
	<b>NARAYANA</b> <b>GROUP OF SCHOOLS</b>	
<b>CLASS-VIII</b>	<b>AARAMBH</b>	<b>DATE: 02-10-19</b>
<b>Max. Time: 120 min</b>		<b>Max marks: 320</b>

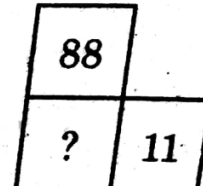
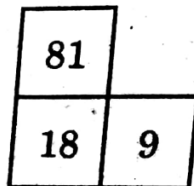
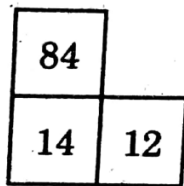
**Instructions:**

- i. 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.
- ii. Mental Ability 1 to 20, Mathematics 21 to 35, Physics 36 to 50 and Chemistry 51 to 65, Biology 66 to 80.
- iii. Each question has only one correct option.
- iv. Each correct answer carries **4 Marks**.
- v. No negative marking for wrong answer.

**MAT (Q.NO.1 TO 20)**

**Directions (Q. No-1 to 4): Find the missing character from among the given alternatives.**

1.



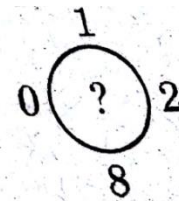
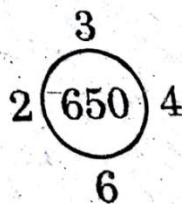
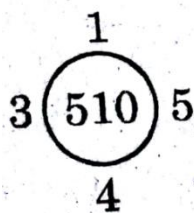
1) 16

2) 21

3) 61

4) 81

2.



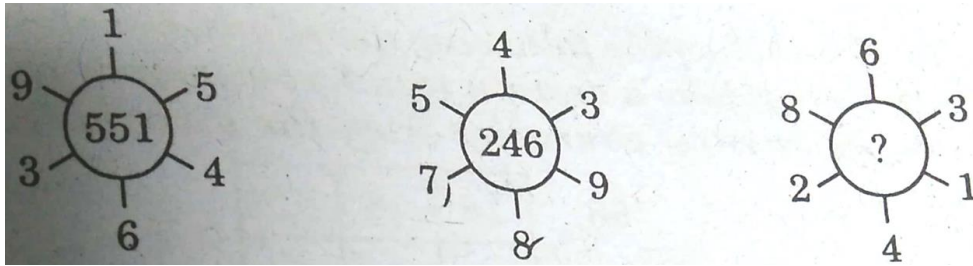
1) 610

2) 660

3) 670

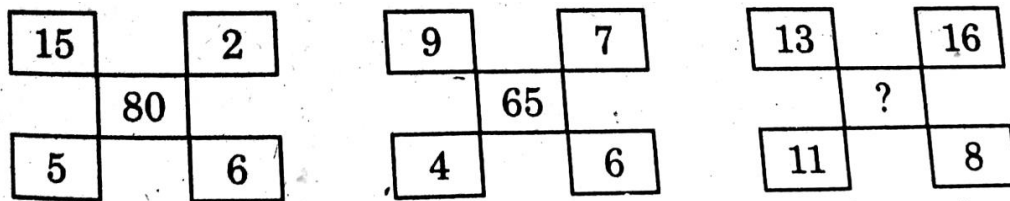
4) 690

3.



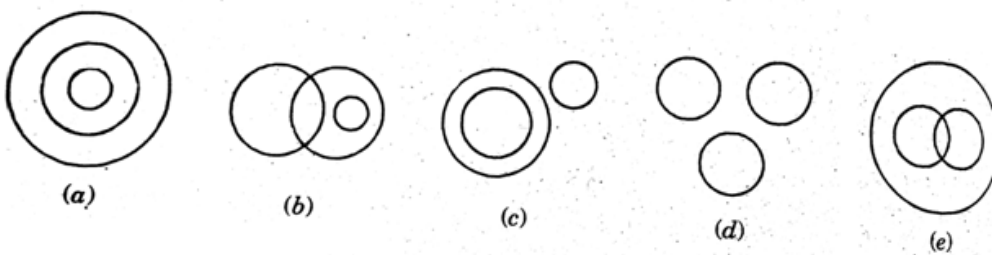
- 1) 262                      2) 622                      3) 631                      4) 824

4.



- 1) 35                      2) 48                      3) 72                      4) 120

**Directions (Q.No-5 to 6) :** 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.



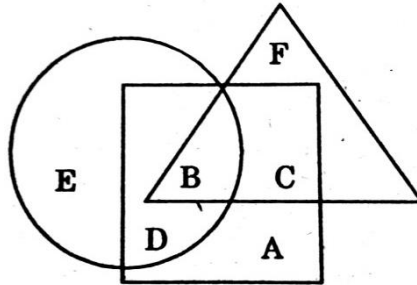
5. Names beginning with a vowel, Names beginning with E, Names beginning with either A or P

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

6. Apple, Golden apples, Fruits

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

**Directions (Q.No- 7 to 8) :** In the following diagram, three classes of population are represented by three figures. The triangle represents the school teachers, the square represents the married persons and the circle represents the persons living in joint families.



**7. Married persons living in joint families but not working as school teachers are represented by**

- 1) C                                      2) F                                      3) D                                      4) A

**8. Married teachers living in joint families are represented by**

- 1) C                                      2) B                                      3) D                                      4) A

**Directions (Q.No-9) :** If  $>$  denotes  $+$ ,  $<$  denotes  $-$ ,  $\div$  denotes  $\div$ ,  $\wedge$  denotes  $\times$ ,  $-$  denotes  $=$ ,  $\times$  denotes  $>$  and  $=$  denotes  $<$ , choose the correct statement in each of the following questions.

**9. (a)**  $13 > 7 < 6 + 2 = 3 \wedge 4$                                       **(b)**  $9 > 5 > 4 - 18 + 9 > 16$

**(c)**  $9 < 3 < 2 > 1 \times 8 \wedge 2$                                       **(d)**  $28 + 4 \wedge 2 = 6 \wedge 4 + 2$

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

**10. If  $A + B > C + D$  and  $B + C > A + D$ , then it is definite that**

- 1)  $D > B$                                       2)  $C > D$                                       3)  $A > D$                                       4)  $B > D$

**11. If RED is coded as 6720, then how would GREEN be coded?**

- 1) 1677199                                      2) 1677209                                      3) 16717209                                      4) 9207716

**Directions (Q. No:12):** It being given that :  $\Delta$  denotes ‘equal to’;  $\square$  denotes ‘not equal to’;  $+$  denotes ‘greater than’;  $-$  denotes ‘less than’;  $\times$  denotes ‘not greater than’;  $\div$  denotes ‘not less than’.

Choose the correct statement in each of the following questions:

12.  $a + b - c$  implies

- 1)  $b - c - a$                       2)  $c - b + a$                       3)  $c + b - a$                       4)  $c \times b \div a$

**Directions (Q. No: 13-14):** A solid cube has been painted yellow, blue and black on pairs of opposite faces. The cube is then cut into 36 smaller cubes such that 32 cubes are of the same size while 4 others are of bigger size. Also no face of any of the bigger cubes is painted blue.

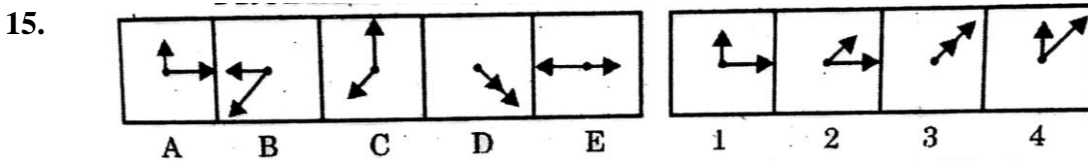
13. How many cubes have at least one face painted blue?

- 1) 0                                      2) 8                                      3) 16                                      4) 32

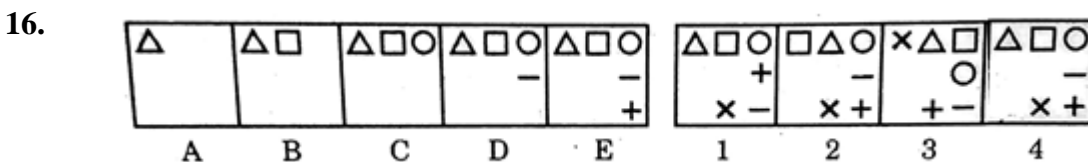
14. How many cubes have two or more faces painted?

- 1) 36                                      2) 34                                      3) 28                                      4) 24

**Directions(Q.No : 15-16) : Figure series**

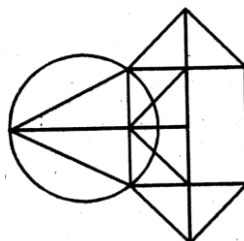


- 1) 1                                      2) 2  
3) 3                                      4) 4



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

17. Find the number of triangles in the given figure.



- 1) 10                                      2) 12                                      3) 14                                      4) 16

**18. Find out the Water Image**



(X)



(a)



(b)



(c)



(d)

1) a

2) b

3) c

4) d

**Directions (Q. No: 19-20):** Study the following information and answer the questions that follow:

All the six members of a family A, B, C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are a married couple. E is the brother of C. D is the daughter of A. F is the brother of B.

**19. How many male members are there in the family?**

1) 1

2) 2

3) 3

4) 4

**20. Who is the wife of E?**

1) A

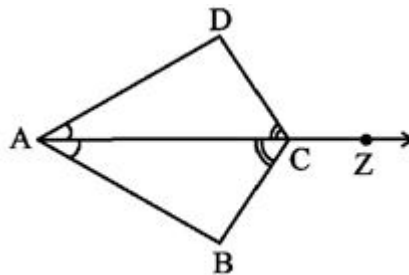
2) F

3) B

4) Cannot be determined

**MATHEMATICS (Q.NO.21 TO 35)**

**21. In the below figure, by which congruence rule the following triangles are congruent?**



1) ASA

2) SAS

3) RHS

4) SSS

**22. If  $\sqrt[3]{175616} = 56$ , then the value of  $\sqrt[3]{175.616} + \sqrt[3]{0.175616} + \sqrt[3]{0.000175616}$  is**

1) 62.16

2) 6.216

3) 6216

4) 621.6

**23. Three numbers are in the ratio 2 : 3 : 4. The sum of their cubes is 33957. Find the largest**

1) 28

2) 24

3) 32

4) 14

24. The value of  $-\frac{7}{4} + \frac{5}{3} + \frac{-5}{6} + \frac{1}{3} + \frac{-1}{2}$  is
- 1)  $-\frac{12}{13}$                       2)  $-\frac{13}{12}$                       3)  $\frac{13}{12}$                       4)  $\frac{1}{12}$
25. The difference between two whole numbers is 66. The ratio of the two numbers is 2:5. The two numbers are
- 1) 45 & 100                      2) 44 & 110                      3) 43 & 113                      4) 40 & 110
26. The solution of which of the following is neither a fraction nor an integer
- 1)  $-3x+2=5x+2$     2)  $4x-18=2$                       3)  $4x+7=x+2$                       4)  $5x-8=x+4$
27. Which of the following statements is not true?
- 1) When two positive integers are added, we always get a positive integer.  
2) When two negative integers are added we always get a negative integer.  
3) When a positive integer and a negative integer is added we always get a negative integer.  
4) Additive inverse of an integer 2 is  $(-2)$  and additive inverse of  $(-2)$  is 2.
28. 1 hectare = \_\_\_\_\_  $cm^2$
- 1) 100                      2) 10, 000                      3) 10, 00, 00                      4) 10, 00, 00,000
29. How many sides a regular polygon has whose each exterior angle is  $45^\circ$ ?
- 1) Eight                      2) seven                      3) six                      4) five
30. The value of  $\frac{\sqrt{59.29} - \sqrt{5.29}}{\sqrt{59.29} + \sqrt{5.29}}$
- 1) 15                      2) 54                      3) 0.54                      4) 5.4
31. The value of  $\left[\left(\frac{1}{2}\right)^2\right]^3 \times \left(\frac{1}{3}\right)^{-4} \times 3^{-2} \times \frac{1}{6}$
- 1)  $\frac{128}{3}$                       2)  $\frac{3}{128}$                       3) 0                      4) 1
32. Each side of a regular hexagon is 3.5cm long. The perimeter of the given polygon is
- 1) 17.5cm                      2) 18.3cm                      3) 21cm                      4) 20cm
33. How many number of faces does a hemisphere has?
- 1) 2                      2) Many                      3) 1                      4) 0
34. Which of the following number should be subtracted from 5607 to make it a perfect square ?
- 1) 121                      2) 131                      3) 141                      4) 151
35. If  $43m = 0.086$ , then the value of  $m$  is

1) 0.002

2) 0.02

3) 0.2

4) 2

**PHYSICS (Q.NO.36 TO 50)**

**36. The rate of flow of charge from a body at a higher potential to a body at a lower potential is called :**

1) Potential difference

2) potential

3) electric current

4) None of these

**37. What is the electric potential at a point in an electric field, When 96 J work is done in moving a charge of 24C from infinity?**

1) 2V

2) 3V

3) 5V

4) 4V

**38. The relationship between volt , joule and coulomb is**

1) 1volt = 1joule  $\times$  1 coulomb2) 1joule = 1 coulomb $\times$ 1volt

3) 1joule=1 coulomb/1volt

4)None of these

**39. If the distance between a crest and the adjoining trough is 20 cm. Then the wave - length will be**

1) 30 cm

2) 20 cm

3) 40 cm

4) 25 cm

**40. The amplitude of a wave measure of its\_\_\_\_\_**

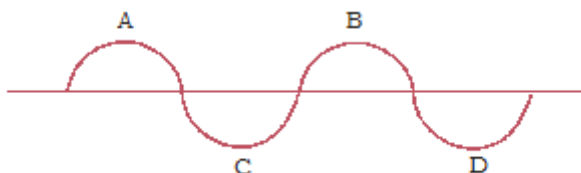
1) velocity

2) force

3) frequency

4) energy

**41.**



**In the above figure which of the following are in the same phase?\**

1) A, B

2) B,C

3) B,D

4) A,C

**42. The phenomenon in which light that strikes a surface is thrown back into the same medium is called**

1) Reflection

2) Refraction

3) Reflex action

4) Regression

**43. If density of kerosene in C.G.S is 0.8 gm/cm<sup>3</sup> then density in S.I is**

1) 800 kg/m<sup>3</sup>2) 1000 kg/m<sup>3</sup>3) 600 kg/m<sup>3</sup>4)1200kg/m<sup>3</sup>

44. What force does water exert on the base of a house tank of base area  $1.5 \text{ m}^2$  when it is filled with water up to a height of 1 m ? [Density of water is  $10^3 \text{ kg/m}^3$  and  $g = 10 \text{ m/s}^2$ ]
- 1)  $10^4 \text{ N}$       2)  $1.5 \times 10^4 \text{ N}$       3)  $2 \times 10^4 \text{ N}$       4)  $2.5 \times 10^4 \text{ N}$
45. An object is placed at a distance  $2f$  from the pole of a convex mirror of focal length  $f$  .  
The linear magnification is
- 1)  $\frac{1}{3}$       2)  $\frac{2}{3}$       3)  $\frac{3}{4}$       4) 1
46. A thermometer measures
- 1) the quantity of heat      2) density  
3) temperature      4) humidity
47. An object is placed at a distance of 40 cm in front of a concave mirror of focal length 20cm. The image produced is
- 1) virtual and inverted      2) real and erect  
3) real, inverted and diminished      4) real, inverted and of the same size as the object.
48. Two liquids A and B are at  $30^\circ\text{C}$  and  $20^\circ\text{C}$  respectively. When they are mixed in equal masses the temperature of the mixture is found to be  $26^\circ\text{C}$ . The ratio of specific heat is
- 1) 4 : 3      2) 3 : 4      3) 2 : 3      4) 3 : 2
49. Weight of an object appears to be less in the liquid than its actual weight in air. This is due to
- 1) lateral force      2) Up thrust      3) downward force      4) Pseudo force
50. Buoyant force=
1. weight of liquid displaced by immersed part of the body  
2. weight of the solid in liquid  
3. weight of the solid immersed in liquid      4. can not be determined

**CHEMISTRY (Q.NO.51 TO 65)**

51.  $4\text{Na} + \text{O}_2 \xrightarrow{\text{Heat}} \text{A}$  Then find A
- 1)  $2\text{Na}_2\text{O}$       2)  $\text{NaO}_2$       3)  $\text{NaO}$       4)  $\text{NaO}_3$
52. An example of periodic change:
- 1) Breaking of Glassware      2) Change of seasons  
3) rusting of articles      4) melting of snow on the mountains



**53. Water contain**

- 1) Hydrogen, Sulphur                      2) Oxygen, Nitrogen  
3) Hydrogen, Oxygen                      4) Chlorine, Hydrogen

**54. Coir is a fibre obtained from \_\_\_\_\_**

- 1) cover of mangoes    2) cover of coconut    3) fruit of flax                      4) stem of cotton

**55. The Property by Virtue of which substance can be drawn into wires is called as**

- 1) Malleability            2) Ductility                      3) Conductivity                      4) Lustre

**56. Ammonium hydroxide is commonly called**

- 1) Ammonia solution                      2) Ammonia liquor  
3) Sodium bicarbonate                      4) Ammonia solution and Ammonia liquor

**57. If Salt solution is prepared by dissolving 20 g of salt water then on the evaporation of water \_\_\_\_\_ g of salt is left behind**

- 1) 22 g                      2) 21 g                      3) 20 g                      4) 19 g

**58. Dilute  $\text{HNO}_3$  is s \_\_\_\_\_**

- 1) Strong oxidising agent                      2) Weak oxidising agent  
3) Strong Reducing agent                      4) Weak Reducing agent

**59. Yarn is made from fibres by the process of \_\_\_\_\_**

- 1) cutting                      2) expanding                      3) spinning                      4) ginning

**60. Consider the following statements :**

**A) Magnesium metal do not react with cold water.**

**B) Gold & Silver metals do not react with dilute hydrochloric acid.**

**Identify the correct option :**

- 1) A is true ; B is false                      2) A is false ; B is true  
3) Both A and B are true                      4) Both A and B are false

**61. Which of the following Hydroxides do not contain metal cation.**

- 1) Calcium Hydroxide                      2) Potassium Hydroxide  
3) Magnesium Hydroxide                      4) Ammonium Hydroxide

**62. Magnesium ribbon burns with \_\_\_\_\_ flame**

- 1) Brilliant Blue            2) Brilliant White                      3) Brilliant green                      4) Brilliant pink

**63.  $2\text{H}_2\text{O} \xrightarrow{\quad ? \quad} 2\text{H}_2 + \text{O}_2$  (or) electrolysis**

- 1)  $3000^\circ\text{C}$                       2)  $1500^\circ\text{C}$                       3)  $2000^\circ\text{C}$                       4)  $2800^\circ\text{C}$

**64. Identify the insect that destroys clothes:**

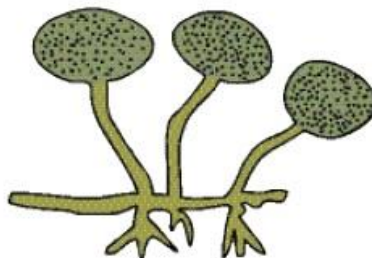
- 1) Spider                      2) Catfish                      3) Silver fish                      4) Ant

**65. Cinnabar is \_\_\_\_\_ sulphide**

- 1) Hg                      2) Pb                      3) Mg                      4) Ca

**BIOLOGY (Q.NO.66 TO 80)**

66. Which one of the following term is not a part of the nucleus?  
1) ribosome                      2) nucleolus                      3) chromosome                      4) gene
67. A suitable term for the various components of cells is  
1) tissue                      2) cell organelles                      3) chromosomes                      4) genes
68. The jelly-like fluid substance present in cells is called  
1) protoplasm   2) chromosome                      3) chloroplast                      4) cytoplasm
69. Identify the statement which is true for cells.  
1) Cells can be easily seen with naked eyes.  
2) Insect's egg is not a cell.  
3) A single cell can perform all the functions in a unicellular organism.  
4) The size and shape of cells is uniform in multicellular organisms
70. Sonal dug two pits, A and B, in her garden. In pit A, she put a polythene bag packed with some agricultural waste. In pit B, she dumped the same kind of waste but without packing it in a polythene bag. She, then covered both the pits with soil. What did she observe after a month?  
1) Waste in pit A degraded faster than that in pit B.  
2) Waste in pit B degraded faster than that in pit A.  
3) Waste in both pits degraded almost equally.  
4) Waste in both pits did not degrade at all.
71. Observe the below diagram and answer the following question



(a) Name the microorganism and the group to which it belongs.

(b) Name the food item on which the organism grows.

- 1)Aspergillus,Bread                      2)Penicillium,Rice
- 3)Rhizobium,Rice                      4) Rhizobium,Bread

**72. Breathing is a process that**  
**(i) provides O<sub>2</sub> to the body.**  
**(ii) breaks down food to release energy.**  
**(iii) helps the body to get rid of CO<sub>2</sub>.**  
**(iv) produces water in the cells.**

Which of the following gives the correct combination of functions of breathing?

- 1) (i) and (ii)                      2) (ii) and (iii)                      3) (i) and (iii)                      4) (ii) and (iv)

**73. Sometimes when we do heavy exercise, anaerobic respiration takes place in our muscle cells. What is produced during this process?**

- 1) alcohol and lactic acid                      2) alcohol and CO<sub>2</sub>
- 3) lactic acid and CO<sub>2</sub>                      4) lactic acid only

**74. The muscular tube through which stored urine is passed out of the body is called**

- 1) kidney                      2) ureter                      3) urethra                      4) urinary bladder

**75, Match Column I with Column II**

Column I	Column II
(a) Decomposers	(i) dead plant and animal tissues
(b) Canopy	(ii) habitats for wild life
(c) Porcupine	(iii) micro-organisms
(d) Humus	(iv) wild animal
(e) Forest	(v) branches of tall trees.

- 1)a-iii, b-v, c-iv, d-i, e-ii                      2)a-iii, b-ii, c-iv, d-i, e-v
- 3)a-ii, b-v, c-iv, d-i, e-iii                      4)a-iii, b-v, c-ii, d-i, e-iv

**76. They are pipe-like, consisting of a group of specialised cells. They transport substances and form a two-way traffic in plants. Which of the following terms qualify for the features mentioned above?**

- |                 |                    |
|-----------------|--------------------|
| 1) Xylem tissue | 2) Vascular tissue |
| 3) Root hairs   | 4) Phloem tissue   |

**77. In a tall tree, which force is responsible for pulling water and minerals from the soil?**

- |                        |                         |
|------------------------|-------------------------|
| 1) Gravitational force | 2) Transportation force |
| 3) Suction force       | 4) Conduction force     |

**78. Aquatic animals like fish excrete their wastes in gaseous form as**

- |           |             |            |             |
|-----------|-------------|------------|-------------|
| 1) Oxygen | 2) Hydrogen | 3) Ammonia | 4) Nitrogen |
|-----------|-------------|------------|-------------|

**79. Which of the following is not prepared from the wood obtained from forest?**

- |          |               |                |            |
|----------|---------------|----------------|------------|
| 1) Paper | 2) Thermocoal | 3) Matchsticks | 4) Plywood |
|----------|---------------|----------------|------------|

**80. Which of the following is not the name of a tree?**

- |         |        |              |            |
|---------|--------|--------------|------------|
| 1) Teak | 2) Sal | 3) Porcupine | 4) Kachnar |
|---------|--------|--------------|------------|