
(B) Gliding joint	(ii) Hip joint
(C) Pivot joint	(iii) Knee joint
(D) Ball and socket joint	(iv) Wrist joint

(a) (A) – (iii), (B) – (iv), (C) – (i), (D) – (ii)
(b) (A) – (iv), (B) – (i), (C) – (iii), (D) – (ii)
(c) (A) – (i), (B) – (ii), (C) – (iv), (D) – (iii)
(d) (A) – (ii), (B) – (iii), (C) – (i), (D) – (iv)

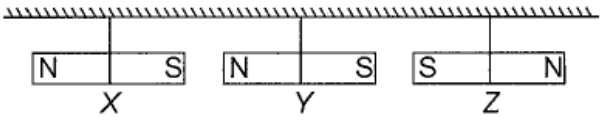
37. Given diagram shows the lateral section of a torch containing cells. The torch is not glowing when the switch is ON. Which of the following statements may be correct regarding the reasons?



(i) Bulb of the torch is fused
(ii) Cells are not connected property.
(iii) The metal parts of the torch do not make proper contact with the cell.

(a) Only (i) and (ii) (b) Only (ii) and (iii) (c) Only (i) and (iii) (d) All (i), (ii) and (iii)

38. What will happen when three bar magnets are hung in the manner as shown below?



(a) Nothing will happen
(b) Magnet Y will turn round and round.
(c) Magnet Y will move towards magnet Z.
(d) Magnet Y will move towards magnet X.

39. Which of the following statements are true about acid rain?
(i) Acid rain has harmful effects on the living beings.
(ii) Acid rain mainly comprises of H_2SO_4 and HNO_3.
(iii) Greenhouse gases are mainly responsible for causing acid rain.
(iv) Acid rain causes damage to buildings

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

40. Match column I with column II and select the correct option from codes given below.

Column I	Column II
(A) Tea leaves	(i) Farmer's friend
(B) Earthworm	(ii) Greenhouse gas
(C) Microorganisms	(iii) Changes into compost
(D) Polythene bags	(iv) Cannot be changed into compost
(E) Methane	(v) Bacteria

(a) (A) – (iii), (B) – (i), (C) – (v), (D) – (iv), (E) – (ii) (b) (A) – (iii), (B) – (v), (C) – (i), (D) – (iv), (E) – (ii)

(c) (A) – (ii), (B) – (v), (C) – (i), (D) – (iii), (E) – (iv) (d) (A) – (ii), (B) – (i), (C) – (iv), (D) – (v), (E) – (iii)

SECTION – C
ENGLISH

- **Read the passage and answer the following questions.**

Most people believe that the best time of one's life is childhood. There are a few responsibility and no bills to worry about. A child does not have to worry about getting a job, making a successful career or doing the household chores. This enables a child to have lots of free time that they can devote to play, which can build up their creativity. This can give children a life that is filled with excitement and new happenings. There are times when children might find it difficult to buy all the things they want with the insufficient pocket money they get. Adults surely have less restrictions in a few things, when compared to a child.

41. According to the passage, a child does not have to worry about doing the _____.
(a) household chores (b) homework (c) taxes (d) accounts

42. Adults have less _____.
(a) independence (b) bills (c) restrictions (d) restricted behaviour

Word and Structure Knowledge

43. _____ Earth moves around _____ Sun.
(a) An, The (b) The, The (c) A, The (d) A, An

44. I _____ the newspaper yet.
(a) have read (b) am reading (c) hasn't been reading (d) haven't read

45. Sita _____ to sit idle.
(a) did not liked (b) didn't like (c) likes (d) Is like

46. They had eaten all the fruits.
(a) All the fruits had eaten by them (b) They had been eaten all the fruits
(c) All the fruits had been eaten by them. (d) All of the above.

47. Give the usage of the word underlined in the given sentence.
Wait **till** I return.
(a) Adjective (b) Conjunction (c) Determiners (d) Pronoun

48. Fill in the blank with correct pronoun.
Two sisters loved _____.
(a) one another (b) each other (c) neither (d) themselves

49. Change the direct sentence into indirect one.
The boy said to me, "Don't buy this toy".
(a) the boy asked me not to buy the toy (b) the boy told me not to buy the toy
(c) the boy forbade me to buy that toy (d) all of these

50. Select correct verb to replace the blanks.
I only _____ a little salt for my biryani.
(a) want (b) wanting (c) have wanted (d) will want

51. Select synonym to the underlined word.
That big house surrounded with great trees had **served** as a hospital during the war.
(a) functioned (b) exerted (c) moaned (d) reconciled

52. Fill in the blank with correct verb.
I _____ my practice because I didn't understand the questions.
(a) did (b) won't do (c) will do (d) didn't do

53. Select antonym to the underlined word.
They **abandoned** their old house, when they built a new one.
(a) vacate (b) kept (c) deserted (d) freed

54. Select options correctly showing the change of sentences from Direct speech to Indirect Speech.
The boy said, "I have eaten my breakfast".
(a) The boy said that he has eaten my breakfast. (b) The boy said that he had eaten my breakfast.
(c) The boy said that he ate his breakfast. (d) The boy said that he had eaten his breakfast.

55. Choose the correct adverb.
I have seen alone. One should _____ be optimistic in life.
(a) once (b) always (c) never (d) enough

56. Choose the odd one out from each set of words.
(a) enthusiasm (b) zeal (c) apathy (d) none

57. Choose the right spelling of the word.
(a) undoubtabily (b) undoubtably (c) undoubtabely (d) undoubtabily

58. Marry had to rush. Her mother _____ for her in the car.
(a) is wait (b) is waiting (c) had waited (d) was waiting

59. Given below are sets of three sentences. One in each set is incorrect. Choose the incorrect sentence.
(a) each of us has a new opportunity. (b) all my friends has seen curious man.
(c) raj and Mohan live close to the school. (d) none.

60. Change the voice: Was Rajesh reading a novel?
(a) A novel was being read by Rajesh (b) Was a novel read by Rajesh?
(c) Was a novel being read by Rajesh? (d) Rajesh was reading a novel.

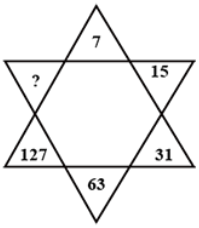
SECTION – D
APTITUDE

61. Which of the following set of letters will complete the given letter series?
WFB, TGD, QHG?
(a) NIJ (b) NIK (c) NJK (d) PJK

62. In a joint family, there are father, mother, 4 married sons and three unmarried daughters. Out of the sons, two have 2 daughters each, and two have a son and a daughter each. How many female members are there in the family?
(a) 15 (b) 12 (c) 14 (d) 11

63. In a certain code, TELEPHONE is written as ENOHPELET. How is ALIGATOR written in that code?
(a) ROTAGILA (b) ROTAGAIL (c) ROTAGILE (d) ROTEGILA

64. Find the missing character, if a certain rule is followed in the figure.



(a) 190 (b) 221 (c) 236 (d) 255

65. If husband is called wife, wife is called grandfather, grandfather is called grandmother, grandmother is called maternal grandmother, maternal grandmother is called maternal grandfather, maternal grandfather is called maternal uncle and maternal uncle is called maternal aunt, then what will be the father of the mother be called?
(a) Maternal grandmother (b) Maternal uncle (c) Maternal grandfather (d) Maternal aunt

66. In a class of 35 students, Kunal is placed seventh from the bottom whereas Sonali is placed ninth from the top. Pulkit is placed exactly in between the two. What is Kunal's position from Pulkit?
(a) 9 (b) 10 (c) 11 (d) 13

67. Pia walks a distance of 4 metres towards South. Then she turns to the left and walks 3 metres. After this she turns to the right and walks 4 metres. In which direction is she facing now?
(a) North-East (b) South (c) North (d) South-West

68. If '+' denotes '−', '−' denotes '× ′, '×' denotes '÷' and '÷' denotes '+', then
15 – 3 + 10 × 5 ÷ 5 = ?
(a) 5 (b) 22 (c) 48 (d) 52

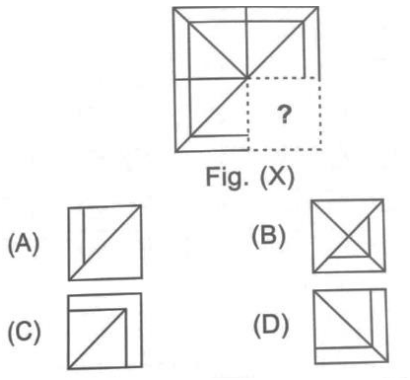
69. If ' Racket' is called 'Football', 'Football' is called 'Cricket bat', 'Cricket bat' is called 'Basket ball' and 'Basket Ball' is called 'Dice', then by which a cricketer play with?
(a) Cricket bat (b) Dice (c) Basket ball (d) Racket

70. A retailer bought 12000 strawberries. He threw 144 strawberries that were rotten. He packed the remaining strawberries equally in 76 boxes. How many strawberries were there in each box?
(a) 156 (b) 149 (c) 160 (d) 250

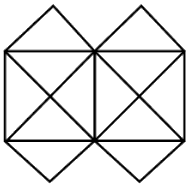
71. Which pair of figures shows a reflection over the line segment?



72. Which of the following options will complete the pattern in Fig. (X)



73. Count the number of triangles in the given figure.

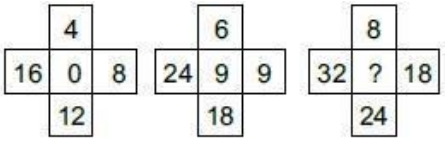


(a) 12 (b) 16 (c) 22 (d) 24

74. Find the fraction, if its decimal value is 0.6 and denominator is 75.

(a) $\frac{35}{75}$ (b) $\frac{45}{75}$ (c) $\frac{65}{75}$ (d) $\frac{85}{75}$

75. Find the missing number, if same rule is followed in all the three figures.



(a) 20 (b) 4 (c) 18 (d) 25