CLASS-X
SAMPLE PAPER
PAPER-1
PAPER CODE: A

Reg. No.


Time allowed : 2 hours
Maximum Marks : 340

## Please read the instructions in Question Booklet before answering the question paper. <br> INSTRUCTIONS

1. The question paper has '16' printed pages. Please ensure that the copy of the question paper you have received contains all pages.
2. Before starting the paper, fill up the required details in the blank space provided in the answer sheet.
3. Write your name and Seven digit Reg. No. in the space provided at the top of this booklet.
4. The question paper consists of ' 85 ' objective type questions. Each question carry 4 marks and all of them are compulsory.
5. Each question contains four alternatives out of which only ONE is correct.
6. Indicate the correct answer for each question by filling appropriate bubble in your answer sheet.
7. The answers of the questions must be marked by shading the circle against the question by dark Black Ball point Pen only.
8. For rough work, use the space provided at the bottom of each page. No extra sheet will be provided for rough work and you are not supposed to bring the same.
9. Use of blank papers, clip boards, log tables, calculator, slide rule, mobile or any other electronic gadgets in any form is "NOT PERMISSIBLE".
10. You must not carry mobile phone even if you have the same, give it to your Invigilator before commencement of the test and take it back from him/her after the exam.
11. The Answer Sheet will be checked through computer hence the answer of the questions must be marked by shading the circles against the question by dark Black Ball point Pen only.

For example if only ' 3 ' choice is correct then, the correct method for filling the bubble is

the wrong method for filling the bubble are
(a)
(b)
(c)


2


2



3
4


34

Tick Mark

Cross Mark

Half filled or Semi Dark

The answer of the questions in wrong or any other manner will be treated as wrong.
USEFUL DATA

Take $g=10 \mathrm{~m} / \mathbf{s}^{2}$ wherever required.
Q. $1 \quad$ A wire of resistance $R$ is coiled in the form of circle. Then the equivalent resistance between points $A$ and $B$ is

(1) $\frac{R}{16} \Omega$
(2) $\frac{3 R}{16} \Omega$
(3) $\frac{3 R}{4} \Omega$
(4) $\frac{4 R}{3} \Omega$
Q. 2 A cylindrical wire of radius $r$ and another cylindrical wire of radius 2 r , both made up of same material and length are connected in series to each other. This combination is connected across a battery. Then the ratio of the heat produced per second in the two wires is
(1) 4
(2) 2
(3) 0.50
(4) 0.25
Q. 3 Two bulbs of 40 W and 60 W are connected as shown in the figure, then the ratio of heat generated in bulbs $B_{1}$ and $B_{2}$ is

(1) $\frac{2}{3}$
(2) $\frac{3}{2}$
(3) $\frac{5}{3}$
(4) $\frac{5}{2}$
Q. 4 The equivalent resistance between the two points $A$ and $B$, as shown in circuit is

(1) $10 \Omega$
(2) $20 \Omega$
(3) $30 \Omega$
(4) $40 \Omega$
Q. 5 In a circular coil, the current is found to be flowing in anticlockwise direction. In which direction is the magnetic field produced at a point on the axis of the coil?
(1) It is parallel to the plane of the coil.
(2) It is perpendicular to the plane of the coil.
(3) It is above the plane of the coil.
(4) It is below the plane of the coil.
Q. 6 Which of the field patterns given below is valid for both electric and magnetic fields?
(1)

(2)

(3)

(4)


Classify the following fuels in ascending order of their calorific values.
(i) Coal
(ii) Dung cake
(iii) Kerosene oil
(iv) Hydrogen gas
(1) (ii), (i), (iii), (iv)
(2) (ii), (iv), (iii), (i)
(3) (iv), (iii), (i), (ii)
(4) (iii), (ii), (i), (iv)
Q. 8 An object O is placed at the position shown in the given figure.


What are the characteristics of the image formed?
(1) Real, inverted and diminished
(2) Real, inverted and enlarged
(3) Virtual, inverted and diminished
(4) Virtual, upright and enlarged
Q. 9 A wire carries a current of 2 A . What is the charge that has flowed through its cross-section in 1 sec ? How many electrons does this correspond to?
(1) $2 \mathrm{C}, 1.25 \times 10^{19}$
(2) $2 \mathrm{C}, 12.5 \times 10^{19}$
(3) 4 C, $1.25 \times 10^{18}$
(4) $12 \mathrm{C}, 1.25 \times 10^{19}$
Q. 10 The ratio of electric force of repulsion between two electrons to two protons separated by the same distance in air is
(1) $10^{0}$
(2) $10^{6}$
(3) $10^{4}$
(4) $10^{2}$
Q. 11 The equation, $E=\Delta \mathrm{mc}^{2}$ gives the amount of energy released as a result of nuclear fission. What does $\Delta \mathrm{m}$ stand for?
(1) The original mass of the nuclei
(2) The final total mass of the nuclei
(3) The increase in total mass of the nuclei
(4) The difference in mass between the original nuclei and the product nuclei
Q. 12 A man of length $h$ requires a mirror of length at least equal to, to see his own complete image
(1) $\frac{h}{4}$
(2) $\frac{\mathrm{h}}{3}$
(3) $\frac{\mathrm{h}}{2}$
(4) h
Q. 13 The light reflected by a plane mirror may form a real image
(1) If the rays incident on the mirror are diverging
(2) If the rays incident on the mirror are converging
(3) If the object is placed very close to the mirror
(4) Under no circumstances
Q. 14 A point object O is placed between two plane mirrors as shown in fig. The distance of the first three images formed by mirror $\mathrm{M}_{2}$ from it are

(1) $2 \mathrm{~mm}, 8 \mathrm{~mm}, 18 \mathrm{~mm}$
(2) $2 \mathrm{~mm}, 18 \mathrm{~mm}, 28 \mathrm{~mm}$
(3) $2 \mathrm{~mm}, 18 \mathrm{~mm}, 22 \mathrm{~mm}$
(4) $2 \mathrm{~mm}, 18 \mathrm{~mm}, 58 \mathrm{~mm}$
Q. 15 A person can see clearly objects at 100 cm distance. If he wants to see objects at 40 cm distance, then the power of the lens he shall require is
(1) +1.5 D
(2) $-1.5 D$
(3) +3.0 D
(4) -3.0 D
Q. 16 Which of the following does not follow the Dobereiner's Triad?
(1) Li, Na, K
(2) $\mathrm{Ca}, \mathrm{Sr}, \mathrm{Ba}$
(3) $\mathrm{Cl}, \mathrm{Br}, \mathrm{I}$
(4) F, Cl, I
Q. 17 In the reaction
$\mathrm{BaCl}_{2}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4} \longrightarrow \mathrm{BaSO}_{4}+2 \mathrm{HCl}$, the compound precipitated is
(1) $\mathrm{H}_{2} \mathrm{SO}_{4}$
(2) $\mathrm{BaCl}_{2}$
(3) HCl
(4) $\mathrm{BaSO}_{4}$
Q. 18 The volume of oxygen at STP required to burn 2.4 g of carbon completely is :
(1) 1.12 L
(2) 8.96 L
(3) 2.24 L
(4) 4.48 L
Q. 19 In the chemical reaction,
$\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}+\mathrm{xH}_{2} \mathrm{SO}_{4}+\mathrm{ySO}_{2} \longrightarrow$ $\mathrm{K}_{2} \mathrm{SO}_{4}+\mathrm{Cr}_{2}\left(\mathrm{SO}_{4}\right)_{3}+\mathrm{zH}_{2} \mathrm{O}$.
$\mathrm{x}, \mathrm{y}$ and z are :
(1) $1,3,1$
(2) $4,1,4$
(3) $3,2,3$
(4) $2,1,2$
Q. 20 In the reaction
$\mathrm{FeSO}_{4}+\mathrm{x} \longrightarrow \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{Fe}(\mathrm{OH})_{2}$, x is :
(1) $\mathrm{Na}_{2} \mathrm{SO}_{4}$
(2) $\mathrm{H}_{2} \mathrm{SO}_{4}$
(3) NaOH
(4) None of these
Q. 21 Reaction
$\mathrm{CuCl}_{2}(\mathrm{aq}) \xrightarrow{\text { Electricity }} \mathrm{Cu}(\mathrm{s})+\mathrm{Cl}_{2}(\mathrm{~g})$
is an example of :
(1) combination reaction
(2) displacement reaction
(3) precipitation reaction
(4) decomposition reaction
Q. 22 When $\mathrm{Cl}_{2}$ reacts with aqueous $\mathrm{Ca}(\mathrm{OH})_{2}$ in cold condition then oxidation number of chlorine changes from 0 to:
(1) $-1+1$
(2) $+1+1$
(3) $-2,+1$
(4) $+2,-1$
Q. 23 When lead nitrate crystals are heated:
(1) A colourless gas is evolved and a yellow residue is left behind
(2) A brown gas is evolved and a white residue is left behind
(3) A greenish yellow gas is evolved and a brown residue is left behind
(4) A reddish brown gas is evolved and a yellow residue is left behind.
Q. 24 The reaction of burning of carbon in oxygen is represented by the equation :
$\mathrm{C}_{(\mathrm{s})}+\mathrm{O}_{2(\mathrm{~g})} \longrightarrow \mathrm{CO}_{2(\mathrm{~g})}$ Heat + Light
When 9.0 g of solid carbon is burnt in 16.0 g of oxygen gas 22.0 g of carbon dioxide is produced. The mass of carbon dioxide gas formed on burning of 3.0 g of carbon in 32.0 g of oxygen would be (Note : atomic mass of $\mathrm{C}=12.0 \mathrm{u}, \mathrm{O}=16.0 \mathrm{u}$ )
(1) 6.60 g
(2) 7.33 g
(3) 8.25 g
(4) 11.00 g
Q. 25 The law of conservation of mass is valid for which of the following?
(a) Reactions involving oxidation
(b) Nuclear reactions.
(c) Endothermic reactions
(1) (a) and (c)
(2) (a) and (b)
(3) (b) and (c)
(4) (b) only
Q. 26 Which of the following set of ions is present in sodium sulphate $\left(\mathrm{Na}_{2} \mathrm{SO}_{4}\right)$ ?
(1) $\mathrm{Na}^{+}, \mathrm{SO}_{4}^{-2}$
(2) $\mathrm{Na}^{+4}, \mathrm{SO}^{-2}$
(3) $\mathrm{Na}^{+2}, \mathrm{SO}_{4}$
(4) $\mathrm{Na}^{+}, \mathrm{SO}_{4}^{-}$
Q. 27 Which of the following is used for dissolution of gold?
(1) hydrochloric acid
(2) sulphuric acid
(3) nitric acid
(4) aqua regia
Q. 28 A nonmetallic element is converted into a compound ' X ' after a series of reactions. A little amount of 'X' when tested with blue litmus turns to red. ' X ' on complete reaction with another compound 'Y' gave the product which did not respond to litmus test. Identify the correct sequence of the reactions.
(i) $2 \mathrm{SO}_{2}+\mathrm{O}_{2} \longrightarrow 2 \mathrm{SO}_{3}$
(ii) $\mathrm{H}_{2} \mathrm{SO}_{4}+2 \mathrm{KOH} \longrightarrow \mathrm{K}_{2} \mathrm{SO}_{4}+2 \mathrm{H}_{2} \mathrm{O}$
(iii) $\mathrm{SO}_{3}+\mathrm{H}_{2} \mathrm{O} \longrightarrow \mathrm{H}_{2} \mathrm{SO}_{4}$
(iv) $\mathrm{S}+\mathrm{O}_{2} \longrightarrow \mathrm{SO}_{2}$
(1) i, iii, iv, ii
(2) iv, i, iii, ii
(3) ii, iii, i, iv
(4) iv, iii, ii, i
Q. 29 A hydrocarbon having one double bond has 50 carbon atoms, number of hydrogen atoms are
(1) 48
(2) 52
(3) 100
(4) 98
Q. 30 Oxidation of propanol in the presence of alkaline $\mathrm{KMnO}_{4}$ give
(1) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CHO}$
(2) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{COOH}+\mathrm{H}_{2} \mathrm{O}$
(3) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CHO}+\mathrm{H}_{2} \mathrm{O}$
(4) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{COOH}$
Q. 31 In memory weakness which of the following parts is injured
(1) medulla
(2) cerebrum
(3) cerebellum
(4) hypothalamus
Q. 32 A patient has type of ' $A$ ' blood, he needs blood transfusion, Type ' $A$ ' blood is not available which of the following blood type could be substituted without causing harm to the patient
(1) AB
(2) O
(3) B
(4) AB and O
Q. 33 Find out the incorrect match
(a) Ciliated epithelium - Bronchioles and

Fallopian tubes
(b) Compound epithelium - Ducts of salivary glands
(c) Dense regular connective tissue - tendons and ligaments
(d) Areolar Tissue - Present in the skin
(1) (a) \& (c)
(2) (b) \& (c)
(3) (a) \& (d)
(4) only (d)
Q. 34 Ornithine cycle operates in
(1) Stomach
(2) Pancreas
(3) Liver
(4) Oral cavity
Q. 35 A drop of each of the following is placed separately on four slides. Which of them will not coagulate
(1) whole blood from pulmonary vein
(2) blood serum
(3) blood plasma
(4) Sample from the thoracic duct of lymphatic system
Q. 36 Contraction of shortest duration is of
(1) Heart
(2) Eyelids
(3) Arm
(4) Jaws
Q. 37 Keeping in view the fluid mosaic model for the structure of cell membrane, which one of the following statements is correct with respect to the movement of lipids and proteins from one lipid monolayer to the other (described as flipflop movement)?
(1) while protein can flip-flop, lipid cannot
(2) neither lipids, nor proteins can flip-flop
(3) both lipids and proteins can flip-flop
(4) while lipids can rarely flip-flop protein can not
Q. 38 Pepsinogen is secreted by
(1) chief-cells
(2) oxyntic cells
(3) mast cells
(4) parietal cells
Q. 39 Pollen grains of a plant consist 12 number of chromosomes then what will be number of chromosome in their endosperm
(1) 24
(2) 48
(3) 36
(4) 12
Q. 40 If 'AB' blood group of male individual marries with 'O' blood group of female, then which type of blood group is not possible
(1) A \& B
(2) $\mathrm{B} \& \mathrm{O}$
(3) O \& A
(4) $\mathrm{AB} \& \mathrm{O}$
Q. 41 Which one is not produced during Anaberobic respiration?
(1) Pyruvic acid
(2) $\mathrm{CO}_{2}$
(3) $\mathrm{H}_{2} \mathrm{O}$
(4) ATP
Q. 42 If producer produced 240 Jule of energy by the process of photosynthsis, availability of energy amount to lion in a food chain will be
(1) 200 K cal
(2) 24 K cal
(3) 2.4 K cal
(4) 240 K cal
Q. 43 Two bones are connected to each other by a
(1) ligament.
(2) calcium.
(3) tendon.
(4) potassium.
Q. 44 Drugs are designed to block
(1) microbial entry.
(2) microbial energy.
(3) host defence.
(4) biochemical pathways.
Q. 45 New cells in a multicellular organisms are formed every
(1) year
(2) month
(3) week
(4) day.
Q. 46 In the adjacent figure $\frac{\mathrm{BD}}{\mathrm{BC}}=\frac{1}{3}$, then the ratio $\frac{\tan \alpha}{\tan \beta}$ is equal to

(1) $\frac{3}{4}$
(2) $\frac{1}{2}$
(3) $\frac{2}{3}$
(4) $\frac{3}{2}$
Q. 47 If H.C.F. of $(x-5)\left(x^{2}-x-a\right)$ and $(x-4)\left(x^{2}-2 x-b\right)$ is $(x-4)(x-5)(x+3)$. Find the values of $a$ and $b$ respectively
(1) 15,18
(2) 10,7
(3) $-8,10$
(4) 12,15
Q. 48 In the given figure, when the outer circles all have radii ' R ' then the radius of the inner circle will be: will be.
(1) $\frac{2}{(\sqrt{2}+1) R}$
(2) $(\sqrt{2}-1) \mathrm{R}$
(3) $\frac{1}{\sqrt{2}} \mathrm{R}$
(4) $\sqrt{2} \mathrm{R}$
Q. 49 Triangle PAB is formed by three tangents drawn to the circle with centre ' O ' as shown. If the angles $\mathrm{APB}=40^{\circ}$ then angles AOB is equal to
(1) $50^{\circ}$
(2) $70^{\circ}$
(3) $65^{\circ}$
(4) $80^{\circ}$

Q. 50 Match the column.
Q. 54 If one root of a quadratic equation with rational

## Column-I

## Column-II

(i) $\left(\sec ^{2} \theta+\tan ^{2} \theta\right)^{2}-4 \sec ^{2} \theta \tan ^{2} \theta=$
(p) 3
(ii) $\frac{\left(\tan ^{2} 60^{\circ}+4 \cos ^{2} 45^{\circ}+3 \sec ^{2} 30^{\circ}+5 \cos ^{2} 90^{\circ}\right)}{\operatorname{cosec}^{2} 30^{\circ}+\sec 60^{\circ}-\cot ^{2} 30^{\circ}}=$ (q) $\frac{8}{17}$
(iii) If $\sec \theta+\tan \theta=4$, then $\cos \theta=$
(r) 4
(iv) $\tan 5^{\circ} \tan 85^{\circ}+\tan 10^{\circ} \tan 80^{\circ}$ $+\tan 35^{\circ} \tan 55^{\circ}+\tan 25^{\circ} \tan 65^{\circ}=$ (s) 1
(1) (i) $\rightarrow$ (s), (ii) $\rightarrow$ (p), (iii) $\rightarrow$ (r), (iv) $\rightarrow$ (q)
(2) (i) $\rightarrow$ (s), (ii) $\rightarrow$ (p), (iii) $\rightarrow$ (q), (iv) $\rightarrow$ (r)
(3) (i) $\rightarrow$ (p), (ii) $\rightarrow$ (r), (iii) $\rightarrow$ (q), (iv) $\rightarrow$ (s)
(4) (i) $\rightarrow$ (q), (ii) $\rightarrow$ (p), (iii) $\rightarrow$ (s), (iv) $\rightarrow$ (r)
Q. $51 \quad \sin ^{2} 5^{\circ}+\sin ^{2} 6^{\circ}+$ $\qquad$ $\sin ^{2} 84^{\circ}+\sin ^{2} 85^{\circ}=$ ?
(1) $39 \frac{1}{2}$
(2) $40 \frac{1}{2}$
(3) 40
(4) $39 \frac{1}{\sqrt{2}}$
Q. 52 Let $r$ be a root of the equation $x^{2}+2 x+6=0$. The value of $(r+2)(r+3)(r+4)(r+5)$ is equal to
(1) 51
(2) -51
(3) -126
(4) 126
Q. 53 The series of natural numbers are arranged as follows

23
456
78910
1112131415
Find the sum of the numbers in the 20th row.
(1) 4010
(2) 4210
(3) 80010
(4) None of these
coefficient is $\left(\frac{3 \sqrt{5}}{\sqrt{10}+\sqrt{20}+\sqrt{40}-\sqrt{5}-\sqrt{80}}\right)$
then the quadratic equation is
(1) $x^{2}+2 x-1=0$
(2) $x^{2}-2 x-1=0$
(3) $x^{2}-2 \sqrt{2} x+1=0$
(4) $x^{2}+2 x-3=0$
Q. 55 The speed of the current is $4 \mathrm{~km} / \mathrm{hr}$. A boat goes 10 km upstream and come back to the starting point in 80 min . What is the speed of the boat in still water?
(1) $20 \mathrm{~km} / \mathrm{hr}$
(2) $16 \mathrm{~km} / \mathrm{hr}$
(3) $18 \mathrm{~km} / \mathrm{hr}$
(4) $22 \mathrm{~km} / \mathrm{hr}$
Q. 56 Bucket of height 8 cm and made up of copper sheet is in the form of frustum of a right circular cone with radii of its lower and upper ends as 3 cm and 9 cm respectively. The height of the cone of which the bucket is a part
(1) 12 cm
(2) 11 cm
(3) 10 cm
(4) 13 cm
Q. 57 Let $\triangle \mathrm{XOY}$ be a right angled triangle with $\angle \mathrm{XOY}=90^{\circ}$. Let M and N be the midpoints of legs OX and OY, respectively. Given that $\mathrm{XN}=19$ and $\mathrm{YM}=22$, the length XY is equal to
(1) 24
(2) 26
(3) 28
(4) 34
Q. 58 If $|x-3|=2$, then values of $x$ are -
(1) $x=2 \& x=3$
(2) $x=1 \& x=5$
(3) $x=-1 \& x=-3$
(4) $x=5 \& x=-1$
Q. 59 The value of ' $x$ ' lying between $0^{\circ}$ and $90^{\circ}$ satisfying simultaneously the equations $8 \sin ^{2} \mathrm{x}-2 \cos \mathrm{x}=5$ and $5 \tan ^{2} \mathrm{x}-\sec ^{2} \mathrm{x}=11$ is
(1) $30^{\circ}$
(2) $45^{0}$
(3) $60^{0}$
(4) None
Q. 60 A set of numbers consists of four 5's, six 7's, ten 9 's, eleven 12 's, three 13 's, two 14 's. The approximate difference between mean and median of this set of numbers is
(1) 1
(2) 2
(3) 3
(4) 4
Q. 61 Which one of the following cannot be the ratio of angles in a right angled triangle
(1) $1: 2: 3$
(2) $1: 1: 2$
(3) $1: 3: 6$
(4) $1: 3: 4$
Q. 62 The smallest number which when increased by 5 is completely divisible by 8,11 and 24 is
(1) 264
(2) 259
(3) 269
(4) none of these
Q. 63 In a simultaneous throw of two dice, what is the probability of getting a total is prime number?
(1) $\frac{1}{4}$
(2) $\frac{5}{12}$
(3) $\frac{7}{12}$
(4) $\frac{5}{36}$
Q. 64 A regular octagon is formed by cutting congruent isosceles right-angled triangles from the corners of a square. If the square has side length 1 , the side-length of the octagon is
(1) $\frac{\sqrt{2}-1}{2}$
(2) $\sqrt{2}-1$
(3) $\frac{\sqrt{5}-1}{4}$
(4) $\frac{\sqrt{5}-1}{3}$
Q. 65 In the figure, $C D$ is the diameter of a semicircle CBED with centre $O$, and $\mathrm{AB}=\mathrm{OD}$. If $\angle \mathrm{EOD}=60^{\circ}$, then $\angle \mathrm{BAC}$ is

(1) $15^{\circ}$
(2) $20^{\circ}$
(3) $30^{\circ}$
(4) $45^{\circ}$

Directions (Q.66) : Find the missing number :

(1) 262

631

(2) 622
(4) 613

(3)

63

$$
\begin{equation*}
108 \tag{3}
\end{equation*}
$$

Directions (67 \& 68) : Choose the suitable diagram which represents the relation among the different classes given below.
Q. 67 Wheat, Pulse, Grain
(1)

(2)

(3)

(4)

Q. 68 Elephant, Tiger, Four-footed animal.
(1)

(2)

(3)

(4)


Directions ( 69 \& 70) : In each of the questions below are given three statements followed by some conclusions, numbered I, II. and so on. You have to take the given statements to be true even if they seem to at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Q. 69 Statements: Some foods are forests. Some foods are flutes. All forests are frozen.
Conclusions: (I) Some foods are not frozen is a possibility
(II) Some frozen are forests.
(1) if only conclusion I follows
(2) if only conclusion II follows.
(3) if either conclusion Ior conclusion II follows.
(4) if both conclusions I and II follow.
Q. 70 Statements: All riddles are puzzles. All magics are trivia. No puzzle is difficult.
Conclusions: (I) Some riddles being difficult is a possibility.
(II) All trivia being magic is a possibility.
(1) if only conclusion I follows
(2) if only conclusion II follows.
(3) if either conclusion Ior conclusion IIf follows.
(4) if both conclusions I and II follow.

Directions (71 \& 72) : Study the following information and answer the questions given below:

In a certain code language, 'true is always correct' is written as 'tin min rin sin', 'false is never wrong' is written as 'din sin pin zin', ' always here ever' is written as 'min kin nin', and 'here is true' is written as 'kin rin sin'.
Q. 71 What is the code for 'ever' in that code language?
(1) min
(2) kin
(3) nin
(4) Can't be determined
Q. 72 How is 'true here' writte in that code language?
(1) rin min
(2) rin $\sin$
(3) kin sin
(4) rin kin
Q. 73 Nisha is taller than Suja. Nina is taller than Nisha. Nila is taller than Nina. Misha is tallest of all. If they stand according to their height, who will be in the middle?
(1) Nisha
(2) Nina
(3) Suja
(4) Nila

Direction(Q. 74 \& Q.75) What will come in the place of question mark in the following number series?
Q. $7461,52,63,94, ?, 18$
(1) 100
(2) 64
(3) 46
(4) 1
Q. $7515,30, ?, 40,8,48$
(1) 10
(2) 20
(3) 30
(4) 35
Q. 76 K is a place which is located 2 km away in the North west direction from the capital P. R is another place that is located 2 km away in the south west direction from K . M is another place that is located 2 kms away in the North west direction from R.T is yet another place that is located 2 km away in the south-west direction from M . In which direction is T located in relation to $P$.
(1) South-west
(2) North-west
(3) West
(4) North

Directions (Q. 77 \& 78) : These questions are based on the following diagram. The triangle stands for Hindi-speaking people, circle for French-speaking, square for English-speaking and rectangle for German-speaking people.

Q. 77 Which one of the following statements is true?
(1) All French-speaking people speak German.
(2) All French-speaking people speak English.
(3)All German-speaking people speak English and Hindi.
(4) All French-speaking people speak Hindi also.
Q. 78 Which one of the following statements is not true?
(1) German-speaking people can speak French.
(2) No French-speaking people can speak German.
(3) Some Hindi-speaking people can speak French, English and German as well.
(4) Some French-speaking people can speak Hindi and English but not German.
Direction (Q. 79 to 81) : Lata was cutting a cuboidshaped cake at her birthday party which has 12 inches length, 8 inches breadth and 2 inches height.
Two faces measuring 8 inches $\times 2$ inches are coated with chocolate cream.
Two faces measuring 12 inches $\times 2$ inches are coated with vanilla cream.
Two faces measuring 12 inches $\times 8$ inches are coated with butter scotch cream.
The cake is cut into 24 cubes of size, 2 inches each side.
Q. 79 How many cake pieces are there which have only two types of coating of cream ( any two out of chocolate, vanilla and butter scotch)?
(1) 4
(2) 8
(3) 12
(4) 16
Q. 80 How many cake pieces will have only one types of coating of cream?
(1) 4
(2) 8
(3) 12
(4) 20
Q. 81 Kasim, Rajni, Pema and Gurpreet loved the chocolate cream and they decided to take all pieces with chocolate coating for them. How many cake pieces will be available for others?
(1) 8
(2) 12
(3) 16
(4) 20
Q. 82 Find the missing term in the given figure by identifying the Rule in Ist and Ind figure

(1) 140

(3) 500
(4) 320
Q. 83 From the following figures of dice, find which number will come in place of '?'.
(I)

(II)

(III)

(1) 4
(2) 6
(3) 2
(4) 3

Directions: ( $\mathbf{Q} .84 \& 85$ ) In the following questions there are two sets of the figures. One set is of problem figures and another set is of answer-figures. Problem figures are arranged in a sequence. One figure from the answer-figures is to be selected such that it can be placed after the series of problem
Q. 84 Problem figures


Answer figures

(1)
(4)


(2)

Q. 85 Problem figures


Answer figures

(1)

(2)

(3)

(4)

## ANSWER KEY

| Q. 1 | 2 | Q. 2 | 1 | Q. 3 | 2 | Q. 4 | 3 | Q. 5 | 2 | Q. 6 | 4 | Q. 7 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q. 8 | 4 | Q. 9 | 1 | Q. 10 | 1 | Q. 11 | 4 | Q. 12 | 3 | Q. 13 | 2 | Q. 14 | 3 |
| Q. 15 | 1 | Q. 16 | 4 | . 17 | 4 | Q. 18 | 4 | Q. 19 | 1 | Q. 20 | 3 | Q. 21 | 4 |
| Q. 22 | 1 | Q. 23 | 4 | Q. 24 | 4 | Q. 25 | 1 | Q. 26 | 1 | Q. 27 | 4 | Q. 28 | 2 |
| Q. 29 | 3 | Q. 30 | 2 | Q. 31 | 2 | Q. 32 | 2 | Q. 33 | 4 | Q. 34 | 3 | Q. 35 | 2 |
| Q. 36 | 2 | Q. 37 | 4 | Q. 38 | 1 | Q. 39 | 3 | Q. 40 | 4 | Q. 41 | 3 | Q. 42 | 3 |
| Q. 43 | 1 | Q. 44 | 4 | Q. 45 | 4 | Q. 46 | 3 | Q. 47 | 4 | Q. 48 | 2 | Q. 49 | 2 |
| Q. 50 | 2 | Q. 51 | 2 | Q. 52 | 3 | Q. 53 | 1 | Q. 54 | 2 | Q. 55 | 2 | Q. 56 | 1 |
| Q. 57 | 2 | Q. 58 | 2 | Q. 59 | 3 | Q. 60 | 1 | Q. 61 | 3 | Q. 62 | 2 | Q. 63 | 2 |
| Q. 64 | 2 | Q. 65 | 2 | Q. 66 | 2 | Q. 67 | 4 | Q. 68 | 4 | Q. 69 | 4 | Q. 70 | 2 |
| Q. 71 | 3 | Q. 72 | 4 | Q. 73 | 2 | Q. 74 | 3 | Q. 75 | 1 | Q. 76 | 3 | Q. 77 | 4 |
| Q. 78 | 1 | Q. 79 | 3 | Q. 80 | 2 | Q. 81 | 3 | Q. 82 | 3 | Q. 83 | 4 | Q. 84 | 2 |
| Q. 85 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |

