



CLASS-VII	AARAMBH	DATE: 01-10-19
Max. Time: 120 min		Max marks: 320

Instructions:

- The test paper consists of **80** multiple choice questions numbered from **1 to 80**, each question followed by four alternatives 1, 2, 3 and 4.
- Mental Ability 1 to 20, Mathematics 21 to 35, Physics 36 to 50 and Chemistry 51 to 65, Biology 66 to 80.
- Each question has only one correct option.
- Each correct answer carries **+4 Marks**.
- No negative marking for wrong answer.

MAT (Q.NO.1 TO 20)

- 3, 7, 23, 95, ?**
 1) 62 2) 128 3) 479 4) 575
- 8, 9, 8, 7, 10, 9, 6, 11, 10, ?, 12**
 1) 5 2) 7 3) 8 4) 11
- 3, 8, 13, 24, 41, ?**
 1) 70 2) 75 3) 80 4) 85
- 4, 12, 36, 108, ?**
 1) 144 2) 216 3) 304 4) 324
- How many such 5s are there in the following number sequence each of which is immediately preceded by 3 or 4 but not immediately followed by 8 or 9?**
3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0
 1) None 2) Three 3) Four 4) Five
- In the series given below, how many 8s are there each of which is exactly divisible by its immediate preceding as well as succeeding numbers?**
2 8 3 8 2 4 8 2 4 8 6 8 2 8 2 4 8 3 8 2 8 6
 1) One 2) Two
 3) Three 4) Four
- Rohan ranks seventh from the top and twenty-sixth from the bottom in a class. How many students are there in the class?**

1) 31

2) 32

3) 33

4) 34

Directions (Questions 8-11): A letter in a cell is represented first by its column number and then by its row number e.g., G in column 3 and row 1 is represented by 31.

	0	1	2	3	4	5	6	7	8	9
0	I	L	B	P	K	N	H	S	A	E
1	M	A	Q	G	T	V	I	O	N	U
2	H	R	W	J	A	X	B	E	C	I
3	T	Y	A	I	U	U	O	N	J	F
4	F	O	B	M	E	G	U	K	W	R
5	A	C	L	J	X	R	A	A	X	T
6	P	S	U	E	Z	K	V	W	D	L
7	Z	D	Y	V	F	O	H	Y	I	O
8	M	I	Z	Q	E	A	U	E	I	S
9	P	E	O	D	E	U	Q	O	C	G

8. JAIL

1) 32, 05, 25, 44

2) 32, 05, 87, 96

3) 35, 23, 26, 33

4) 83, 65, 25, 44

9. BLOT

1) 20, 10, 71, 22

2) 24, 10, 26, 48

3) 34, 35, 63, 03

4) 62, 25, 57, 95

10. JOKE

1) 32, 14, 56, 44

2) 35, 14, 37, 78

3) 83, 63, 40, 59

4) 83, 71, 25, 36

11. OMIT

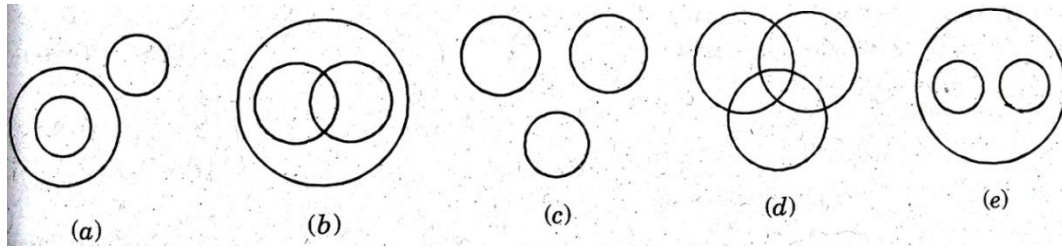
1) 14, 34, 88, 95

2) 63, 44, 88, 03

3) 79, 09, 61, 41

4) 97, 34, 62, 95

Directions (Q.No-12 to 13) : Each of the following questions below contains three elements. These three elements may or not have some linkage. Each group of the elements may fit into one of the diagrams at (a), (b), (c), (d) and (e). You have to indicate groups of elements in each questions fit into which of the diagram given below. The letter indicating the diagram is the answer.



12. Machine, Lathe, Mathematics

- 1) a 2) b 3) c 4) e

13. Honesty, Intelligence, Aptitude

- 1) a 2) b 3) c 4) d

Directions (Q.No-14-16) : In each of the following questions, four numbers have been given out of which three are alike in some manner, while the fourth one is different. Choose out the odd one.

14. a) 21 b) 36 c) 49 d) 56

- 1) a 2) b
3) c 4) d

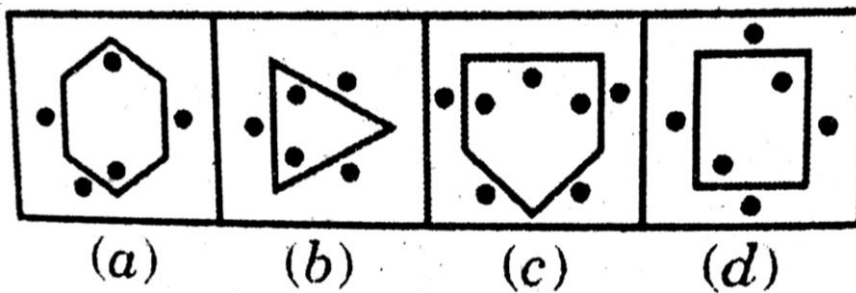
15. a) 751 b) 734 c) 981 d) 853

- 1) a 2) b
3) c 4) d

16. a) 3629 b) 1592 c) 3756 d) 4298

- 1) a 2) b
3) c 4) d

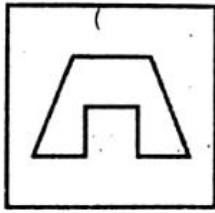
17. Figure Classification



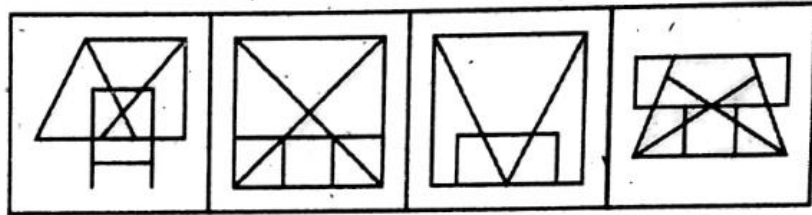
- 1) a 2) b
3) c 4) d

Directions (Q. No: 18): Embedded Figure.

18.



(X)



(a)

(b)

(c)

(d)

1) a

2) b

3) c

4) d

Directions (Q. No: 19): Water Image.

19.



(X)



(a)



(b)



(c)



(d)

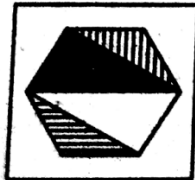
1) a

2) b

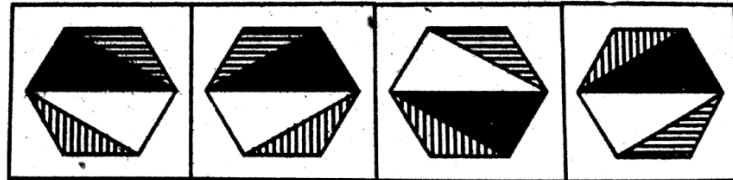
3) c

4) d

20. Directions : Mirror image



(X)



(a)

(b)

(c)

(d)

1) a

2) b

3) c

4) d

MATHEMATICS (Q.NO.21 TO 35)

21. The sum of two integers is -8. If one of them is 5, then the other is

1) 3

2) 13

3) -3

4) -13

22. _____ number should be multiplied by $\left(\frac{1}{2}\right)^{-1}$ so that the product is $\left(\frac{-5}{4}\right)^{-1}$

1) $\frac{-2}{5}$

2) $\frac{-5}{2}$

3) $\frac{2}{5}$

4) 1

23. The rational number that does not have reciprocal is
1) 1 2) -1 3) 0 4) 2
24. An 85m long rod is divided into two parts. If one part is $\frac{2}{3}$ of the other part, then the longer part (in meters) is:
1) 34 2) $56\frac{2}{3}$ 3) 85 4) 51
25. If a, b and c are respectively the coefficients of x^2 in $-x^2, 2x^2 + x$ and $2x - x^2$ respectively, then $a + b + c =$
1) 0 2) -2 3) 2 4) -1
26. By which number should 0.022 be multiplied so that product becomes 66?
1) 3000 2) 3200 3) 4000 4) 3600
27. The sum of an angle and half of its complementary angle is 75° . The measure of the angle is
1) 40° 2) 50° 3) 60° 4) 80°
28. At 5'O clock the angle between two hands two hands in a clock is
1) 120° 2) 130° 3) 140° 4) 150°
29. If $2x=3y$ and $4y=5z$, then $x:z =$
1) 4 : 3 2) 8 : 15 3) 3 : 4 4) 15 : 8
30. If $2x - 1 = \frac{x+1}{3}$, then $x =$
1) $\frac{5}{4}$ 2) $\frac{6}{5}$ 3) $\frac{4}{5}$ 4) $\frac{1}{5}$
31. In a school, only 2 out of 5 students can participate in a quiz. What is the chance that a student picked at random makes it to the competition?
1) 20% 2) 40% 3) 50% 4) 30%
32. Area of a rectangular and the area of a circle are equal. If the dimensions of the rectangle are $14\text{cm} \times 11\text{cm}$, then the radius of the circle is
1) 21cm 2) 10.5 cm 3) 14 cm 4) 7 cm
33. The perimeter of a regular pentagon is 100m. How long is its each side?
1) 400m 2) 20m 3) 500m 4) 50 m
34. The area of the right angled triangle with base = 7cm and hypotenuse = 25 cm is

- 1) $85cm^2$
- 2) $86cm^2$
- 3) $84cm^2$
- 4) $87cm^2$

35. You want to establish $\triangle DEF \cong \triangle MNP$ using the ASA congruence rule. You are given that $\angle D = \angle M$ and $\angle F = \angle P$. The information needed to establish the congruence is

- 1) $DE=MN$
- 2) $EP=NP$
- 3) $\angle D = \angle M$
- 4) $DF=MP$

PHYSICS (Q.NO.36 TO 50)

36. The substances that cannot be magnetized/attracted by a powerful Magnet are called:

- 1) Ferro magnetic substances
- 2) paramagnetic substances
- 3) Non-magnetic substances
- 4) none of the above

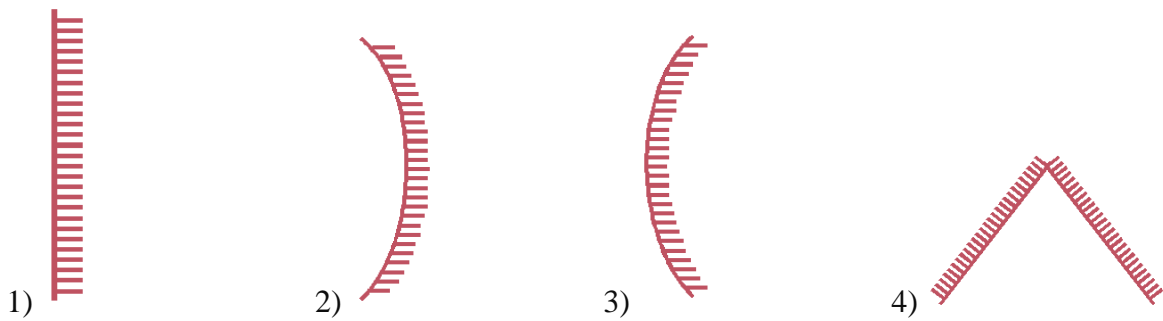
37. The north pole of earth’s magnet is in the:

- 1) Geographical south
- 2) Geographical east
- 3) Geographical west
- 4) Geographical north

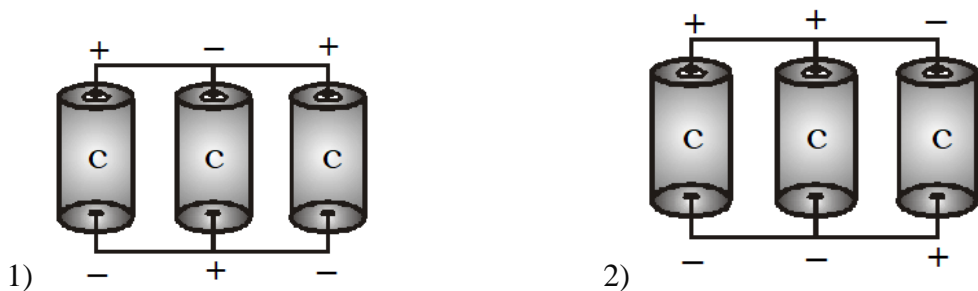
38. Which of the following can never form a circular shadow?

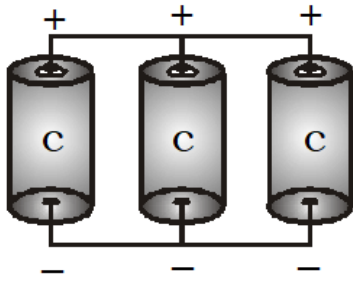
- 1) A ball
- 2) A flat disc
- 3) A shoe box
- 4) An ice cream cone

39. Which of the following represents convex mirror?



40. Which of the following arrangement shows cells in parallel?





4) All the above

41. The liquid used in a simple voltaic cell is

- 1) Dilute sodium hydroxide
- 2) Dilute nitric acid
- 3) Dilute hydrochloric acid
- 4) Dilute sulphuric acid

42. A particle moving in a straight line covers half the distance with speed of 3m/s. The other half of the distance is covered in two equal time intervals with speed of 4.5 m/s and 7.5 m/s respectively. The average speed of the particle during this motion is

- 1) 4.0 m/s
- 2) 5.0 m/s
- 3) 5.5 m/s
- 4) 4.8 m/s

43. A limited heavy storm which contains rain, winds and thunder is called

- 1) Lightning
- 2) Thunder
- 3) Thunderstorm
- 4) Hurricane

44. Which of the following is true of the 'eye' of a cyclone?

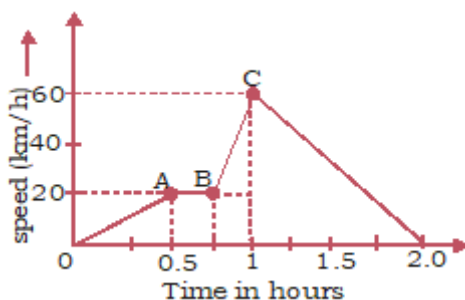
- 1) It is an area of high pressure
- 2) It is an area of low pressure
- 3) It has lots of clouds and rains
- 4) It has high temperature

45. Figure shows a measuring scale which is usually supplied with a geometry box. Which of the following distance cannot be measured with this scale by using it only once?



- 1) 0.1 m
- 2) 0.15 m
- 3) 0.2 m
- 4) 0.05 m

46. A train moves from one station to another in 2 hours' time. Its speed – time graph during this motion is shown in figure. The maximum acceleration during this journey is___



- 1) 140km/h^2 2) 160km/h^2 3) 100km/h^2 4) 120km/h^2

47. The position of the particle going along a straight line is $x = 50\text{ m}$ at 10:30 a.m. and $x = 55\text{m}$ at 10:35 a.m. The displacement between 10:30 a.m. and 10:35 a.m. is

- 1) 5 m 2) zero
3) 6m 4) 7m

48. During summer, Ravi carries water in a transparent plastic bottle to his school. One day he left his bottle in the school. The bottle still had some water left in it. The following day, he observed some water droplets on the inner surface of the empty portion of the bottle. These droplets of water were formed due to

- 1) Boiling and condensation. 2) Evaporation and saturation.
3) Evaporation and condensation. 4) Condensation and saturation

49. Which of the following statements is not true?

- 1) Materials are grouped for convenience.
2) Materials are grouped to study their properties.
3) Materials are grouped for fun.
4) Materials are grouped according to their uses.

50. A faulty centigrade thermometer is examined. The upper and lower fixed points are found to be 99.5°C and 0.5°C respectively. What is the correct temperature if this faulty thermometer reads 15.5?

- 1) 15.15°C 2) 16.16°C 3) 17.17°C 4) 18.18°C

CHEMISTRY (Q.NO.51 TO 65)

51. Air contains oxygen and nitrogen respectively in the ratio of

- 1) 2 : 4 2) 1 : 3 3) 4 : 1 4) 1 : 4

52. The chemical formula of nitric oxide gas is

- 1) NO_2 2) N_2O 3) N_2 4) NO

53. The lime water turns milky because:

- 1) It reacts with carbon monoxide 2) It reacts with oxygen
3) It reacts with carbon dioxide 4) It reacts with water

54. Relative molecular mass of water is

- 1) 16amu 2) 14amu 3) 12amu 4) 18amu

55. $2\text{H}_2\text{O} \longrightarrow 2\text{H}_2 + \text{O}_2$ in the presence of

- 1) Sunlight 2) Boiling 3) Filtration 4) Electrolysis

56. How many moles of water is formed by one mole of oxygen reacted with 2 moles

- 1) 1 mole 2) 2 mole 3) 3 mole 4) 4 mole

57. The _____ are place in hot water to draw silkworm.

- 1) Cocoons 2) Bamboo 3) Silk 4) Reels

58. _____ threads are elastic

- 1) Cotton 2) Woolen 3) Terylene 4) Rayon

59. In _____ the threads are found to be woven very close to each other

- 1) Silk 2) Cotton 3) Wool 4) Nylon

60. Which of the following is a Strong acid?

- 1) Citric acid 2) Acetic acid
3) Maleic acid 4) sulphuric acid

61. All bases which are soluble in water are called as _____

- 1) Alkalies 2) Salts 3) Acids 4) Neutral

62. Blue coloured hydrated salt is _____

- 1) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ 2) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ 3) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ 4) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$

63. Magnetization of a piece of steel is a/an:

- 1) Chemical change 2) Reversible change
3) Irreversible change 4) Periodic change

64. Which of the following is periodic change?

- 1) Falling of trees from a tree 2) Earth quakes
3) Coughing 4) High and low tides at sea

65. Which of the following is an example of Physical change?

- 1) Metal rusting 2) Ripening of fruits
3) Water boiling 4) Paper burning

BIOLOGY (Q.NO.66 TO 80)

- 66. Sharp claws along with strong hooked beaks help the following birds in their feeding process.**
- 1) parrot 2) crane 3) vulture 4) wood pecker
- 67. The birds which are called natural scavengers are :**
- 1) hens 2) crows 3) parrots 4) pigeons
- 68. This is not an animal whose habitat is pond.**
- 1) flat worms 2) lizards 3) snails 4) pond skater
- 69. The tiny creature whose habitat is the bottom of a tree is**
- 1) ant 2) maggot 3) pond scater 4) beetle
- 70. The part that connects leaf lamina to the stem is**
- 1) petiole 2) node 3) vein 4) mid rib
- 71. The long vein present in the middle of the leaf lamina is called**
- 1) stalk 2) vertebral column
3) mid rib 4) floating rib
- 72. This is the skeleton of leaf :**
- 1) venation 2) guard cells
3) root system 4) floral arrangement
- 73. With the help of _____, we can measure wind speed and direction.**
- 1) Thermometer 2) Anemometer
3) Pyrometer 4) Barometer
- 74. Meteorologists measure _____ using rain gauge.**
- 1) Temperature 2) Coldness 3) Rainfall 4) Earthquake
- 75. The process of sending out excess water from plants is called:**
- 1) transpiration 2) respiration 3) excretion 4) reproduction
- 76. Green plants are called :**
- 1) carnivores 2) heterotrophs 3) autotrophs 4) saprophytes
- 77. Plants get water from the soil through:**
- 1) stems 2) leaves 3) stomata 4) roots
- 78. The product of photosynthesis is**
- 1) protein 2) ester 3) fat 4) glucose
- 79. The minute pores present on the bark of a plant are called :**
- 1) stomata 2) micropyles 3) lenticels 4) root hairs
- 80. The chlorophyll is removed by boiling a green leaf in**

1) alcohol

2) ether

3) salt solution

4) lime water