## Talent Search Exam. 2019

TEST
CODE
9000
for IX

Duration : 2 Hours
Max. Marks : 360
Please read the instructions carefully. You are alloted 5 minutes specifically for this purpose.

## INSTRUCTIONS

## A. General :

1. This booklet is your question paper containing 90 questions. The booklet has $\mathbf{1 2}$ pages.
2. The question paper contains blank space on back for your rough work. No additional sheets will be provided for rough work.
3. It is mandatory to use Blue or Black Ball Point Pen to darken to appropriate circle in the answer sheet.
4. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are not allowed to be carried inside the examination hall.
5. Fill in the boxes provided below on this page and also write your Name and Roll Number in the space provided.
6. Do not use white-fluid or any other rubbing material on answer sheet. Before handing over the answer sheet to the invigilator, candidate should check that Roll No, Test code and Book Code have been filled and marked correctly. Immediately after the prescribed examination time is over, the Answer sheet is to be returned to the invigilator.
B. Filling the Answer Sheet :
7. On Side-1 of Answer Sheet write your name, Enrollment Number and Name of the centre in the respective boxes. Do not write anything on Side-2.
8. Put your signature space provided on the Answer Sheet affirming that you have verifed this.
9. All question carry $\mathbf{+ 4}$ Marks for Right Answer. No Negative Marking.

## PROCEDURE OF FILLING UP THE ANSWERS IN ANSWER SHEET

## Wrong Filling

$\triangle$ BCD Tick mark
$\not \subset B C D$ Cross mark

- B C D Half filled or semi dark
$A B C D$ Light filled

Right Filling
B C D Fully darken with Pen
-BCD Fully darken with Pen

- BCD Fully darken with Pen

BCD Fully darken with Pen

Name of the candidate (In Capital Letters)
$\square$
I have read all the instruction and shall abide by them.

Enrollment Number


I have verified all the information filled in by the candidate.
(Signature of the candidate)

## PART-I (MATHEMATICS)

1. If $\left(x^{2}+3 x+5\right)\left(x^{2}-3 x+5\right)=m^{2}-n^{2}$, then $m$ $=$ $\qquad$
(A) $x^{2}-3 x$
(B) $3 x$
(C) $x^{2}+5$
(D) Both (A) and (B)
2. Given that the number 67 y 19 is divisible by 9 , where y is a single digit, what is the least possible value of $y$ ?
(A) 3
(B) 9
(C) 7
(D) 4
3. A 3-digit number 'cba' is divisible by 3 if $\qquad$ .
(A) $a+2 b+c$ is divisible by 3
(B) $2 \mathrm{a}+\mathrm{b}+\mathrm{c}$ is divisible by 3
(C) $a+b+2 c$ is divisible by 3
(D) $a+b+c$ is divisible by 3
4. If $x^{2}+\frac{1}{x^{2}}=\frac{17}{4}$, then find the value of $\frac{2}{5}\left(x+\frac{1}{x}\right)+\left(x-\frac{1}{x}\right)$.
(A) $\frac{3}{2}$
(B) $\frac{25}{4}$
(C) $\frac{5}{2}$
(D) $\frac{9}{4}$
5. If $A B C D$ is a parallelogram, $\triangle A D N$ and $\triangle A B C$ are isosceles triangles, then find $\angle B A C$.

(A) $112^{\circ}$
(B) $140^{\circ}$
(C) $48^{\circ}$
(D) $32^{\circ}$
6. How many bricks of size $22 \mathrm{~cm} \times 10 \mathrm{~cm} \times 7 \mathrm{~cm}$ are required to construct a wall 11 m long, 3.5 m high and 40 cm thick, if the cement and sand used in the construction occupy (1/10)th part of the wall?
(A) 8000
(B) 9000
(C) 7000
(D) 10000
7. In the given figure (not drawn to scale), find the value of $(b+d)-(a+c)$.

(A) $115^{\circ}$
(B) $40^{\circ}$
(C) $90^{\circ}$
(D) $25^{\circ}$
8. If $\left(\frac{1}{16}\right)^{4-3 x} \times 8^{x-2}=(0.25)^{x}$, then find the value of $\frac{17 x}{22}+1$.
(A) 2
(B) $\frac{39}{22}$
(C) 1
(D) $\frac{22}{17}$
9. How many 5 - digit numbers of the form AABAA is divisible by 33 ?
(A) 1
(B) 3
(C) 0
(D) Infinite
10. Which of the following is the factor of $12\left(a^{2}+7 a\right)^{2}$ $-8\left(a^{2}+7 a\right)(2 a-1)-15(2 a-1)^{2} ?$
(i) $\left(2 \mathrm{a}^{2}+8 \mathrm{a}+3\right)$
(ii) $\left(6 a^{2}+52 a-5\right)$
(iii) $(3 a+5)$
(A) Only (i)
(B) Both (i) and (ii)
(C) Only (ii)
(D) All (i), (ii) and (iii)
11. When $x=2,7,11, \ldots ., y=8,28,44, \ldots$, then $x$ and $y$ are in. $\qquad$
(A) Direct proportion
(B) Inverse proportion
(C) Neither direct nor inverse proportion
(D) None of these
12. A hoop is resting vertically at staircase as shown in the diagram. $A B=12 \mathrm{~cm}$ and $B C=8 \mathrm{~cm}$. The radius of the hoop is $\qquad$

(A) 13 cm
(B) $12 \sqrt{2} \mathrm{~cm}$
(C) 14 cm
(D) $13 \sqrt{2} \mathrm{~cm}$
13. Find two parts of 34 such that $\left(\frac{4}{7}\right)^{\text {th }}$ of one part is equal to $\left(\frac{2}{5}\right)^{t h}$ of the other.
(A) 16,18
(B) 14,20
(C) 15,19
(D) None of these
14. A steamer goes downstream and covers the distance between two ports in 5 hours while it covers the same distance upstream in 6 hours. If the speed of the stream is $1 \mathrm{~km} / \mathrm{hr}$, find the speed of the steamer in still water.
(A) $12 \mathrm{~km} / \mathrm{hr}$
(B) $11 \mathrm{~km} / \mathrm{hr}$
(C) $13 \mathrm{~km} / \mathrm{hr}$
(D) $14 \mathrm{~km} / \mathrm{hr}$
15. In the given figure, line RT is drawn parallel to $S Q$. If $\angle Q P S=100^{\circ}, \angle P Q S=40^{\circ}, \angle P S R=85^{\circ}$ and $\angle Q R S=70^{\circ}$ then $\angle \mathrm{QRT}=$ $\qquad$ .

(A) $45^{\circ}$
(B) $65^{\circ}$
(C) $85^{\circ}$
(D) $90^{\circ}$
16. Square root of $\frac{0.081}{0.0064} \times \frac{0.484}{6.25} \times \frac{2.5}{12.1}$ is
(A) 0.45
(B) 0.75
(C) 0.95
(D) 0.99
17. The smallest number by which 392 must be multiplied so that the product is a perfect cube, is $\qquad$ .
(A) 3
(B) 5
(C) 7
(D) 9
18. A grocer purchased 80 kg of sugar at $₹ 13.50$ per kg and mixed it with 120 kg of sugar of cost ₹ 16 per kg. At what rate should he sell the mixture (per kg ) to gain $16 \%$ ?
(A) ₹ 15.30
(B) ₹ 19.18
(C) ₹ 17.40
(B) ₹ 18.66
19. If $x+\frac{1}{x}=5$, find the value of $x^{4}+\frac{1}{x^{4}}$.
(A) 144
(B) 400
(C) 236
(D) 527
20. The area of a quadrilateral is 342 sq. m . The perpendiculars from two of its opposite vertices to the diagonal are 12 m and 12 m . What is the length of the diagonal?
(A) 28.6 cm
(B) 25.3 cm
(C) 28.5 cm
(D) 25.5 cm
21. Solve for $y$, if
$\frac{\left(\frac{1}{9}\right)^{2 y-1}(.0081)^{1 / 3}}{\sqrt{243}}=\left(\frac{1}{3}\right)^{2 y-5} \sqrt[3]{\frac{27^{y-1}}{10000}}$
(A) $\frac{1}{2}$
(B) $-\frac{19}{18}$
(C) $\frac{3}{10}$
(D) $\frac{12}{17}$
22. Two quantities $x$ and $y$ vary inversely with each other, then $\qquad$
(A) $x / y$ remains constant
(B) $x$ - y remains constant
(C) $x+y$ remains constant
(D) $x \times y$ remains constant
23. $A B C D$ is a parallelogram. Find the angles $x, y$ and $z$ in the given figure.

(A) $40^{\circ}, 50^{\circ}, 60^{\circ}$
(B) $60^{\circ}, 60^{\circ}, 60^{\circ}$
(C) $50^{\circ}, 50^{\circ}, 50^{\circ}$
(D) $60^{\circ}, 70^{\circ}, 70^{\circ}$
24. If $x=\frac{2+3 \times 2}{-5}$, then $|-x|$ is equal to $\qquad$ -
(A) $\frac{8}{5}$
(B) $-\frac{8}{5}$
(C) 0
(D) 1
25. In the five digit number 1 b 6 a 3 , $a$ is the greatest single digit perfect cube and twice of it exceeds $b$ by 7 . Then then the sum of the number and its cube root is $\qquad$ -
(A) 18700
(B) 11862
(C) 19710
(D) 25320

## PART-II (SCIENCE)

26. Slope of $V$-T graph gives us
(A) Average velocity
(B) Acceleration
(C) Displacement
(D) Time travelled
27. Displacement time graph shown below of two particles moving in a straight line along x-axis are

(I)

(II)
(A) Particle (I) has uniform acceleration
(B) Particle (I) has non uniform acceleration
(C) Particle (II) has uniform motion
(D) Particle (II) has a accelerated motion
28. The speed of a magnetic audio tape is 4.5 $\mathrm{cms}^{-1}$. What is the length of the tape in 60 minute cassette?
(A) $0.162 \times 10^{3} \mathrm{~m}$
(B) 162 cm
(C) 162 mm
(D) 1.62 cm
29. A body is initially at rest, A force $F$ acting on it varies with time as shown in figure. Then the body

(A) Remains at rest
(B) Moves with constant acceleration
(C) Oscillates about a point
(D) Finally comes to rest at a distance from the original position
30. A ball rolling down a field comes to stop as its momentum runs out
(A) Because conservation of linear momentum holds good only over small distances
(B) Because gravity slows down the ball
(C) Because the ball is rolling, linear momentum does not apply.
(D) Because there is a net force acting in the direction opposite to its motion.
31. If earth is at one fourth of its present distance from sun, the duration of the year will be
(A) Half the present year
(B) One eighth the present year
(C) One fourth the present year
(D) One sixth the present year
32. Three particles each of mass $m$ are placed on three coners of a square of side L meter. Calculate the Gravitational force on the fourth particle of mass ' $m$ ' placed at the corner D.

(A) $\frac{G M^{2}}{L^{2}}\left[\sqrt{2}+\frac{1}{2}\right]$ along $D B$
(B) $\frac{G M^{2}}{L^{2}}\left[\sqrt{2}+\frac{1}{2}\right)$ along DA
(C) $\frac{G M^{2}}{L^{2}}\left(\sqrt{2}+\frac{1}{2}\right)$ along $D C$
(D) $\frac{G M^{2}}{L^{2}}$ along $D B$
33. To attain a maximum height the angle of projection must be
(A) $0^{\circ}$ with respect to Horizontal
(B) $90^{\circ}$ with respect to Horizontal
(C) $45^{\circ}$ with respect to Horizontal
(D) $45^{\circ}$ with respect to vertical
34. The angular velocity of a particle in uniform circular motion is 30 rpm . The time period of particle is
(A) 0.5 sec
(B) 1 sec
(C) 2 sec
(D) 30 sec
35. A ball dropped from a height 20 m rebounds to a height of 10 m . The lose in energy is
(A) $10 \%$
(B) $25 \%$
(C) $50 \%$
(D) $100 \%$
36. Cotton and iron of weight 1 kg each in air are weighed in vaccum. Then
(A) Iron in heavier
(B) Cotton is heavier
(C) Both weight 1 kg
(D) Both ahve zero weight
37. A hydrometer is floating in water in a beaker. It rises up a little if.
(A) Salt is added to water
(B) Alcohol is added to water
(C) Water is heated
(D) Water is cooled
38. A toy boat is floating on water in a bucket. It some water is taken form the bucket andpoured into the boat, the level of water is the bucket,
(A) Rises
(B) Goes down
(C) Remains same
(D) First rises and then goes down
39. Water in a trough transmits pressure equally in all direction. This is known as
(A) Pascal Law
(B) Boyels Law
(C) Archimedes Principle
(D) Law of Floatation
40. A test tube filled with water is tilted as shown in fig. pressure at $A$ and $B$ are $P_{A}$ and $P_{B}$ respectively. Then

$$
\mathrm{A}
$$


(A) $P_{A}=2 P_{B}$
(B) $P_{A}=P_{B}$
(C) $P_{A}=\left(\frac{1}{2}\right) P_{B}$
(D) $\mathrm{P}_{\mathrm{A}}=\sqrt{2} \mathrm{P}_{\mathrm{B}}$
41. Aditya, a class 9 student investigated the reactivity to four metals, iron, copper, zinc and an unknown metal X . He arranged three experimental set-ups as shown in the diagram and observed the changes carefully.


If reactions occur in all the three beakers then, the metal $X$ is
(A) Cu
(B) Mg
(C) Fe
(D) Au
42. Each beaker contains two metal strips of same size fastened together and immersed in hydrochloric acid. After 5 minutes, which beaker will contain the least amount of zinc ions?
(A)

(B)

(C)

(D)

43. Fill in the blanks with the most appropriate option. 'W' is a very reactive metal, reacts vigorously with oxygen and water therefore, stored in $\qquad$ (1) $\qquad$ _.
' $X$ ' is a non-metal, soft and dull and forms__(2)__ oxides with oxygen.
' $Y$ ' is very reactive $\qquad$ (3) $\qquad$ , catches fire if exposed to air, therefore, stored in water. ' $Z$ ' does not react with dilute hydrochloric acid even on heating but it reacts with sulphuric acid. When it is exposed to moist air for long, it acquires a dull $\qquad$ (4) $\qquad$ coating.
(A) 1-Water, 2-basic, 3-metal, 4-reddish brown
(B) 1-Kerosene, 2-acidic, 3-metal, 4-reddish brown
(C) 1-Kerosene, 2-acidic, 3-non-metal, 4-green
(D) 1-water, 2-basic, 3-non-metal, 4-green
44. Destructive distillation of coal is carried out by heating coal strongly to $1000^{\circ} \mathrm{C}$ in the absence of air. The various useful products obtained are
(A) Crude oil, kerosene, naptha and heavy oil
(B) Coke, coal gas, coal tar and ammonium compounds
(C) Coal gas, petroleum gas and lignite
(D) None of these
45. Read the given passage and fill in the blanks by selecting an appropriate option.

The process of conversion of wood into coal is called $\qquad$ _. T There are three main varieties of coal which vary in their carbon content. __ii__ has upto 96 per cent of carbon, $\qquad$ iii_ has about 65 per cent carbon while __iv iv has about 38 per cent carbon.

|  | (i) | (ii) | (iii) | (iv) |
| :--- | :--- | :--- | :--- | :--- |
| (A) | Destructive | Lignite | Anthr- | Bitum- |
|  | distillation |  | acite | inous coal |
| (B) | Carboni- | Anthr- | Lignite | Bitum- |
|  | sation | acite |  | inous coal |
| (C) | Carboni - | Anthr - | Bitum - | Lignite |
|  | sation | acite | inous |  |
|  |  |  | coal |  |
| (D) | Destructive | Bitum - | Anthr - | Lignite |
|  | distillation | inous | acite |  |
|  |  | coal |  |  |

46. Match column I with column II and select the correct option from the codes gives below.

## Column I

(Amorphous forms of carbon
(P) Lamp black
(Q) Bone charcoal
(R) Wood charcoal
(S) Gas carbon
(T) Coke

## Column II

(Uses)
(i) For making electrodes for dry cell
(ii) In gas masks
(iii) In extraction of metals
(iv) To remove colour from sugarcane juice
(v) For making black shoe polish

|  | $\mathbf{P}$ | $\mathbf{Q}$ | $\mathbf{R}$ | $\mathbf{S}$ | $\mathbf{T}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (A) | (i) | (v) | (iii) | (ii) | (iv) |
| (B) | (v) | (iv) | (ii) | (iii) | (i) |
| (C) | (ii) | (iii) | (iv) | (i) | (v) |
| (D) | (v) | (iv) | (ii) | (i) | (iii) |

47. Read the given statements and select the correct option.

Statement 1 : Kerosene oil and wood do not catch fire on their own at room temperature.
Statement 2 : A combustible material cannot catch fire as long as its temperature is lower than its ignition temperature.
(A) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1
(B) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.
(C) Statement 1 is true and statement 3 is false.
(D) Both statements 1 and 2 are false.
48. Liquids and gaseous fuels have more advantages over solid fuels. Some of the advantages are
(i) Calorific value of liquid and gaseous fuels is higher than the solid fuels.
(ii) Liquids and gaseous fuels have higher ignition temperatures than the solid fuels.
(iii) Liquids and gaseous fuels are easier to store since solid fuels occupy lot of space.
(iv) Liquids and gaseous fuels burn completely, leaving no residue.

The correct advantages are
(A) (i), (ii) and (iii) only
(B) (i), (iii) and (iv) only
(C) (ii), (iii) and (iv) only
(D) (i), (ii) and (iv) only
49. Different zones of a candle flame are marked by the letters $P, Q, R$ and $S$.

Which of the following statements are correct?
(i) P is the luminous zone and is the hottest part of candle flame.
(ii) In zone $Q$, there is inadequate supply of oxygen.
(iii) Zone R contains unburnt wax vapours produced by melting of wax.
(iv) In S zone, carbon monoxide burns with a blue flame.

(A) (i) and (ii) only
(B) (ii), (iii) and (iv) only
(C) (ii) and (iv) only
(D) (i), (ii) and (iii) only
50. The purity of any substance can be checked by the following properties:
(A) Refractive index
(B) Density
(C) Melting point and Boiling point
(D) All of these
51. Air is homogeneous mixture because.
(A) It components can not seen by naked eyes
(B) They do not settle down under gravity
(C) Both (A) and (B)
(D) Air is neither homogenous nor heterogeneous mixture
52. When relative humidity is $100 \%$ then :
(A) No evaporation takes place
(B) Maximum evaporation takes place
(C) Minimum evaporation takes place
(D) None of these
53. When 200 gms of ice $0^{\circ} \mathrm{C}$ is mixed with 100 gms of water at $100^{\circ} \mathrm{C}$, the final physical state of the mixture after equilibrium has been established is:
(A) Solid state
(B) Liquid state
(C) Gaseous state
(D) None of these
54. Which of the following is an example of a mixture?
(A) Sagar
(B) Brass
(C) $\mathrm{CO}_{2}$
(D) $\mathrm{NO}_{2}$
55. The temperature at absolute zero is
(A) $273.15^{\circ} \mathrm{C}$
(B) $0^{\circ} \mathrm{C}$
(C) $-373.15^{\circ} \mathrm{C}$
(D) $-273.15^{\circ} \mathrm{C}$
56. Following is the data of four species $\left(S_{1}-S_{4}\right)$ present (+) or absent (-) in five different habitats (P, Q, R, S and T). Which species has the maximum diversity?

|  | $\mathbf{P}$ | $\mathbf{Q}$ | $\mathbf{R}$ | $\mathbf{S}$ | $\mathbf{T}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{S}_{1}$ | - | - | - | + | + |
| $\mathrm{S}_{2}$ | + | + | + | + | - |
| $\mathrm{S}_{3}$ | - | - | - | - | + |
| $\mathrm{S}_{4}$ | + | - | + | - | + |

(A) $\mathrm{S}_{1}$
(B) $\mathrm{S}_{2}$
(C) $\mathrm{S}_{3}$
(D) $\mathrm{S}_{4}$
57. Match different terms in column I with their related description in column II and select the correct option from the given codes.

## Column I

(a) Wedding
(b) Threshing
(c) Tilling
(d) Harvesting

## Column II

(i) Loosening and turning of soil
(ii) Removing unwanted plants from a field
(iii) Cutting and gathering of mature crop
(iv) Separation of grain from the chaff
(A) (a) - (i), (b) - (iii), (c) - (ii), (d) - (iv)
(B) (a) - (ii), (b) - (i), (c) - (iv), (d) - (iii)
(C) (a) - (ii), (b) - (iv), (c) - (i), (d) - (iii)
(D) (a) - (iv), (b) - (iii), (c) - (i), (d) - (ii)
58. Study the following table and select the correct option for $P, Q, R$ and $S$.

| Disease | Causative <br> organism | Mode of <br> transmission |
| :--- | :--- | :--- |
| Chicken-pox | Virus | P |
| Q | Bacterium | Water/Food |
| Malaria | R | Mosquito |
| S | Virus | Water |

(A) P-Air/contact ; Q-Cholera; R-Protozoan ; S-Polio
(B) P-Mosquito ; Q-Measles ; R-Fungi ; S-Polio
(C) P-Water ; Q-Polio ; R-Protozoan ; S-Hepatitis B
(D) P-Air ; Q-Typhoid ; R-Fungi ; S-Measles
59. Refer to the given passage.

The mosquito $P$ is a carrier of virus that spreads a disease $Q$. Another mosquito $R$ is a carrier of protozoan $S$ that spreads a disease called $T$.
Select the option which correctly identifies $P, Q$, $\mathrm{R}, \mathrm{S}$ and T .
(A) P-Aedes, Q-Dengue, R-Anopheles, S-Plasmodium, T-Malaria
(B) P-Tse-tse fly, Q-Dengue, R-Anopheles, S-Plasmodium, T-Malaria
(C) P-Aedes, $Q$-Dengue, R-Tse-tse fly, S-Entamoeba, T-Amoebic dysentery
(D) P-Tse-tse fly, Q-Dengue, R-Aedes, S-Entamoeba, T-Amoebic dysentery.
60. Refer to the given figure and select the labelled part where implantation of fertilised ovum takes place.

(A) P
(B) Q
(C) $R$
(D) S
61. Increase in oil production is
(A) Golden revoution
(B) Yellow revolution
(C) White revolution
(D) Blue revolution
62. The technique used to obtain variety with high yield and other desirable characters is
(A) Introduction
(B) Selection
(C) Hybridization
(D) both (A) and (B)
63. Growing two or more crops in definite row pattern is
(A) Mixed farming
(B) Mixed cropping
(C) Inter-cropping
(D) Crop rotation
64. Site of respiration in bacteria is
(A) Episome
(B) Mesosome
(C) Ribosome
(D) Mitochondria
65. The chemical substance present most abundantly in the middle lamella is
(A) Calcium pectinate
(B) Suberin
(C) Lignin
(D) Lamellenin
66. The inner membrane of mitochondrion is usually highly convoluted forming a series of in-foldings known as
(A) Thylakoids
(B) Grana
(C) Cristae
(D) Lamella
67. Functions of a Centriole is
(A) Formation of spindle fibres
(B) Formation of nucleolus
(C) Initiation of cell division
(D) Formation of cell plate
68. Which of the following cell present in areolar tissue?
(A) Fibroblasts
(B) Macrophages
(C) Mast cells
(D) All of these
69. Following is the most abundant tissue in animals:
(A) Epithilial tissue
(B) Neural tissue
(C) Msucular tissue
(D) Connected tissue
70. The meristem which occurs between xylem and phloem is :
(A) Apical meristems
(B) Intercalary meristems
(C) Lateral meristems
(D) All of these

## PART-III (REASONING)

71. If in a certain language, MACHINE is codded as LBBIHOD, which would be coded as SLTMFNB?
(A) RKSLEMA
(B) TKULGMC
(C) RMSNEOA
(D) TMUNGOC
72. If finger is called toe, toe is called foot, foot is called thumb, thumb is called ankle, ankle is called palm and palm is called knee, which one finger has different name?
(A) Thumb
(B) Ankle
(C) Knee
(D) Palm
73. In a certain code language, '324' means 'Light is bright', '629' means 'Girl is beautiful' and '4758' means 'I prefer bright clothes'. Which digit means 'Light' in that language?
(A) 3
(B) 2
(C) 4
(D) 7
74. Sohan introduces Mohan as the son of the only brother of his father's wife. How is Mohan related to Sohan?
(A) Cousin
(B) Son
(C) Uncle
(D) Son-in-law
75. If
(i) $P+Q$ means $P$ 'is the husband of' $Q$
(ii) $P \div Q$ means $P$ 'is the sister of' $Q$
(iii) $P \times Q$ means $P$ 'is the son of' $Q$,
then which of the following shows that $P$ is the daughter of $Q$ ?
(A) $R \times Q \div P$
(B) $Q+R \times P$
(C) $S \times Q+R \div P$
(D) $P \div S \times Q$
76. One day, Ravi left home and cycled 10 kms southwards, turned right and cycled 5 kms and turned right and cycled 10 kms and turned left and cycled 10 kms . How many kilometers will he have to cycle to reach his home straight?
(A) 10 kms
(B) 15 kms
(C) 20 kms
(D) 25 kms
77. A clock is so placed that at 12 noon its minute hand points towards North-east. In which direction does its hour hand point at $1: 30$ p.m.
(A) North
(B) South
(C) East
(D) West
78. A die is thrown four times and the different positions are recorded as follow :

(i)

(ii)

(iii)

(iv)

Which number is no the face opposite 6 ?
(A) 1
(B) 2
(C) 3
(D) 4
79. YEB, WFD, UHG, SKI, .... .
(A) QOL
(B) QGL
(C) TOL
(D) QNL
80. C 4X, F 9 U, I 16 R, $\ldots$
(A) K 25 P
(B) L 25 P
(C) L 25 O
(D) $\quad \mathrm{L} 27 \mathrm{P}$
81.

（A） 184
（B） 210
（C） 241
（D） 425
82.

（A） 10
（B） 11
（C） 12
（D） 13

83．If $L$ denotes $\times, M$ denotes $\div, P$ denotes + and $Q$ denotes－，then 16 P 24 M 8 Q 6 M 2 L $3=$ ？
（A）$\frac{13}{6}$
（B）$-\frac{1}{6}$
（C） $14 \frac{1}{2}$
（D） 10

84． $0,2,3,5,8,10,15,17,24,26, \ldots$ ．
（A） 35
（B） 32
（C） 30
（D） 28

85． $7,15,31,63,127, \ldots$ ．
（A） 254
（B） 265
（C） 253
（D） 255

86．Which one of the following Venn diagrams best illustrates the three classes ：Rhombus， Quadrilaterals，Polygons？
（A）

（B）

（C）

（D）


Find Water Image in Qestions（87－88）
87．bridge
（A）PI！̣ฉิe
（B）${ }^{\text {pupq̊ }}$
（C）puIq8is
（D）pцبрвія
88.

（X）

（a）

（b）

（c）

（d）

Find mirror image in Questions（89－90）
89．JUDGEMENT
（A）TNEMEGDUJ
（B）TイAMAGGUL
（C）ТИЗМЗФФUโ
（D）ЈЈСข马МヨИТ
90.

（X）

（a）

（b）

（c）

（d）

> सभी शक्तियां आपके अंदर है आप कुछ भी और सब कुछ कर सकते है....


