

CODE- **A**

## SAMPLE TEST PAPER

Time : 2 : 30 hours.

(Class VIII)

Maximum Marks : 240

Name :

Roll No.:

### INSTRUCTIONS

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.  
You are not allowed to leave the examination hall before the end of the test.

**[A] General :**

1. Attempt ALL the questions. Answer have to be marked on the **OMR** sheets
2. This question paper contains **60 questions**.
3. The question paper consists of **Four Parts Mathematics (Q.No. 1 to 20), Physics (Q.No. 21 to 35), Chemistry (Q.No. 36 to 50), & Mental Ability (Q.No. 51 to 60)**
4. Blank spaces are provided at the bottom of each page for rough work. No additional sheets will be provided for rough work.
5. Blank paper, clipboard, log tapes, silde rules, calculators, cellular phones, pagers and electronic gadgets in any form are **NOT** allowed.
6. Do not Tamper / mutilate the **OMR sheet** or this booklet.
7. Do not break the seals of the question-paper booklet before instructed to do so by the invigilator.
8. **SUBMIT** the OMR sheet to the invigilator after completing the test & take away the test paper with you.

**[B] Filling of OMR Sheet :**

9. In all the parts, each question will have 4 choices out of which **only one choice is correct**
10. Use only Black/Blue ball point pen for filling the OMR sheet.
11. On the OMR sheet, darken the appropriate bubble for each character of your name, Registration No., Phone No. etc.

**[C] Marking Scheme :**

12. For each right answer you will be **awarded 4 marks** if you darken the bubble corresponding to the correct answer and **zero marks** if no bubble is darkened. In case of bubbling of incorrect answer, **minus one (-1)** mark will be awarded.

*Best of Luck*

**PART - I (MATHEMATICS)****(SINGLE CORRECT ANSWER TYPE)**

This section contains (1-20) multiple choice questions. Each questions has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

- Q.1 Due to virus problems, Bill Gates computer changes one fraction into another in a particular pattern. It changes  $\frac{1}{3}$  into  $\frac{7}{3}$ ,  $\frac{1}{7}$  into 1 and  $\frac{2}{5}$  into  $\frac{14}{5}$ . What fraction will the computer change into  $\frac{3}{2}$ ?
- (A)  $\frac{1}{3}$                       (B)  $\frac{3}{14}$                       (C)  $\frac{2}{3}$                       (D)  $\frac{3}{98}$
- Q.2 If the present age of jacob's father is three times that of jacob, after five years, sum of their ages would be 70 years, then the present age of Jacob's father is :
- (A) 39 years                      (B) 45 years                      (C) 54 years                      (D) 60 years
- Q.3 A and B together have Rs. 1210. If  $\frac{4}{15}$  of A's amount is equal to  $\frac{2}{5}$  of B's amount, how much amount does B have?
- (A) ` 460                      (B) ` 484                      (C) ` 550                      (D) ` 664
- Q.4 In  $\triangle ABC$ ,  $m\angle BAC = 70^\circ$ . Point D lies on  $\overline{BC}$  such that  $\angle ACD$  become exterior of  $\triangle ABC$ . If  $m\angle ACD = 120^\circ$  then the value of  $\angle ABC$  is \_\_\_\_\_.
- (A)  $50^\circ$                       (B)  $60^\circ$                       (C)  $20^\circ$                       (D) None of these

**Space for rough work**

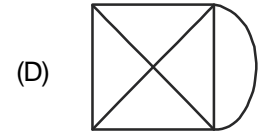
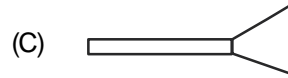
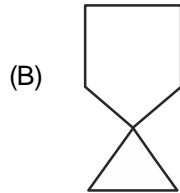
- Q.5 If the sum of interior angles of a polygon is 3 times the sum of its exterior angles, then the number of sides of the polygon is
- (A) 6 (B) 8 (C) 10 (D) 12
- Q.6 By what number  $\left(\frac{3}{4}\right)^{-3}$  should be divided so that quotient becomes 128 ?
- (A)  $\frac{1}{54}$  (B)  $\frac{1}{72}$  (C)  $\frac{1}{90}$  (D)  $\frac{1}{108}$
- Q.7 How many numbers in a set  $\left\{\frac{5}{4}, \frac{11}{8}, \frac{13}{5}, \frac{7}{4}, \frac{97}{59}\right\}$  are between 1 and 2 ?
- (A) 1 (B) 2 (C) 3 (D) 4
- Q.8 In the ratio of the areas of two circles is 100 : 1, then the ratio of their radii is :
- (A) 1 : 100 (B) 100 : 1 (C) 10 : 1 (D) 1 : 10
- Q.9 It is being given that  $(2^{32} + 1)$  is completely divisible by a whole number. Which of the following numbers is completely divisible by this number ?
- (A)  $(2^{16} + 1)$  (B)  $(2^{16} - 1)$  (C)  $(7 \times 2^{23})$  (D)  $(2^{96} + 1)$
- Q.10 A sold a commodity to B with 10% profit. If B resold the same commodity to A with a loss of 10%, then A will have
- (A) 1% loss (B) 11% loss (C) 1% profit (D) 11% profit

**Space for rough work**

Q.11 ABCD is a parallelogram in which diagonals AC and BD intersect at point O. If  $\angle BAO = 20^\circ$ ,  $\angle COD = 133^\circ$ , then the value of  $\angle ODC$  is

- (A)  $25^\circ$  (B)  $22^\circ$  (C)  $35^\circ$  (D)  $27^\circ$

Q.12 The closed curve which is also a polygon is



Q.13 The angle between the two altitudes of a parallelogram through the same vertex of an obtuse angle of the parallelogram is  $30^\circ$ . The measure of the obtuse angle is

- (A)  $100^\circ$  (B)  $150^\circ$  (C)  $105^\circ$  (D)  $120^\circ$

Q.14 Three numbers are in the ratio 2 : 3 : 4, if sum of their cubes is 33957, then the sum of numbers is

- (A) 14 (B) 21 (C) 28 (D) 63

Q.15 A group of students decided to collect as many paise from each member of group as is the number of members. If the total collection amounts to Rs. 59.29, the number of the member is the group is :

- (A) 57 (B) 67 (C) 77 (D) 87

**Space for rough work**

- Q.16 How many two-digit numbers satisfy this property.: The last digit (unit's digit) of the square of the two-digit numbers is 8 ?
- (A) 1 (B) 2 (C) 3 (D) None of these
- Q.17 The largest 4 digit number exactly divisible by 88 is :
- (A) 9944 (B) 9768 (C) 9988 (D) 8888
- Q.18 If the sum of interior angles of a polygon is 3 times the sum of its exterior angles, then the number of sides of the polygon is
- (A) 6 (B) 8 (C) 10 (D) 12
- Q.19 The value of  $\sqrt{5 + \sqrt{11 + \sqrt{19 + \sqrt{29 + \sqrt{49}}}}}$  on simplifying is
- (A) 3 (B) 2 (C) 1 (D) 4
- Q.20 Find the value of given mixed fraction and express in decimal form.
- $$\frac{6\frac{1}{4} - 5\frac{3}{4} + 6\frac{2}{4}}{4\frac{1}{5} + 6\frac{2}{5} - 2\frac{3}{5}}$$
- (A) 0.875 (B) 0.675 (C) 1.225 (D) 0.450

**Space for rough work**

**PART - II (PHYSICS)****(SINGLE CORRECT ANSWER TYPE)**

This section contains (21-35) multiple choice questions. Each questions has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

Q.21 The specific heat capacity of water is :

- (A)  $4200 \text{ J kg}^{-1} \text{ K}^{-1}$  (B)  $420 \text{ J g}^{-1} \text{ K}^{-1}$   
(C)  $0.42 \text{ J g}^{-1} \text{ K}^{-1}$  (D)  $4.2 \text{ J kg}^{-1} \text{ K}^{-1}$

Q.22 Which of the following is not a unit of distance ?

- (A) Angstrom (B) Parsec (C) Light year (D) Leap year

Q.23 Four bodies are of  $m$ ,  $2m$ ,  $3m$ ,  $4m$ . In which body acceleration produced will be maximum on applying equal amount of force an each one of them.

- (A)  $m$  (B)  $2m$  (C)  $3m$  (D)  $4m$

Q.24 Light is :

- (A) an electromagnetic radiation (B) a transverse wave  
(C) massless (D) all of the above

*Space for rough work*

- Q.25 A horizontal force of 100 N acts on a body which is at rest. What is the force of friction between the body and the floor ?
- (A) 50 N                      (B) 100 N                      (C) 150 N                      (D) 200 N
- Q.26 Electric current is :
- (A) flow of charge per unit time                      (B) work done per unit time  
(C) resistance per unit time                      (D) all of the above
- Q.27 A ball released from a height falls 5 m in one second. In 4 seconds it falls through
- (A) 20 m                      (B) 1.25 m                      (C) 40 m                      (D) 80 m
- Q.28 The acceleration produced by a force of 5 N on a mass of 10 kg is
- (A)  $5 \text{ m/s}^2$                       (B)  $2 \text{ m/s}^2$                       (C)  $0.5 \text{ ms}^{-2}$                       (D)  $5 \text{ cm s}^{-2}$
- Q.29 An electric motor converts
- (A) electrical energy into heat energy                      (B) electrical energy into mechanical energy  
(C) mechanical energy into electrical energy                      (D) mechanical energy into heat energy
- Q.30 An athlete completes one round of a circular track of radius R in 40 s. His displacement at the end of 2 minutes will be :
- (A)  $2\pi R$                       (B)  $6\pi R$                       (C)  $2R$                       (D) zero

*Space for rough work*

- Q.31 For a real object, a convex mirror always forms an image which is
- (A) virtual and erect (B) real and magnified  
(C) real and inverted (D) virtual and inverted
- Q.32 Which of the following are vector quantities ?
- (A) Speed (B) Distance  
(C) Time (D) Acceleration
- Q.33 Sound waves in air are :
- (A) Longitudinal (B) transverse  
(C) Logitudinal as well as transverse (D) neither longitudinal nor transverse
- Q.34 The heat in the sunlight is due to
- (A) visible radiation (B) entire solar radiation  
(C) ultra-violet radiation (D) infra-red radiation
- Q.35 Which of the colours of visible light has minimum wavelength ?
- (A) Violet (B) Red  
(C) Yellow (D) Green

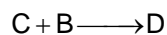
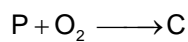
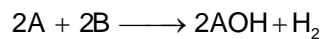
*Space for rough work*



**PART - III (CHEMISTRY)****(SINGLE CORRECT ANSWER TYPE)**

This section contains (36-50) multiple choice questions. Each questions has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

Q.36 Study the following equations and select the correct option.



	A	B	C	D
(A)	S	H <sub>2</sub> O	POH	H <sub>3</sub> PO <sub>3</sub>
(B)	Na	H <sub>2</sub> O	PO <sub>3</sub>	P <sub>3</sub> O <sub>3</sub>
(C)	K	H <sub>2</sub> O	P <sub>2</sub> O <sub>5</sub>	H <sub>3</sub> PO <sub>4</sub>
(D)	C	H <sub>2</sub> O	P <sub>2</sub> O <sub>5</sub>	P <sub>2</sub> O <sub>5</sub>

Q.37 The most electropositive element in periodic table is :

(A) F

(B) Na

(C) K

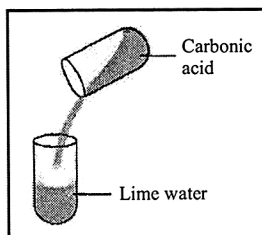
(D) Cs

*Space for rough work*

- Q.38 Which of the following metal is found in native state ?  
(A) Sodium (B) Zinc (C) Gold (D) Iron
- Q.39 The froth floatation process is based upon  
(A) The differences in the specific gravity of ore and gangue particles  
(B) The magnetic properties of gangue and ore  
(C) Preferential wetting of gangue particles by oil  
(D) Preferential wetting of ore particles by oil
- Q.40 Valency of potassium (K) in  $K_4Fe(CN)_6$  is :  
(A) 2 (B) 1 (C)  $\frac{2}{3}$  (D) 4
- Q.41 Coal gas is a mixture of :  
(A) CO and  $H_2$  only  
(B)  $H_2$  saturated and unsaturated hydrocarbons, CO,  $CO_2$ ,  $N_2$  and  $O_2$   
(C) Saturated and unsaturated hydrocarbons only  
(D) CO,  $CO_2$  and  $CH_4$  only
- Q.42 Main constituents of coal gas are  
(A)  $H_2O$ ,  $C_2H_6$ ,  $O_2$  (B)  $CH_4$ ,  $CO_2$ ,  $O_2$   
(C)  $CH_4$ ,  $H_2$ , CO (D)  $C_2H_6$ ,  $N_2$ ,  $O_2$

**Space for rough work**

Q.43 Observe the given figure carefully and select the correct option.



- I. A white precipitate is obtained.  
II. Effervescence is observed in the test tube containing lime water.
- (A) II only (B) I only  
(C) Both I and II (D) Neither I nor II

Q.44 The non metal which is a liquid at room temperature is

- (A) chlorine (B) nitrogen  
(C) bromine (D) hydrogen

Q.45 During evaporation of liquid

- (A) the temperature of the liquid falls. (B) the temperature of the liquid rises.  
(C) the temperature of the liquid remains unchanged. (D) all statements are wrong.

Q.46 The magnitude of charge on an electron in coulomb is

- (A)  $1.76 \times 10^{11}$  (B)  $1.6 \times 10^{19}$  (C)  $9.1 \times 10^{11}$  (D) None of these

*Space for rough work*

- Q.47 Chlorine has atomic mass 35.5. The mass is fractional due to :
- (A) existence of electrons  
(B) existence of isotopes having different masses  
(C) rapid conversion of proton into neutron and vice-versa in nucleus  
(D) fractional atomic masses are meaningless
- Q.48 Which of the following statements is/are correct about an aqueous solution of an acid and of a base ?
- (i) Higher the pH, stronger the acid                      (ii) Higher the pH, weaker the acid  
(iii) Lower the pH, stronger the base                      (iv) Lower the pH, weaker the base
- (A) (i) and (iii)                      (B) (ii) and (iii)                      (C) (i) and (iv)                      (D) (ii) and (iv)
- Q.49 Which of the following is not an example of physical change ?
- (A) Dissolving sugar in water                      (B) Casting iron in moulds  
(C) Setting of cement                      (D) Magnetisation of iron
- Q.50 In the reaction  $\text{Mg} + \text{Cl}_2 \rightarrow \text{MgCl}_2$  Chlorine may be regarded as
- (A) an oxidising agent                      (B) a reducing agent  
(C) a catalyst                      (D) providing an inert medium

*Space for rough work*

**PART - IV (MENTAL ABILITY)****(SINGLE CORRECT ANSWER TYPE)**

This section contains (51-60) multiple choice questions. Each questions has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

- Q.51 A wooden cube is painted with purple on all the four adjoining faces and yellow on two opposite faces then it is into 216 identical smaller cubes then how many cubes are there having two different colour on them.  
 (A) 24 (B) 20 (C) 40 (D) 48
- Q.52 If 'EAT' is written as 22267. How will you write LIP.  
 (A) 141710 (B) 91211 (C) 151811 (D) 81012
- Q.53 Given interchanges : Signs + and  $\times$  and numbers 4 and 5. Now which of the following equation is correct ?  
 (A)  $5 \times 4 + 20 = 40$  (B)  $5 \times 4 + 20 = 45$   
 (C)  $5 \times 4 + 20 = 104$  (D)  $5 \times 4 + 20 = 95$
- Q.54 In a certain code language PERIMETER is coded as ODQHLEFUS. What is the code of CHARACTER.  
 (A) GBZQBDFUS (B) BGZQZDFUS  
 (C) SFUDBQZGB (D) BGZBDQFUS
- Q.55 One number is missing in the series. You have to understand the pattern of the series and insert the number.  
 6, 126, ?, 9, 108, 12, 7, 133, 19, 12, 72, 6  
 (A) 21 (B) 23 (C) 30 (D) 35
- Q.56 Where is fort Willian Located.  
 (A) Madras (B) Bombay (C) Jhansi (D) Calcutta

**Space for rough work**

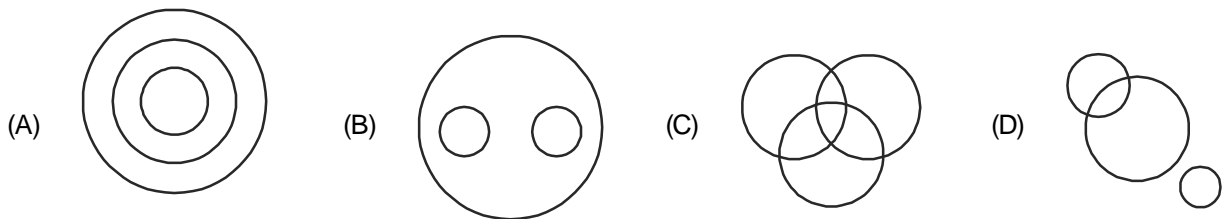
- Q.57 A man is facing North-West. He turns  $90^\circ$  in the clockwise direction and then  $180^\circ$  in the anticlockwise direction and then another  $90^\circ$  in the same direction. Which direction is he facing now.
- (A) South (B) South - West (C) West (D) South-East

- Q.58 Find the missing character (?)

5	8	11
7	?	4
3	2	10
71	98	127

- (A) 8 (B) 6 (C) 9 (D) 2
- Q.59 Choose the Venn diagram which best illustrates the three given classes in question :

State, Country, City



- Q.60 Q's mother is sister of P and daughter of M. S is daughter of P and sister of T. How is M related to T ?
- (A) Grandmother (B) Father  
(C) Grandfather (D) Granfather or Grandmother

**Space for rough work**