# FIITJ EE ADMISSION TEST- 2021 

## for students of <br> Class 7 <br> Paper 1

Time: 3 Hours (9:30 am - 12:30 pm)

## Instructions:

Caution: Class, Paper, Code as given above MUST be correctly marked on the answer OMR sheet before attempting the paper. Wrong Class, Paper or Code will give wrong results.

1. You are advised to devote 35 Minutes on Section-I, 35 Minutes on Section-II, 50 Minutes on Section-III, 30 Minutes on Section-IV and 30 Minutes on Section-V.
2. This Question paper consists of 5 sections. Marking scheme is given in table below:

| Section | Subject |  | Question no. | Marking Scheme for each question |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | correct answer | wrong answer |
| SECTION - I | APTITUDE |  |  | 1 to 12 | +3 | 0 |
|  |  |  | 13 to 18 | +4 | 0 |
| SECTION - II | PHYSICS | (PART-A) | 19 to 22 | +2 | 0 |
|  | CHEMISTRY | (PART-B) | 23 to 26 | +2 | 0 |
|  | MATHEMATICS | (PART-C) | 27 to 31 | +2 | 0 |
|  | BIOLOGY | (PART-D) | 32 to 36 | +2 | 0 |
| SECTION - III | PHYSICS | (PART-A) | 37 to 48 | +1.5 | 0 |
|  | CHEMISTRY | (PART-B) | 49 to 60 | +1.5 | 0 |
|  | MATHEMATICS | (PART-C) | 61 to 72 | +1.5 | 0 |
|  | BIOLOGY | (PART-D) | 73 to 84 | +1.5 | 0 |
| SECTION - IV | PHYSICS | (PART-A) | 85 to 87 | +3 | 0 |
|  | CHEMISTRY | (PART-B) | 88 to 90 | +3 | 0 |
|  | MATHEMATICS | (PART-C) | 91 to 93 | +3 | 0 |
|  | BIOLOGY | (PART-D) | 94 to 96 | +3 | 0 |
| SECTION-V | MATHEMATICS | (PART-A) | 97 to 102 | +3 | 0 |
|  | MATHEMATICS | (PART-B) | 103 to 108 | +3 | 0 |

3. Answers have to be marked on the OMR sheet. The Question Paper contains blank spaces for your rough work. No additional sheets will be provided for rough work.
4. Blank papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.
5. Before attempting paper write your OMR Answer Sheet No., Registration Number, Name and Test Centre in the space provided at the bottom of this sheet.
6. See method of marking of bubbles at the back of cover page for question no. 103 to 108.

Note: Please check this Question Paper contains all 108 questions in serial order. If not so, exchange for the correct Question Paper.

OMR Answer Sheet No. $\qquad$
Registration Number $\qquad$
Name of the Candidate $\qquad$
Test Centre

For questions 103 to 108
Numerical based questions single digit answer 0 to 9

## Example 1:

If answer is 6 .
Correct method:
(0)
(3) (4) (5)
(6) (7) (8) (9)

## Example 2:

If answer is 2.
Correct method:
(0) (1)
(2) (3)
(4) (5)
(6) (7) (8) (9)

## Recommended Time: 35 Minutes for Section - I

## Section - I

## APTITUDE TEST

This section contains 18 Multiple Choice Guestions number 1 to 18. Each question has 4 choices $(A),(B),(C)$ and (D), out of which ONLY ONE is correct.

Directions (1 to 5): In each of the following questions, a number/alphabet series is given with one term is missing. Choose the correct alternative that will continue the same pattern and replace the question mark (?) in the given series.

1. $16,36,64,100, ?$
(A) 121
(B) 144
(C) 169
(D) 225
2. $29,33,37,41, ?$
(A) 46
(B) 45
(C) 43
(D) 42
3. $96,48,24,12, ?$
(A) 6
(B) 4
(C) 2
(D) 5
4. $D, H, L, P, ?$
(A) S
(B) $U$
(C) T
(D) Z
5. AZ, BY, CX, DW, ?
(A) FE
(B) FG
(C) EG
(D) EV
6. 'Taka' is related to 'Bangladesh', similarly 'Pound sterling' is related with ?
(A) Russia
(B) Pakistan
(C) England (UK)
(D) Bhutan
7. 'Wicket' is related to 'Cricket', similarly 'Checkmate' is related to?
(A) Tennis
(B) Football
(C) Chess
(D) None of these
8. If Modi is brother of Savi, Savi is sister of Kavi and Kavi is father of Ravi, how Modi is related to Ravi?
(A) Uncle
(B) Father
(C) Grandfather
(D) Mother
9. If ' + ' is called ' $\mathbf{x}$ ', ' - ' is called ' $\div$ ', ' $\div$ ' is called ' - ' and ' $\mathbf{x}$ ' is called ' + ', then $20+10-5 \div 5 \times 15=$ ?
(A) 40
(B) 50
(C) 60
(D) 35
10. Find the number of triangles in the given figure.
(A) 5
(B) 4
(C) 6
(D) 1


Directions (Q. 11 to 12): In each of the following questions choose appropriate option from given alternatives such that the relationship defined by ' $:$ ' is preserved.
11. $8: 27$ and 64 : ?
(A) 121
(B) 216
(C) 343
(D) 125
12. $3: 16$ and $7:$ ?
(A) 34
(B) 29
(C) 43
(D) 36

Directions (Q. 13 to 14): In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure $(X)$ would complete the pattern.
13.

(X)

(A)

(B)

(C)

(D)
14.


(A)

(B)

(C)

(D)
15. Find the missing number that comes in the place of question mark (?).

(A) 42
(B) 402
(C) 420
(D) 220

Directions (Q. 16 to 18): Study the following information to answer the questions given below:
Five people A, B, C, D and E are sitting along a circle facing the centre. C is second to the right of $A$ and $D$ is second to the right of $C$. $E$ is not neighbour of $D$ then,
16. What is the position of $E$ ?
(A) To the immediate right of C
(B) To the immediate left of $A$
(C) To the immediate left of $B$
(D) To the immediate right of $A$
17. Which of the following is a right statement?
(A) A sits between C and D
(B) $C$ sits between $B$ and $E$
(C) $A$ is second to the left of $B$
(D) $C$ is second to the right of $D$
18. Which of the following is false statement?
(A) $A$ is immediate right of $D$
(B) $A$ is second to the left of $C$
(C) $B$ is immediate left of $C$
(D) B is immediate right of C

## Recommended Time: 35 Minutes for Section - II

## Section - II

## PHYSICS - (PART - A)

This part contains 4 Multiple Choice Questions number 19 to 22. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
19. A triangle drawn to a reduced scale to measure the distance between P and Q is as shown below. If the actual distance between $P$ and $Q$ is 3 km , and between $P$ and $R$ is 4 km ; the length of the line $P R$ in the diagram is $\qquad$ .
(A) 2 cm
(B) 1 cm
(C) 4 cm
(D) 8 cm

20. Which among the following is the fastest?
(A) A bus covering 10 km in 10 minutes
(B) A car covering 40 km in 1 h
(C) A bus covering 2 m in 1 s
(D) A car covering in 200 km in 6 h
21. A helicopter is moving in a straight path. Which type of motion will the propeller of a helicopter executes?
(A) Rotatory motion
(B) Oscillatory motion
(C) Translatory motion
(D) Both (A) and (C)
22. Convert $72 \mathrm{~km} / \mathrm{h}$ into $\mathrm{m} / \mathrm{s}$
(A) $10 \mathrm{~m} / \mathrm{s}$
(B) $20 \mathrm{~m} / \mathrm{s}$
(C) $0 \mathrm{~m} / \mathrm{s}$
(D) $30 \mathrm{~m} / \mathrm{s}$

## CHEMISTRY - (PART - B)

This part contains 4 Multiple Choice Questions number 23 to 26. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
23. Which of the following statements is true about cotton clothes?
(A) They are made up of a synthetic fibre
(B) They do not absorb water
(C) They keep us cool during summer
(D) They do not get wrinkled easily
24. Which of the following materials is lustrous?
(A) Oxygen
(B) Gold
(C) Nitrogen
(D) None of these
25. Which of the following is a physical change?
(A) Burning of coal
(B) Cooking of egg
(C) Baking a cake
(D) Boiling of water
26. Which pair of liquids are miscible?
(A) Water \& Petrol
(B) Water \& Coconut Oil
(C) Water \& Alcohol
(D) Water \& Kerosene

## MATHEMATICS - (PART - C)

This part contains 5 Multiple Choice Questions number 27 to 31. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
27. A student multiplied 1538 by 86 instead of 68 . By how much was his answer greater than correct answer?
(A) 28764
(B) 26874
(C) 27684
(D) 27846
28. Estimate the sum $4832+886+68$ (rounding off to nearest tens)
(A) 5790
(B) 5900
(C) 5700
(D) 6000
29. Raman had some toffees. He gave away $\ell$ toffees to his friends and still left with 6 toffees with him. How many toffees did Raman have?
(A) $\ell-6$
(B) $\ell+6$
(C) $6 \ell$
(D) $\frac{\ell}{6}$
30. Two-digit number whose successor is three-digit number
(A) 98
(B) 100
(C) 9
(D) 99
31. Number of multiples of 6 upto 100 is
(A) 8
(B) 12
(C) 16
(D) 14

## Space for Rough Work

## BIOLOGY - (PART - D)

This part contains 5 Multiple Choice Guestions number 32 to 36. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
32. Match the item given in column in A with those given in column B :

| Column - A |  | Column - B |  |
| :--- | :--- | :--- | :--- |
| (a) | Milk, curd, cheese, ghee | (i) | Eat other animals |
| (b) | Spinach, cauliflower, carrot | (ii) | Eat plants |
| (c) | Lions and tigers | (iii) | Are vegetables |
| (d) | Herbivores | (iv) | Are all animal product |

(A) $(\mathrm{a}-\mathrm{iv}),(\mathrm{b}-\mathrm{iii}),(\mathrm{c}-\mathrm{i}),(\mathrm{d}-\mathrm{ii})$
(B) ( $\mathrm{a}-\mathrm{iii}$ ), ( $\mathrm{b}-\mathrm{iv}$ ), (c - ii), (d-i)
(C) $(a-i)$, ( $b-i i),(c-i i i),(d-i v)$
(D) $(a-i i i),(b-i),(c-i v),(d-i i)$
33. Which of the following is an edible fungus?
(A) Mushroom
(B) Cabbage
(C) Pea
(D) Rhizobium
34. The plants having leaves with reticulate venation have......(i).....roots and are $\qquad$ (ii). $\qquad$ plants.
(A) (i) Tap root (ii) Monocot
(B) (i) Tap root (ii) Dicot
(C) (i) Fibrous root (ii) Monocot
(D) (i) Fibrous root (ii) Dicot
35. The loss of water from leaves of a plant is called
(A) Evaporation
(B) Respiration
(C) Transportation
(D) Transpiration
36. Match the following:

| Column - A |  | Column - B |  |
| :--- | :--- | :--- | :--- |
| (a) | Vitamin A | (i) | Fat soluble |
| (b) | Vitamin C | (ii) | Haemoglobin |
| (c) | Iron | (iii) | Bones and teeth |
| (d) | Phosphorus | (iv) | Water soluble |

(A) $(a-i),(b-i i),(c-i i i),(d-i v)$
(B) ( $\mathrm{a}-\mathrm{ii}$ ), ( $\mathrm{b}-\mathrm{iii}$ ), ( $\mathrm{c}-\mathrm{i}$ ), ( $\mathrm{d}-\mathrm{iv}$ )
(C) $(\mathrm{a}-\mathrm{i}),(\mathrm{b}-\mathrm{iv}),(\mathrm{c}-\mathrm{ii}),(\mathrm{d}-\mathrm{iii})$
(D) $(a-i),(b-i v),(c-i i i),(d-i i)$

## Recommended Time: 50 Minutes for Section - III

## Section - III

## PHYSICS - (PART - A)

This part contains 12 Multiple Choice Guestions number 37 to 48. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
37. What is the S.I. unit of area?
(A) cm
(B) $\mathrm{m}^{3}$
(C) $\mathrm{m}^{2}$
(D) litre
38. What is the S.I unit of gravitational force?
(A) Newton
(B) Dyne
(C) Joule
(D) m
39. What is the value of prefix gega (G)?
(A) $10^{6}$
(B) $10^{3}$
(C) $10^{9}$
(D) $10^{11}$
40. One gram is equal to $\qquad$ .
(A) $10^{3} \mathrm{~kg}$
(B) $10^{3} \mathrm{mg}$
(C) $10^{-8} \mathrm{mg}$
(D) $10^{-3} \mathrm{cg}$
41. The ratio of displacement to distance has $\qquad$ unit
(A) m
(B) $\mathrm{m}^{2}$
(C) No
(D) $\mathrm{m}^{3}$
42. Choose the wrong statement among the following
(A) To describe speed, direction is necessary
(B) The magnitude of distance covered and magnitude of displacement are the same when a body travels along a straight line
(C) Time is a scalar quantity
(D) Both (B) and (C)
43. Which of the following graph is not possible?
[ $\mathrm{Y}=$ Position, $\mathrm{X}=$ Time]

(A)

(B)

(C)

(D)
44. A person starts from point $P$ and travels along a straight line path of length 1 m , after reaching at point $Q$ he starts moving backward and reaches the same point $P$.


Find the distance travelled by a person
(A) 2 m
(B) 1 m
(C) zero
(D) 0.5 m
45. A light ray is incident on a reflecting surface as shown in the below figure. What is the angle of deviation?
(A) $100^{\circ}$
(B) $120^{\circ}$
(C) $80^{\circ}$
(D) $180^{\circ}$

46. Choose the correct statement from the following:
(A) Cement wall is an opaque medium
(B) Distillated water is a transparent medium
(C) Oiled paper is a translucent medium
(D) All of the above
47. Among the following, identify the odd one out.
(A) Sun
(B) Stars
(C) Burning candle
(D) Glow worm
48. Pinhole camera produces :-
(A) An erect and small image
(B) An inverted and small image
(C) An inverted and enlarged image
(D) An erect and enlarged image

## CHEMISTRY - (PART - B)

This part contains 12 Multiple Choice Questions number 49 to 60. Each question has 4 choices $(A),(B),(C)$ and (D), out of which ONLY ONE is correct.
49. Which of the following phenomena does not absorb heat?
(A) Boiling
(B) Melting
(C) Evaporation
(D) Freezing
50. A mixture of iron fillings and sand can be separated by :
(A) Threshing
(B) Magnetic separation
(C) Winnowing
(D) None of these
51. Out of the following, which statement is true?
(A) A mixture of powdered salt and sugar can be separated by the process of winnowing
(B) Butter is separated from milk by sieving
(C) Salt can be separated from its solution in water by evaporation
(D) Separating funnel is used to separate two miscible liquids
52. The metal which exists as liquid at room temperature is :
(A) Platinum
(B) Iron
(C) Magnesium
(D) Mercury
53. Which among the following is an animal protein fibre?
(A) Cotton
(B) Jute
(C) Silk
(D) Flax
54. Which of the following involves a fast chemical change?
(A) The burning of matchstick
(B) Rusting of iron
(C) Germination of seed
(D) Growth of a plant
55. Which of the following is an alloy?
(A) Iron
(B) Aluminium
(C) Stainless steel
(D) Copper
56. The separation of fibres from the seeds of cotton is called :
(A) Retting
(B) Ginning
(C) Weaving
(D) Knitting
57. The hand operated device(s) used for spinning is/are :
(A) Takli
(B) Charkha
(C) Both (A) \& (B)
(D) None of these
58. Which of the following substances will sink in water?
(A) Dry wood
(B) Ice
(C) Silver coin
(D) All of the above
59. Which of the following materials are generally good conductors of electricity?
(A) Metals
(B) Air
(C) Plastic
(D) Glass
60. Which one of the following is a reversible change?
(A) Melting of chocolate
(B) Burning of fire crackers
(C) Digestion of food
(D) Curdling of milk

## Space for Rough Work

## MATHEMATICS - (PART - C)

This part contains 12 Multiple Choice Questions number 61 to 72. Each question has 4 choices $(A),(B),(C)$ and (D), out of which ONLY ONE is correct.
61. If $a$ and $b$ are integers then $(a-b)$ is
(A) even number
(B) fraction
(C) natural number
(D) integer
62. The expression $(3 \times 49)(3 \times 49)(3 \times 49)(3 \times 49)(3 \times 49)(3 \times 49)$ can be expressed as
(A) $3^{6} \times 49^{6}$
(B) $3^{7} \times 49^{7}$
(C) $(3 \times 49)^{3}$
(D) $3^{6} \times 49^{5}$
63. (i) If the product of two whole numbers is zero then one number will be zero.
(ii) If product of two whole numbers is zero, then both numbers will be zero.
(A) only (i) can be true
(B) only (ii) can be true
(C) both can be true
(D) both are false
64. In a game, Raj hits a balloon. He gets 300 points, if he hits and lose 100 points, if he misses. Raj hits 15 balloons and misses 40 balloons. Find his net score
(A) 400
(B) 300
(C) 500
(D) 200
65. The perimeter of following figure is $\qquad$ cm
(A) 540
(B) 210
(C) 450
(D) 860

66. The missing number is

(A) 1
(B) 2
(C) 3
(D) 4
67. A line segment with its end points lying on a circle is called
(A) semi-circle
(B) sector
(C) chord
(D) segment
68. The length of boundary of a circle is called its $\qquad$
(A) circumference
(B) radius
(C) diameter
(D) chord
69. In the figure $\angle \mathrm{Q}=2 \angle \mathrm{~S}$ and $\angle \mathrm{QPR}=2 \angle \mathrm{RPS}$. Find $\angle \mathrm{RPS}+$ $\angle S$
(A) $60^{\circ}$
(B) $45^{\circ}$
(C) $72^{\circ}$
(D) $54^{\circ}$

70. Find the smallest number which is divisible by $6,8,9$
(A) 2012
(B) 2088
(C) 2160
(D) 2016
71. $A B$ and $P Q$ are parallel, the value of $x$ is
(A) $260^{\circ}$
(B) $129^{\circ}$
(C) $131^{\circ}$
(D) $200^{\circ}$

72. If $A C$ and $E F$ are parallel, $\angle A D B=$ $\qquad$
(A) $35^{\circ}$
(B) $95^{\circ}$
(C) $60^{\circ}$
(D) $85^{\circ}$


## BIOLOGY - (PART - D)

This part contains 12 Multiple Choice Questions number 73 to 84. Each question has 4 choices $(A),(B),(C)$ and (D), out of which ONLY ONE is correct.
73. From the following group of diseases identify the vitamin deficiency diseases:
(A) Scurvy, goitre, anaemia
(B) Kwashiorkor, marasmus, rickets
(C) Goitre, rickets, beri-beri
(D) Scurvy, rickets, beri-beri
74. In a given food there are three components A, B and C. A provide twice as much energy as B, where as component $\mathbf{C}$ has no food value but it provide bulk to food. Identify $\mathbf{A}, \mathbf{B}$ and $\mathbf{C}$.
(A) A - fat, B - carbohydrate, C - roughage
(B) $\mathbf{A}$ - protein, $\mathbf{B}$ - fat, $\mathbf{C}$ - roughage
(C) A - roughage, B - fat, $\mathbf{C}$ - carbohydrate
(D) A - fat, B - roughage, $\mathbf{C}$ - carbohydrate
75. In the given figure identify (i), (ii) and (iii).

(A) (i) - pollen sac, (ii) - anther, (iii) - filament
(B) (i) - filament, (ii) - anther, (iii) - pollen sac
(C) (i) - filament, (ii) - anther, (iii) - stamen
(D) (i) - anther, (ii) - filament, (iii) - pollen sac
76. Which of the following test describes the test for glucose (carbohydrate)?
(A) Mix the test sample with Benedict's solution and heat it
(B) Mix the test sample with Benedict's solution and do not heat it
(C) Mix the test sample with Biuret solution and heat it
(D) Mix the test sample with Biuret solution and do not heat it
77. Excessive bleeding from injury is due to lack of:
(A) Vitamin A
(B) Vitamin D
(C) Vitamin K
(D) Vitamin B
78. The androecium is....................part of flower whereas gynoecium is $\qquad$ part of flower, respectively.
(A) male, female
(B) female, male
(C) fruit, ovary
(D) ovary, fruit
79. White part of egg contains a protein.......(X)......where as milk contains a protein $\qquad$ (Y)...... respectively.
(A) $X$ - Albumin, $Y$ - Casein
(B) X - Casein, Y - Albumin
(C) X - Keratin, Y - Casein
(D) None of the above
80. Which among the following does have all modified stems:
(A) Potato, carrot, onion
(B) Onion, garlic, ginger
(C) Onion, ginger, sweet potato
(D) Radish, onion, ginger
81. Which of the following statements is incorrect?
(A) Green leaves can only make food when there is light
(B) Male part of flower develops into fruits
(C) Roots hold the plants firmly to the ground
(D) Plants need air, water and sunlight to grow
82. After fertilization, ovary transform into $\qquad$ (A) ............ and ovule develop into $\qquad$ (B) $\qquad$
(A) (A) - Pistil, (B) - Pollen
(B) (A) - Pollen, (B) - Pistil
(C) (A) - Seed, (B) - Fruit
(D) (A) - Fruit, (B) - Seed
83. Given below are the names of some animals

1. Goat
2. Human being
3. Cockroach
4. Eagle

Which of the above animals form a pair of Omnivores?
(A) (1) and (2)
(B) (2) and (3)
(C) (3) and (4)
(D) (2) and (4)
84. Stilt root is found in
(A) Rhizophora
(B) Sugarcane
(C) Mango
(D) Both (A) and (B)

## Recommended Time: 30 Minutes for Section - IV

Section - IV

## PHYSICS - (PART - A)

This part contains 3 Multiple Choice Guestions number 85 to 87. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
85. What is the nature of the image of an object formed on the inner surface of a spoon?
(A) Magnified and virtual
(B) Magnified and real
(C) Both (A) and (B)
(D) Diminished and virtual
86. The direction of light can be changed by
(A) Reflection
(B) Refraction
(C) Both (A) and (B)
(D) Neither (A) nor (B)
87. Choose the correct value of $2 i+i^{\prime}-r$ ' from the following:
(A) $90^{\circ}$
(B) $60^{\circ}$
(C) $30^{\circ}$
(D) $0^{\circ}$


## Space for Rough Work

## CHEMISTRY - (PART - B)

This part contains 3 Multiple Choice Questions number 88 to 90. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
88. In sedimentation, the upper clear liquid is called $\qquad$ \& the heavier particles that settle at the bottom are called $\qquad$ _
(A) Sediments, filtrate
(B) Filtrate, supernatant
(C) Supernatant, sediments
(D) None of these
89. Lemon juice + Baking soda + Water $\longrightarrow$ Carbon dioxide + Other products

What type of change is it?
(A) Physical
(B) Chemical
(C) Reversible
(D) Both (A) \& (C)
90. The interparticle spaces are least in:
(A) Solids
(B) Liquids
(C) Gases
(D) Equal in all the three states of matter

## Space for Rough Work

## MATHEMATICS - (PART - C)

This part contains 3 Multiple Choice Guestions number 91 to 93. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
91. Simplify $9 p q+6 p-8 q-[4 p q+2 p-\{9 p q-q-6\}]$
(A) $14 p q+4 p-9 q-6$
(B) $14 p q+4 p-9 q+6$
(C) $-14 p q+4 p-9 q-6$
(D) $14 p q+4 p+9 q-6$
92. The dimensions of rectangular field are $23 x-10$ and $14 x+8$ units. The value of $x$ for which it would be square is
(A) 7
(B) 1
(C) 2
(D) none of these
93. Area of the given figure is $\qquad$ $\mathrm{m}^{2}$
(A) 50
(B) 72
(C) 142
(D) 140


## BIOLOGY - (PART - D)

This part contains 3 Multiple Choice Guestions number 94 to 96 . Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
94. In the following figure identify
(i), (ii), (iii) and (iv)

(A) (i) - midrib, (ii) - vein, (iii) - pedicle, (iv) - lamina
(B) (i) - midrib, (ii) - vein, (iii) - petiole, (iv) - lamina
(C) (i) - vein, (ii) - midrib, (iii) - pedicle, (iv) - lamina
(D) (i) - midrib, (ii) - lamina, (iii) - vein, (iv) - Pedicle
95. In green plants, leaves perform photosynthesis with the help of green colour pigment:
(A) Lycopene
(B) Chlorophyll
(C) Bile
(D) Haemoglobin
96. Deficiency of ....................leads to goiter.
(A) Iron
(B) Milk
(C) Meat
(D) lodine

## Recommended Time: 30 Minutes for Section - V

## Section - V

## MATHEMATICS - (PART - A)

This part contains 6 Multiple Choice Questions number 97 to 102. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.
97. Three schools take part in a campaign to raise funds for eradicating hunger. School I raises Rs 9326, school II raises Rs 8140 and school III raises Rs 1099. Total amount raised by all three schools is Rs
(A) 18565
(B) 18853
(C) 18540
(D) 18088
98. Sachin takes 10 rounds of rectangular park, 50 m long and 20 m wide. Find the total distance covered by him.
(A) 140 m
(B) 14000 m
(C) 700 m
(D) 1400 m
99. The product of two two- digit numbers is 4514 . If the product of their unit digits is 4 and tens digit is 42 , then numbers are
(A) 64,74
(B) 61, 74
(C) 61,71
(D) 71,74
100. Given $a, b, c, d$ and $e$ are consecutive numbers and $a+b+c+d+e=90$, find the value of $c$.
(A) 16
(B) 15
(C) 17
(D) 18
101. In the figure, PQRS is a square of side 14 cm and two semi-circles are drawn with PQ and SR as diameter. Find the area of shaded region.
(A) $49 \mathrm{~cm}^{2}$
(B) $42 \mathrm{~cm}^{2}$
(C) $154 \mathrm{~cm}^{2}$
(D) $196 \mathrm{~cm}^{2}$

102. LCM of $4 \frac{1}{2}, 3$ and $10 \frac{1}{2}$ is
(A) 36
(B) 18
(C) 63
(D) $\frac{63}{2}$

## MATHEMATICS - (PART - B)

This part contains 6 Numerical Based Questions number 103 to 108. Each question has Single Digit Answer 0 to 9.
103. If $-6 z-\frac{1}{4}=\frac{119}{4}$, then $-z$ is
104. LCM of two numbers 20 and 16 is 80 . Then the HCF of two numbers is
105. If $\angle A D C$ and $\angle B D C$ are right angles, then $\frac{1}{10}(x+y)$ is

106. Number of integers that lie between - 5 and 3 are $\qquad$ .
107. A rectangle has its length 4 times its breadth. A square is made taking length of rectangle as side. Area of square is N times that of rectangle. Then N is
108. In the adjoining figure the arrowed lines are parallel. Find $x$


## FIITJ $\in \in$ ADMISSION TEST <br> CLASS - VII (PAPER - 1) ANSWERS

| 1. | B | 2. | B | 3. | A |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5. | D | 6. | C | 7. | C | 8. |
| 9. | B | 10. | C | 11. | D | 12. |
| 13. | C | 14. | D | 15. | C | 16. |
| 17. | B | 18. | C | 19. | D | 20. |
| 21. | D | 22. | B | 23. | C | 24. |
| 25. | D | 26. | C | 27. | C | 28. |
| 29. | B | 30. | D | 31. | C | 32. |
| 33. | A | 34. | B | 35. | D | 36. |
| 37. | C | 38. | A | 39. | C | 40. |
| 41. | C | 42. | A | 43. | B | 44. |
| 45. | A | 46. | D | 47. | C | 48. |
| 49. | D | 50. | B | 51. | C | 52. |
| 53. | C | 54. | A | 55. | C | 56. |
| 57. | C | 58. | C | 59. | A | 60. |
| 61. | D | 62. | A | 63. | C | 64. |
| 65. | A | 66. | B | 67. | C | 68. |
| 69. | A | 70. | D | 71. | A | 72. |
| 73. | D | 74. | A | 75. | A | 76. |
| 77. | C | 78. | A | 79. | A | 80. |
| 81. | B | 82. | D | 83. | B | 84. |
| 85. | A | 86. | C | 87. | A | 88. |
| 89. | B | 90. | A | 91. | A | 92. |
| 93. | C | 94. | B | 95. | B | 96. |
| 97. | A | 98. | D | 99. | B | 100. |
| 101. | B | 102. | C | 103. | 5 | 104. |
| 105. | 9 | 106. | 7 | 107. | 4 | 108. |

