PANDEY SIR'S
IITIAN CLASSES
• IIT-JEE • MEDICAL • FOUNDATION • BOARD

iSAT
IITIAN CLASSES
SCHOLARSHIP CUM ADMISSION TEST

INSTRUCTIONS:

1. This Questions paper contains 14 printed pages and 90 questions. All questions are compulsory. Please ensure that the question Paper you have received contains all questions and pages. If you find some mistake like missing questions or pages then contact the invigilator immediately.
2. The Question Paper contains 45 questions of Science, 25 questions of Mathematics and 20 questions of Mental Ability.
3. All questions are straight objective type questions and each carries 4 options for their answers out of which only one is correct.
4. Each Question carries **4 Marks**.
   There is **NO NEGATIVE** Marking.
   0 marks will be awarded for an unattempted question.
5. You have to indicate your response by darkening the appropriate bubble on the OMR sheet provided.
6. Use only HB pencil or Black/Blue Ball Pen for darkening the bubble(s).
7. Use of calculator, Blank Paper, Log Table, Slide Rule & Mobile is not allowed. If you are carrying any of these, then keep them at a place specified by invigilator at your own responsibility.
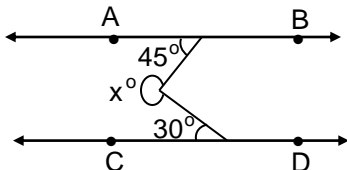
Class: 8th Moving 9th

Q1. The product of two numbers is 1936. If one number is 4 times the other, the numbers are.
(a) 16, 121   (b) 22, 88   (c) 44, 44   (d) None of these

Q2. If $\dfrac{(5x-3y)}{(5y-3x)} = \dfrac{3}{4},$ then value of $\dfrac{x}{y}$ is
(a) 2 : 9   (b) 7 : 2   (c) 7 : 9   (d) None of these

Q3. A cricketer has a mean score of 60 runs in ten innings. Then the runs scored by cricketer in 11th innings to raise the mean score to 62,is
(a) 82 runs   (b) 80 runs   (c) 85 runs   (d) 90 runs

Q4. $\dfrac{(243)^{\frac{n}{5}} \times 3^{2n+1}}{9^n \times 3^{n-1}} = ?$

(a) 1   (b) 3   (c) 9   (d) 3^n

Q5. Two circular cylinders of equal volume have their heights in the ratio 9 : 16, Find the ratio of their radii.
(a) 3 : 4   (b) 9 : 16   (c) 16 : 9   (d) 4 : 3

Q6. The simple interest on a sum of money for 3 years is Rs 240 and the compound interest on the sum at same rate for 2 years is Rs. 170. The rate percent per annum is
a) 16%   b) 8%   c) $12\dfrac{1}{2}\%$ d) $8\dfrac{1}{3}\%$

Q7. $\sqrt[3]{-2744} \div \sqrt[3]{0.008} = ?$
a) 70   b) -70 c) 14   d) -14

Q8. The product of 12% of an integer and 20% of the next integer is 61.2. The integer is
(a) 50   (b) -51 (c) 63   (d) Both a and b

Q9. If $a^2 + b^2 + c^2 - ab - bc - ca = 0$ then
a) $a = b = c$ b) $a \neq b \neq c$ c) $a = b \neq c$ d) None of these

SPACE FOR ROUGH WORK

Q10. The least number which leaves remainder 2, 3, 4, 5 and 6 on dividing by 3, 4, 5, 6 and 7 respectively is
(a) 519   (b) 318   (c) 419   (d) 518

Q11. A circular field has a circumference of 360 km. Three cyclists start together and can cycle 60 km, 72 km and 90 km a day round the field. After how many days will they meet again at starting point?
(a) 45 days   (b) 60 days   (c) 50 days   (d) 40 days

Q12. Four equal sized maximum circular plates are cut off from a square paper sheet of area 784 cm^2. The circumference of each plate is (use $\pi = \frac{22}{7}$)
(a) 20 cm   (b) 32 cm   (c) 44 cm   (d) 64 cm

Q13. Value of $\dfrac{[c^2 - (a-b)^2]}{[(b+c)^2 - a^2]} + \dfrac{[a^2 - (b-c)^2]}{[(a+c)^2 - b^2]} + \dfrac{[b^2 - (a-c)^2]}{[(a+b)^2 - c^2]}$ is
(a) 1   (b) 3   (c) (a + b + (c)   (d) 3 [a – (b – (c)]

Q14. Class X of a school collected Rs.1024 as contribution to flood relief fund. If each student contributed as much as number of students in the class. The number of students in the class are.
(a) 24   (b) 32   (c) 36   (d) None of these

Q15. If a = $\sqrt{6} + \sqrt{5}$; b = $\sqrt{6} - \sqrt{5}$, then the value of $2a^2 - 5ab + 2b^2$, is
(a) 36   (b) 37   (c) 39   (d) 41

Q16. If $a\dfrac{x-b}{a-b} + b\dfrac{x-a}{b-a} = 1$, then x is equal to
(a) a   (b) b   (c) 1   (d) ab

Q17. In the given figure, AB || CD. Value of angle x is
(a) 295°   (b) 305°
(c) 275°   (d) 285°

Q18. If the mean of the numbers 27 + x, 31 + x, 89 + x, 107 + x, 156 + x is 82, then the mean of 130 + x, 126 + x, 68 + x, 50 + x, 1+ x is
(a) 75   (b) 157   (c) 82   (d) 80

SPACE FOR ROUGH WORK

Q19. A number consists of two digits. The digit at ten's place is two times the digit at the unit's place. The number formed by reversing the digits is 27 less than the original number. Find original number.
(a) 43   (b) 36   (c) 63   (d) 34

Q20. The interior angle of a regular polygon is 135° , find number of sides of the polygon.
(a) 8   (b) 7   (c) 9   (d) 6

Q21. In figure, AB || CD, find $\angle$ a.

(a) 83° (b) 91° (c) 86° (d) 93°
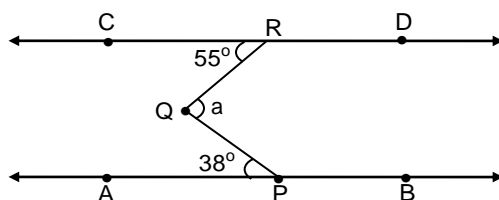
Q22. If $\sqrt{\dfrac{125\ a^6\ b^4\ c^2}{5a^4\ b^2}} = x$, then $\dfrac{x^2}{abc}$ is
(a) 15 abc   (b) 5 abc   (c) 25abc   (d) 35abc

Q23. The salary of a person was reduced by 20%. By what percent should his reduced salary be raised so as to bring it at par with his original salary?
(a) 45%   (b) 35%   (c) 25%   (d) 15%

Q24. If $3^a = 4^b = 12^c$, then c is equal to
(a) $c = \dfrac{a}{(a+b)}$ (b) $c = \dfrac{b}{a+b}$ (c) $c = \dfrac{a\ b}{(a+b)}$ (d) $c = \dfrac{(a+b)}{a\ b}$.

Q25. If $(a+b+c) = 0$ then value of $\dfrac{(b+c)^2}{3\ bc} + \dfrac{(c+a)^2}{3\ ac} + \dfrac{(a+b)^2}{3\ ab}$ is
(a) 3   (b) 1   (c) $\dfrac{1}{3}$ (d) 2
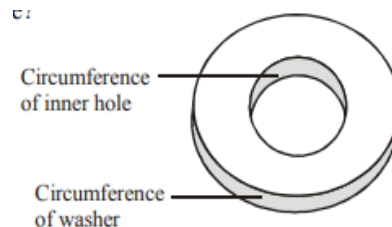

SPACE FOR ROUGH WORK

SCIENCE

PHYSICS

Q26. Range of audible sound frequency for humans is 20-20000 Hz. Ultrasound has frequency of vibration,
(a) Between 20 Hz and 20000 Hz
(b) Below 20 Hz
(c) Above 20000 Hz
(d) Between 500 and 10000 Hz

Q27. Which of the following does not produce a sound wave?
(a) A silencer fixed gun fired
(b) A bell ringing under water
(c) A hammer hitting a block of rubber
(d) An explosion on the moon

Q28. 'Bar' is the unit of
(a) Temperature
(b) Heat
(c) Pressure
(d) Current

Q29. Light travels at the fastest speed in
(a) Glass
(b) Water
(c) Hydrogen
(d) Vacuum

Q30. During a thunderstorm, an observer can see lightening before hearing its thunder. Why does he see lightening before he hears thunder?
(a) Sound travels slower than light
(b) Sound needs a medium to travel through
(c) Sound cannot reflect off surfaces as easily as light
(d) Sound is not processed by the brain as fast as light

Q31. Sonic vibrations, sent down from a ship, returned after 2 seconds. What is the depth of the sea, if the speed of sound in water is 1.5 km s^{-1} ?
(a) 150 m
(b) 3 km
(c) 1.5 km
(d) 750 m

Q32. Asteroid belt is found between ………………..
(a) Earth and Mars
(b) Mars and Jupiter
(c) Jupiter and Saturn
(d) None

Q33. Which of the following phenomena is primarily responsible for the formation of rainbow?
(a) Interference of light
(b) Diffraction of light
(c) Dispersion of light
(d) Polarisation of light

Q34. A copper disc has a circular hole drilled in it so that it can act as a washer for a nut and bolt. If this washer is heated equally all over, which of the given options will be true?

	Circumference of inner hole	Circumference of washer
(a)	Remains constant	Increases
(b)	Decreases	Increases
(c)	Increases	Decreases
(d)	Increases	Increases

Circumference of inner hole
Circumference of washer
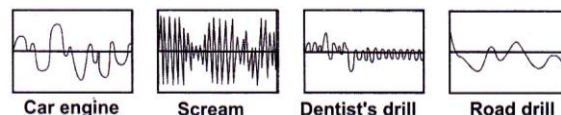

SPACE FOR ROUGH WORK

Q35. Which of the following has largest mass?
(a) Jupiter   (b) Sun   (c) Proxima centauri   (d) Andromeda

Q36. Which of the following increases when a ball is released from rest, close to the surface of moon?
(a) Energy of the ball   (b) Momentum of the ball
(c) Mass of the ball   (d) Acceleration of the ball

Q37. When ice melts,
(a) Density increases   (b) Temperature increases
(c) Mass increases   (d) Volume increases

Q38. With the help of the given figure, find which of the following options is correct?
(a) The apple pulls with greater force than the earth pulls the apple.
(b) The apple pulls with smaller force than the earth pulls the apple.
(c) The apple pulls the earth with the same force that the earth pulls the apple.
(d) All of these
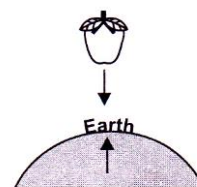
Q39. The oscilloscope traces for sound waves with different frequencies are shown below. The noises shown in the diagram in the increasing order of frequency are a
(a) Car engine, Scream, Dentist's drill, Road drill
(b) Road drill, Car engine, Dentist's drill, Scream
(c) Scream, Car engine, Dentist's drill, Road drill
(d) Dentist's drill, Road drill, Scream, Car engine

Car engine   Scream   Dentist's drill   Road drill

Q40. Water and kerosene are poured into a container. Which liquid will stay at the bottom of the container at equilibrium?
(a) Water
(b) Kerosene
(c) The one which is poured first
(d) The one which is poured later

SPACE FOR ROUGH WORK

Q41. Liquid 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) Liquid and gaseous fuels have higher ignition temperatures than the solid fuels.
(iii) Liquid and gaseous fuels are easier to store since solid fuels occupy lot of space.
(iv) Liquid and gaseous fuels burn completely not leaving any residue.
Choose the correct advantages.
(a) (i), (ii) and (iii)   (b) (i), (iii) and (iv)   (c) (ii), (iii) and (iv)   (d) (i), (ii) and (iv)

Q42. Read the following statements carefully and identify P, Q and R.
P : Obtained from petroleum and natural gas and used in the manufacture of man-made plastics.
Q: Due to its great commercial importance, it is also called 'black gold'.
R. Obtained from natural gas and used in the production of fertilizers.

	P	**Q**	**R**
(a)	Petrochemicals,	Petroleum,	Hydrogen gas
(b)	Coke	Coal,	Coal tar
(c)	Paraffin wax	Coal tar	Diesel
(d)	Bitumen	Coke	Coal gas

Q43. Sudha took a small amount of sulphur in deflagrating spoon and heated it over a burner. As soon as it started buring she put it in a gas jar and covered with a lid. After sulphur stopped burning she added a small amount of water in it and dissolved the gas is water by shaking it. She then tested the solution with red and blue litmus paper. What did she observe?
(a) In the solution the blue litmus paper turned red .
(b) In the solution the red litmus paper turned blue.
(c) There was no change in the colour of litmus paper.
(d) Blue litmus paper turned red and red litmus paper turned blue.

Deflagrating spoon

Q44. The given diagrams show the reactions of three metals with dilute hydrochloric acid. What are metals P, Q and R?

	P	**Q**	**R**
(a)	Copper	Magnesium	Zinc
(b)	Copper	Zinc	Magnesium
(c)	Magnesium	Zinc	Copper
(d)	Zinc	Magnesium	Copper

SPACE FOR ROUGH WORK

Q45. Ramesh mixed some iron filings with sulphur powder in china dish. In another dish he mixed iron filings and sulphur powder and heated the mixture.
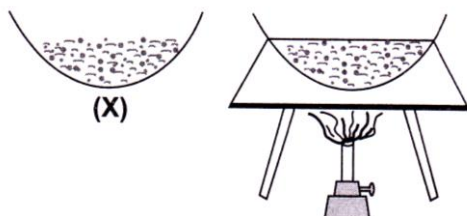
Which of his observations is not correct?
(a) Dish X shows a physical change while Dish Y shows a chemical change.
(b) In Dish X sulphur powder and iron filings can be seen separately.
(c) Iron fillings can be separated in Dish X with help of a magnet
(d) The change which has taken place in Dish Y is reversible

Q46. Given below are few statements.
I. When rubbed on fingers, bases give a soapy feeling.
II. The salt produced in neutralization reaction may be acidic, basic or neutral.
III. Antacids are acids used to treat acidity and indigestion.
Select the correct option.
(a) Only I is correct   (b) Only I and II are correct
(c) Only I and III are correct   (d) All I, II and III are correct

Q47. Few characteristics of three fuels X, Y and Z are given below.

| X	Y	Z
Not easily stored or transported	Can be stored in tanks and transported through pipes	Can be stored in tanks and transported through pipes
Extremely polluting	Produce almost no pollutants	Moderately polluting

Identify X, Y and Z respectively.
(a) LPG, Biogas, Coal   (b) Coal, Natural gas, Petroleum
(c) Petroleum, LPG, Coal   (d) Natural gas, Cow dung cake, LPG


SPACE FOR ROUGH WORK

Q48. Three experiments to investigate the reactivities of three metals are shown.
What is the correct order of reactivity (most reactive → least reactive) for these three metals?

Result : Nickel displaced   Nickel displaced   Manganese not displaced
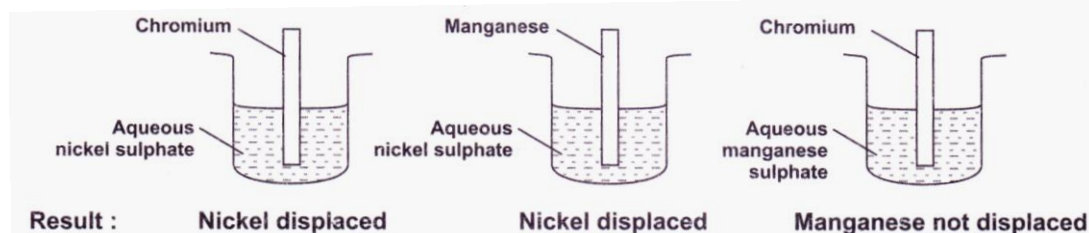
(a) Chromium, Manganese, Nickel
(b) Manganese, Chromium, Nickel
(c) Manganese, Nickel, Chromium
(d) Nickel, Chromium, Manganese

Q49. Four experiments on rusting are shown below.
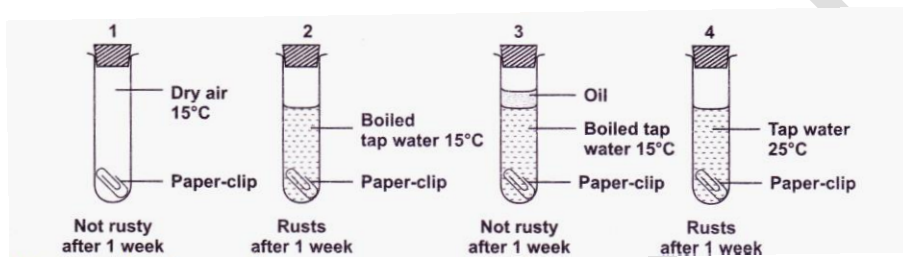
Which two experiments can be used to show that air is needed for iron to rust ?
(a) 1 and 3   (b) 1 and 4   (c) 2 and 3   (d) 2 and 4

Q50. If Raman opened the air-hole of a Bunsen burner fully and lighted the burner, he will get _____.
(a) A luminous flame which is orange-yellow in colour.
(b) A non-luminous flame which is pale blue in colour.
(c) A flame that strikes back which is thin blue or green-yellow in colour.
(d) A smoky flame which gives off a lot of soot.

Q51. Select the correct option which one rearranging gives the term for the ground-water stored between layers of hard rock below the water table.
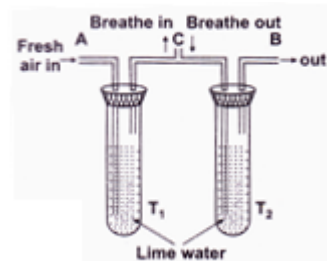(a) Duclos   (b) Refquai   (c) Ragclei   (d) Pwmas

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SPACE FOR ROUGH WORK

Q52. Observe the given apparatus carefully showing an activity performed to compare the carbon dioxide content of inhaled and exhaled air. What would be the observation for T_1 and T_2 test tubes and its correct explanation?

[(+) indicates milky colouration in lime water]

	T_1	T_2	Explanation
(a)	+++	++	CO_2 content is a little higher in inhaled air
(b)	++++	+	CO_2 content is considerable higher in inhaled air
(c)	+	++++	CO_2 content is considerably higher in exhaled air
(d)	++	++	CO_2 content is same in both inhaled and exhaled air

Q53. Match Column -I with Column-II and select the correct option form the codes given below.

	Column -I		Column -II
(a)	Scouring	(I)	Wool fibres are passed through rollers to straighten the fibres.
(b)	Shearing	(ii)	Unwinding silk fibres form a cocoon.
(c)	Reeling	(iii)	The fleece of the sheep alongwith a thin layer of skin is removed
(d)	Carding	(iv)	Stained , damaged or inferior wool is removed
		(v)	Sheared hair are washed thoroughly to remove the impurities.

(a) (a)-(iv),(b)-(iii),(c)-(v),(d)-(i)   (b) (a) - (v), (b) - (iii), (c) -(ii), (d) -(i)
(c) (a) - (v), (b) -(iii),(c)-(iv), (d)-(i)   (d) (a) -(iii), (b)-(ii), (c)-(v), (d)-(iv)

Q54. Study the table carefully:

	Sample	Blue litmus to red	Red litmus to blue
(i)	Tamarind juice	✓	✗
(ii)	Sugar syrup	✗	✓
(iii)	Lime water	✗	✓
(iv)	Soap solution	✓	✗

Which of the above are correctly matched ?
(a) (i) & (iii)   (b) (ii) & (iv)   (c) (i) & (iv)   (d) (ii) & (iii)

Q55. Out of the total water present on earth, more than 97 % is in seas and oceans, which is saline water. This cannot be utilized for human needs as humans can use only fresh water. How much fraction of the total water is available for our use?
(a) 0.3%   (b) 2.1 %   (c) 1.14 %   (d) 0.006%

SPACE FOR ROUGH WORK

Q56. Which of the following reproduces only inside a host
(a) Bacteria   (b) Virus   (c) Amoeba   (d) Fungus

Q57. Choose the correct statements
(P) Carbon dioxide is released during bread preparation.
(Q) Robert Hooke discovered cells
(R) Yellow vein Mosaic disease of Okra is caused by Virus
(S) Hepatitis A is viral disease
(a) P, R   (b) Q, S   (c) Q, R   (d) P, Q, R, S

Q58. The disease caused by a protozoan and spread by an insect is _____.
(a) Dengue   (b) Malaria   (c) Polio   (d) Measles.

Q59. Which of the following statements is incorrect for the organism shown in the figure?

(a) This organism became extinct due to over exploitation.
(b) The category to which this organism belongs also contains Quagga and Tasmanian wolf.
(c) This organism was eliminated due to continuous illegal poaching.
(d) This organism is critically endangered due to continuous illegal poaching.

Q60. Air is a mixture of various gases. One of the gases is 21% part of the air and is essential for the survival of human beings. This gas is
(a) Nitrogen   (b) Oxygen   (c) O zone   (d) Argon

Q61. Which of the following groups represents the bacterial diseases?
(a) Cholera, tuberculosis, malaria, measles   (b) Small pox, tuberculosis, malaria, typhoid
(c) Cholera, tuberculosis, typhoid, measles   (d) Cholera, anthrax, tuberculosis, typhoid

SPACE FOR ROUGH WORK

Q62. The given figure shows the nitrogen cycle. Match the following table according to the given figure and select the correct option

	Bacteria		Letters
A	Able to form nodules with plants	(i)	R
B	Able to denitrify	(ii)	Q
C	Able to nitrify	(iii)	S
D	Able to use ammonium as energy source	(iv)	T
E	Able to fix nitrogen form air	(v)	P

	A	B	C	D	E
(a)	(iv)	(v)	(i)/(ii)	(i)	(ii)/(v)
(b)	(v)	(iv)	(iii)	(iv)	(v)
(c)	(v)	(iii)	(i)	(iv)	(ii)
(d)	(v)	(iv)	(i)/(iii)	(i)	(ii)/(v)
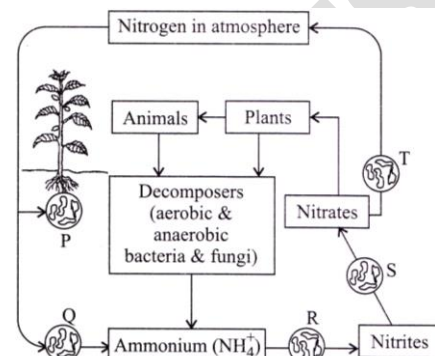
Q63. Read the following statements and select the correct option.
Statement 1: Wind pollinated flowers need to produce more quantities of pollen grains.
Statement 2: Seed from cross pollinated flowers produce weaker and less healthy plants.
(a) Both statements 1 and 2 are true and statement 2 is the 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 but statement 2 is false.
(d) Both statements 1 and 2 are false.

Q64. Which of these can be found in a tropical rainforest?
(a) Sloth and Lion-tailed macaque   (b) Camels and Cacti
(c) Lemmings and Penguins   (d) Arctic tern and Siberian cranes

Q65. A schematic representation of the blood circulation is given. Which circulatory parts are incorrectly placed in it?
(a) Right atrium and right ventricle
(b) Left atrium and left ventricle
(c) Pulmonary artery and pulmonary veins
(d) Aorta and vena cava
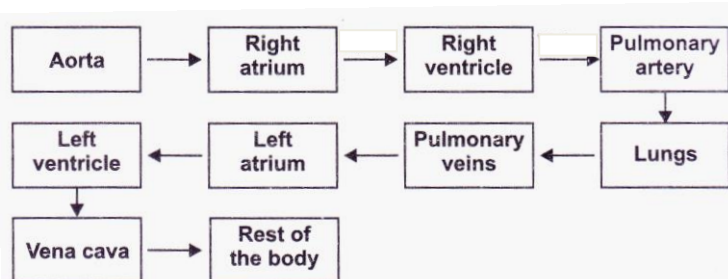
SPACE FOR ROUGH WORK

Q66. Large scale cutting of trees and clearing of forests is called
(a) Reforestation   (b) Global warming   (c) Deforestation   (d) Afforestation

Q67. *Penicillium* is a
(a) Algae   (b) Fungus   (c) Bacteria   (d) Protozoan

Q68. The given figure shows an irrigation method used in agricultural practice. Which of the following is correct regarding this irrigation method?
(a) It is the best technique for watering fruit plants, gardens and trees.
(b) It is a boon in regions where availability of water is poor.
(c) The method provides water to the plants drop by drop at their roots.
(d) All of these

Q69. Latika observed her grandmother adding lots of salt on unripe mangoes to prepare pickles. Her grandmother also added excess of oil in the pickle jar. What could be the reason for it?
(a) Salt prevents growth of microorganisms be retaining moisture in the food item and oil provides an environment in which microorganisms cannot grow.
(b) Salt prevents growth of microorganisms by forcing them to lose water by osmosis and oil provides an environment in which microorganisms cannot grow.
(c) Salt prevents growth of microorganisms by retaining moisture in the food item and oil prevents their growth by forcing out water from them by osmosis.
(d) Salt prevents growth of microorganisms by forcing them to lose water by osmosis and oil prevents their growth by retaining moisture in the food item.

**Q70.** Look at the given cell carefully. Identify the primary function of the part labelled 'Y'
(a) It controls the movement of materials in and out of the cell.
(b) It controls all the activities of the cell.
(c) It contains many cell parts.
(d) It provides protection to the cells.
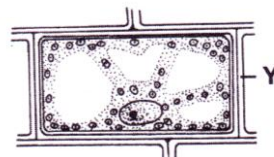

SPACE FOR ROUGH WORK

Direction (Questions Q.71-Q.72) There are three circles in the following diagram. A total number of 100 persons were surveyed and the number in the diagram indicates the number of tourists who visited different states. 58 tourists visited Sikkim and 42 tourists visited Karnataka.
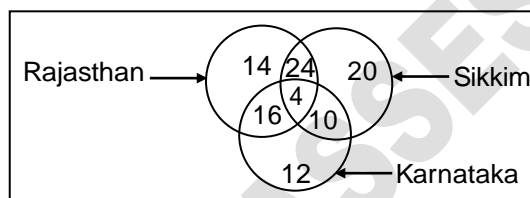
Q71. How many tourists have visited at least two states?
(a) 46   (b) 50   (c) 54   (d) 58

Q72. How many tourists have visited only two states?
(a) 46   (b) 50   (c) 54   (d) 96

Q73. In a certain coding language: if OUIAE = 15, UEIOA = 21 , EAOUI = 5, then AEIOU =

(a) 5   (b) 9   (c) 15   (d) 1

Q74. In a family of six persons, A is the grandfather of F. D and E are children of B and C. C and D are females. How is B related to C?
(a) Father   (b) Mother   (c) Husband   (d) Wife

Q75. Choose the correct mirror-image most closely resembles the word **source,** from the four given alternatives.

(a) ƨ o u ɿ ɔ ɘ   (b) ꙅoɿuoƨ   (c) ɘ ɿ ɔ u o ƨ   (d) e c r u o s

Directions (Q.76 – Q.78) Study the diagram and answer the questions that follow.
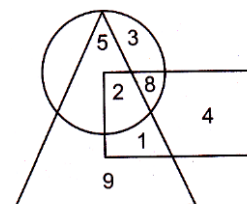
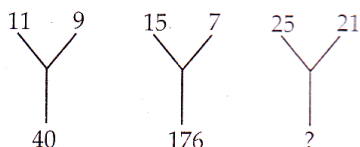**Q76.** In the following options what are the numbers that lie inside exactly two figures?
(a) 2, 1   (b) 5, 1   (c) 5, 9   (d) 9, 1

Q77. Find out the number that lies inside all the figures.
(a) 9   (b) 2   (c) 8   (d) 1

Q78. Find out the number that lies only inside the triangle.
(a) 9   (b) 5   (c) 2   (d) 1

SPACE FOR ROUGH WORK

Directions (Q.79 – Q.81) In each of the following questions, a word has been given, followed by four other words, one of which cannot be formed by using the letters of the given word. Find that word.

Q79. INTELLIGENCE
(a) TELLING   (b) GENTLE   (c) NEGLECT   (d) GENPEC

Q80. PROSPECTIVE
(a) VECTOR   (b) PECTER   (c) ROSTIVE   (d) TERMINATE

Q81. IMPASSIONABLE
(a) IMPASSABLE   (b) IMPOSSIBLE   (c) IMPASSIVE   (d) IMPASSION

Q82. Bharti is standing at the South-East corner of a rectangular field. She is moving from the corner of rectangular field in anti-clockwise direction. If she covers 180°, then what is her direction from the centre of the field?
(a) North   (b) East   (c) North-West   (d) North-East

Q83. X was born on March 6, 1993. The same year independence day was celebrated on Friday. On which day was X born?
(a) Thursday   (b) Friday   (c) Saturday   (d) Sunday

Q84. Select the missing number

```
  11   9        15   7        25   21
    \ /           \ /           \ /
     Y             Y             Y
     |             |             |
    40            176            ?
```

(a) 184   (b) 210   (c) 241   (d) 425

Q85. If 2 is subtracted from the middle digit of each of the following numbers and then the positions of the digits are reversed, which of the following will be the last digit of the middle number after they are arranged in descending order?
489, 361, 154, 271, 542
(a) 5   (b) 4   (c) 2   (d) 3

SPACE FOR ROUGH WORK

ANSWERS

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