

SAMPLE PAPER

Class : VIII

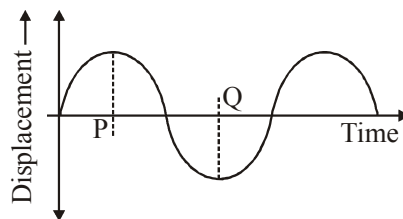
Time allowed : 2 hours

Maximum Marks : 240

GENERAL INSTRUCTIONS

- The question paper consists of '60' objective type questions. Each question carry 4 marks and all of them are compulsory.
- Each question contains four alternatives out of which only **ONE** is correct.
- There is **NEGATIVE** marking. **1 mark** will be deducted for each wrong answer.

- Q.1 The force exerted by the floor of an elevator on the foot of a person standing there, is more than his weight, if the elevator is
(A) going down and slowing down (B) going up and speeding up
(C) going up and slowing down (D) either (A) and (B)
- Q.2 Consider an elevator moving downwards with an acceleration a , the force exerted by a passenger of mass m on the floor of the elevator is
(A) ma (B) $ma - mg$ (C) $mg - ma$ (D) $mg + ma$
- Q.3 A block of metal weight 5 N in air and 2 N when immeresed in a liquid. The buoyant force is
(A) 3 N (B) 5 N (C) 7 N (D) Zero
- Q.4 A girl stands on a box having 60 cm length, 40 cm breadth and 20 cm height in three ways. Pressure exerted by the brick will be
(A) max. when length and breadth form the base (B) max. when breadth and height form the base
(C) max. when height and length form the base (D) the same in all the above three cases
- Q.5 A cylinder of certain mass placed in vertical position on a table. If the height of the cylinder is 10 cm and radius of cross-section is 4 cm such that the pressure acting on the table is 21560 Nm^{-2} , then find the mass of the cylinder
(A) 108.22 kg (B) 6.72 kg (C) 35.05 kg (D) 11.06 kg
- Q.6 A 20 kg block is initially at rest. A 75 N force is required to set the block in motion. The coefficient of static friction is ($g = 10 \text{ m/s}^2$)
(A) 0.6 (B) 0.52 (C) 0.44 (D) 0.375
- Q.7 In the diagram below, the interval PQ represents



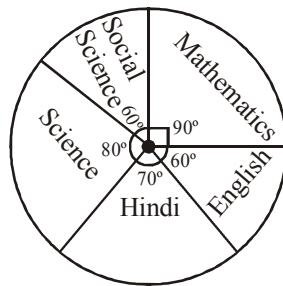
- (A) wavelength/2 (B) wavelength (C) $2 \times$ amplitude (D) time period/2

- Q.8 A wave source produces 20 crests and 20 troughs in 0.2 sec. Find the frequency of the wave
 (A) 200 Hz (B) 500 Hz (C) 100 Hz (D) 300 Hz
- Q.9 Phenol and formaldehyde are combined to form _____.
 (A) Melamine (B) Teflon (C) Bakelite (D) Nylon
- Q.10 Statement : 1 Rayon is called semi-synthetic fibre.
 Statement : 2 Rayon is prepared from natural unit called cellulose, which is obtained from wood pulp along with chemicals.
 (A) Statement 1 and 2 is true but statement 2 is not the correct explanation of statement 1
 (B) Statement 1 and 2 is true and statement 2 is the correct explanation of statement 1
 (C) Statement 1 is true, but statement 2 is false
 (D) Both the statement are false
- Q.11 Match the following :
- | Column I | Column II |
|--|--|
| (P) Rayon | (i) non-stick coating |
| (Q) Teflon | (ii) used in parachutes |
| (R) Acrylic | (iii) used instead in place of asilk |
| (S) Nylon | (iv) synthetic wool |
| (A) (P)–(iii), (Q)–(i), (R)–(ii), (S)–(iv) | (B) (P)–(i), (Q)–(ii), (R)–(iii), (S)–(iv) |
| (C) (P)–(iii), (Q)–(i), (R)–(iv), (S)–(ii) | (D) (P)–(iii), (Q)–(iv), (R)–(i), (S)–(ii) |
- Q.12 Thermocol is obtained
 (A) Polystyrene (B) PVC (C) Polythene (D) Melamine
- Q.13 Which non-metal is used as electrode in the reaction of cells ?
 (A) Oxygen (B) Sulphur (C) Carbon (D) Iodine
- Q.14 Which of the following elements are in liquid state ?
 (A) Mercury (B) Bromine (C) Caesium (D) All of these
- Q.15 Which will the turn blue colour of copper sulphate solution into colourless ?
 (A) Iron (B) Zinc (C) Silver (D) Gold
- Q.16 Galvanised iron has a coating of _____ on its surface.
 (A) Tin (B) Zinc (C) Copper (D) Aluminium
- Q.17 Which of these is not related to endoplasmic reticulum ?
 (A) It behaves as transport channel for proteins between nucleus and cytoplasm
 (B) It transports materials between various regions in cytoplasm
 (C) It can be the site of energy generation
 (D) It can be the site for some biochemical activities of the cell.
- Q.18 What would happen, if all the oxygen present in the environment is converted to ozone ?
 (A) We will be protected more
 (B) It will become poisonous and kill living forms
 (C) Ozone is not stable, hence it will be toxic
 (D) It will help harmful sun radiations to reach earth and damage many life forms.

- Q.19 Water pollution is mainly caused by
 (A) wastes being dumped in water bodies without treatment
 (B) chlorofluorocarbons
 (C) vehicular fumes
 (D) global warming
- Q.20 Which of the following is incorrect pair ?
 (A) Nucleus-Brain of the cell (B) Mitochondria-Power house of the cell
 (C) Chloroplast-Kitchen of the cell (D) Lysosome-Protein factory
- Q.21 Find out the correct sentence about manure
 (i) Manure contains large quantities of organic matter and small quantities of nutrients
 (ii) It increases the water holding capacity of sandy soil
 (iii) It helps in draining out of excess of water from clayey soil
 (iv) Its excessive use pollutes environment because it is made of animal excretory waste.
 (A) (i) and (ii) (B) (i) and (ii) (C) (ii) and (iii) (D) (iii) and (iv)
- Q.22 Which hormone controls the blood pressure in emergency?
 (A) Thyroxine (B) Prolactin (C) Insulin (D) Adrenaline
- Q.23 Weeds affect the crop plants by
 (A) Killing of plants in field before they grow
 (B) Dominating the plants to grow
 (C) Competing for various resources of crops (plants) causing low availability of nutrients
 (D) All of the above.
- Q.24 The fusion of male and female gametes usually takes place inside the
 (A) uterus (B) ovary (C) fallopian tubes (D) vagina
- Q.25 Study the information given below.
 P - An ovum is discharged by the ovary
 Q - An embryo is implanted in the uterus
 R - Fusion of male and female gametes
 Which processes do P, Q, and R represent ?
- | | P | Q | R |
|-----|---------------|---------------|---------------|
| (A) | Ovulation | Implantation | Fertilization |
| (B) | Fertilization | Implantation | Ovulation |
| (C) | Ovulation | Fertilization | Implantation |
| (D) | Implantation | Ovulation | Fertilization |
- Q.26 Hormones are transported from the place of origin to the place of target by :
 (I) ducts (II) blood (III) nerves
 (A) I only & II (B) II only (C) III only (D) I, II and III
- Q.27 If $\left(-\frac{4}{9}\right) \div p = \frac{8}{15}$, then p is
 (A) $\frac{15}{8}$ (B) $-\frac{5}{6}$ (C) $-\frac{6}{5}$ (D) $-\frac{4}{9}$

- Q.28 What number should be added to $-\frac{5}{4}$ to get its multiplicative inverse ?
- (A) $\frac{4}{5}$ (B) $-\frac{4}{5}$ (C) $\frac{20}{9}$ (D) $\frac{9}{20}$
- Q.29 A class starts at 10 a.m. and lasts at 1 : 27 p.m. Four periods are held during this interval. After every period, 5 minutes are given free to the students and last period is over exactly at 1 : 27 p.m. The exact duration of each period is
- (A) 49 minutes (B) 48 minutes (C) 50 minutes (D) 52 minutes
- Q.30 Sum of the consecutive multiples of 6 is 666. One of these multiple is
- (A) 210 (B) 222 (C) 234 (D) 240
- Q.31 A rectangular paper when folded into two congruent rectangles had a perimeter of 34 cm for each part folded along one set of sides and the same is 38 cm when folded along the other set of sides. The area of the paper is (in cm^2) is
- (A) 140 (B) 240 (C) 180 (D) 280

Direction (Q.32 & Q.33) : The following pie chart gives the marks obtained by a student in different subjects - English, Hindi, Mathematics, Science and Social Science in a examination.



Assuming that the total marks obtained for the examination are 540.

- Q.32 The marks scored in Hindi and Mathematics exceeds the marks scored in English and Social Science by
- (A) 30 (B) 50 (C) 70 (D) 60
- Q.33 The Subject in which student scored 105 marks is
- (A) English (B) Hindi (C) Scinece (D) Social Science
- Q.34 $\sqrt{176 + \sqrt{2401}}$ is equal to
- (A) 12 (B) 13 (C) 14 (D) 15
- Q.35 If $x^2 - ax + 36 = (x - 4)(x - 9)$ then a is equal to
- (A) -13 (B) 13 (C) 16 (D) -16
- Q.36 The lenth of the longest rod that can be placed in the room 30 m long, 24 m broad and 18 m high
- (A) $15\sqrt{2}$ m (B) $30\sqrt{2}$ m (C) $45\sqrt{2}$ m (D) none of these
- Q.37 If x, y, z are positvie rational numbers, then the value of $\sqrt{x^{-1}y} \cdot \sqrt{y^{-1}z} \cdot \sqrt{z^{-1}x}$ is equal to
- (A) $\frac{1}{xyz}$ (B) $x^2 y^2 z^2$ (C) 1 (D) xyz

Q.38 A certain number of men can finish a piece of work in 100 days. If however, there were 10 men less, it would take 10 days more for the work to be finished. How many men were originally there ?
 (A) 90 (B) 100 (C) 110 (D) 120

Q.39 $(a + b)^2 - (a - b)^2$ is equal to
 (A) $2ab$ (B) $-2ab$ (C) $2(a^2 - b^2)$ (D) $4ab$

Q.40 H.C.F of $6abc$, $25ab^2$ and $21a^2bc^2$ is
 (A) $6abc$ (B) $6ab^2c$ (C) $3abc$ (D) None of these

Q.41 In the following cryptarithms value of Q is

$$\begin{array}{r} PQ \\ \times P3 \\ \hline 57Q \end{array}$$

(A) 2 (B) 5 (C) 4 (D) 3

Q.42 Suppose you walk from home to the bus stand at 4 km/h and immediately return at x km/h. If the average speed is 6 km/h then x is
 (A) 8 km/h
 (B) 10 km/h
 (C) 12 km/h
 (D) cannot be determined unless the distance from home to bus stand is known.

Direction (Q.43 & Q.44): In each of the following questions, a number series is given which is in accordance with some certain rule. Find out the correct answer for the place of sign of interrogation out of the given alternatives

Q.43 1, 4, 5, 9, 14, 23, 37, ?
 (A) 50 (B) 58 (C) 60 (D) 74

Q.44 1, 8, 3, 16, 5, 32, 7, ?, 9
 (A) 49 (B) 64 (C) 68 (D) 44

Direction (Q.45): In each question below are given two statement followed by two conclusion numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decided which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Q.45 Statements : Morning walks are good for health.
 Conclusions : I. All healthy people go for morning walks.
 II. Evening walks are harmful.
 (A) if only conclusion I follows
 (B) if only conclusion II follows
 (C) if either conclusion I or II follows
 (D) if neither conclusion I nor II follows

Direction (Q.46) : In the following question, a series of letters and number is given, the terms of which follow certain definite pattern in groups. However, some terms in the series are missing, which are given in the same order as one of the alternatives below the series. Choose the correct alternative.

Q.46 F _ U 6 _ 9 I _ T 7 _ 20 4 D 23

- (A) 11, G, 16, K, U (B) 13, H, 15, L, M (C) 17, J, 19, R, S (D) 21, R, 18, G, W

Direction (Q.47) : In following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose out the odd one.

Q.47 (A) Fox (B) Yak (C) Bear (D) Kangaroo

Q.48 If in a certain code, DECEMBER is written as ERMBCED. Which word will be written as ERMBVENO in that code?

- (A) OVEMBERN (B) REBMEVON (C) VEERNOMB (D) NOVEMBER

Q.49 Five friends A, B, C, D and E are standing in a row facing South but not necessarily in the same order. Only B is between A and E, C is immediate right to E and D is immediate left to A. On the basis of above information, which of the following statements is definitely true?

- (A) B is to the left of A. (B) D is third to the left of E.
(C) B is to the right of E. (D) A is second to the left of C.

Direction (Q.50) : Choose the odd numeral pair/group in each of the following questions.

Q.50 (A) 15 : 63 (B) 22 : 91 (C) 23 : 95 (D) 31 : 97

Q.51 If $8 \div 5 = 6425$

$$9 \div 6 = 8136$$

Then $4 \div 3 = ?$

- (A) 1609 (B) 1690 (C) 4381 (D) 4421

Q.52 If the first day of year (other than the leap year) was Friday, then which was the last day of that year ?

- (A) Monday (B) Friday (C) Saturday (D) Sunday

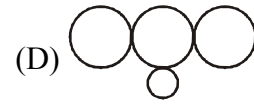
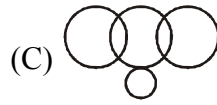
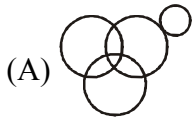
Q.53 E is the son of A, D is the son of B, E is married to C, C is B's daughter, how is D related to E

- (A) brother (B) uncle (C) father-in-law (D) none of these

Q.54 At a dinner party every two guests used a bowl of rice between them, every three guests used a bowl of dal between them and every four used a bowl of meat between them. There were altogether 65 dishes. How many guests were present at the party?

- (A) 60 (B) 65 (C) 90 (D) None of these

Q.55 In a class of 46 students, 18 played football, 17 played cricket including 6 who played football. 16 students played hockey including 4 who played cricket, but not football. Five students played carrom but no outdoor games. Which of the following figures represents these facts?



Q.56 Which one of the four interchange in signs and numbers would make the given equation correct?

$(3 \div 4) + 2 = 2$

- (A) + and \div , 2 and 3 (B) + and \div , 2 and 4 (C) + and \div , 3 and 4 (D) No interchange, 3 and 4

Q.57 If ‘ \div ’ stands for ‘division’, ‘+’ for multiplication, ‘ \div ’ for ‘subtraction’ and ‘ \times ’ for ‘addition’, which one of the following equations is correct?

(A) $6 + 20 - 12 \div 7 - 1 = 38$

(B) $6 - 20 \div 12 \times 7 + 1 = 57$

(C) $6 + 20 - 12 \div 7 \times 1 = 62$

(D) $6 \div 20 \times 12 + 7 - 1 = 70$

Q.58 Which of the given options fits correctly in the blank space to exhibit the similar pattern in each of the three sets below?

84

81

88

14 12

18 9

? 11

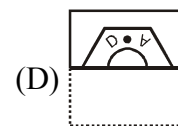
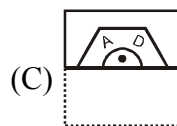
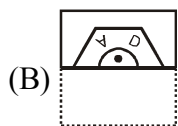
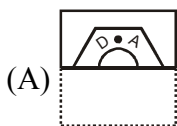
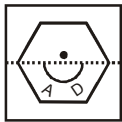
(A) 8

(B) 12

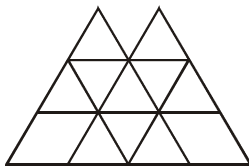
(C) 16

(D) 18

Q.59 In the following problem, a square transparent sheet with a pattern is given. Figure out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



Q.60 In the following question, find the number of triangle in the given figure.



(A) 16

(B) 18

(C) 14

(D) 15