VELAMMAL NEXUS

I – QUEST '24

SAMPLE QUESTION PAPER

CLASS – VII

I-Quest '24 is a talent search exam for Foundation and Non-Foundation students of classes V to VIII among the Velammal Nexus Schools. It exposes the students for competitive exam based on 21st century skills. This exam is scheduled in the month of November.

- This sample question paper will give a clarity on topology of the exam.
- Solving the sample question paper will give hands on experience and increase the confidence of the students to face the final exam.
- Students can seek parents help to solve the questions.
- Similar questions will reflect in the final paper.
- Answer key will be displayed in the class.
- Completed question paper to be submitted to the class teacher after school reopening.
- Prepare well for I-Quest '24 exam and grab attractive prizes and cash awards.

GENERAL INSTRUCTIONS FOR THE FINAL EXAM

(I-QUEST '24)

Mode of I-QUEST question paper	Candidates will be given an OMR sheet to mark the answers with a black or blue ballpoint pen
Duration of the exam	2 hours and 30 minutes
Question Type	Multiple choice questions
Total number of questions	The question paper consist of 100 questions and it is divided into four sections A,B,C & D (Maths, Physics, Chemistry & Reasoning) Candidates will have to answer all the questions.
Total marks	100 marks
Marking scheme	1 mark will be awarded for each correct answer 0 mark for each wrong answer or unattempted question

MATHEMATICS

1. The value of $x + (y + z) - (x + y) + z$ for $x = -2, y = -1$ & $z = -3$ is

   1) 14 2) -12 3) -6 4) 10

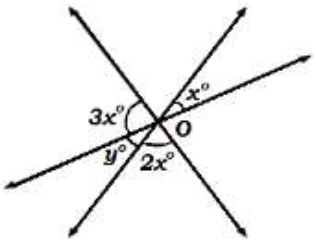
2. In the given figure, the value of $x^o + y^o$ is

   1) 60^0

   2) 68^0

   3) 48^0

   4) 78^0



3. There are some lotus flowers in a lake. If one butterfly sits on each flower, one butterfly is left. If two butterflies sit on each flower, one flower is left. What is the number of flowers and butterflies respectively?

   1) 3,5 2) 3,2 3) 4,3 4) 3, 4

4. There are 100 multiple choice questions in an examination for every correct answer the student gets 5 marks and for every wrong answer 2 marks are deducted from the total score of correct answers. Suppose the student attempts all the questions and his total score is 220, how many questions did he attempt correctly

   1) 65 2) 60 3) 80 4) 79

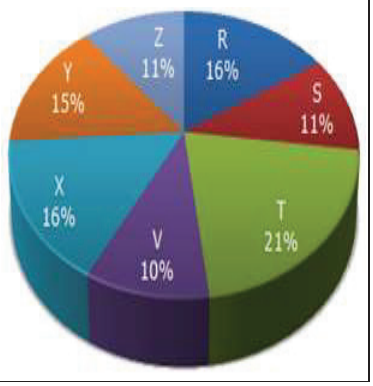
5. If cost of an apple is ₹$20\frac{3}{4}$ and that of an orange is ₹$15\frac{1}{2}$, then the cost of 4 apples and 14 oranges is

   1) ₹100 2) ₹250

   3) ₹300 4) ₹400

Directions: (Q.No. 6 & 7) : Study the following pie-chart & the table and answer the questions based on them. It shows the proportion of Population of Seven Villages in 1997

Village	% population below poverty line
X	38
Y	52
Z	42
R	51
S	49
T	46
V	58



6. If the population of village R in 1997 is 32000, then what will be the population of village Y below poverty line in that year?

   1) 14100 2) 15600

   3) 16500 4) 17000

7. The ratio of population of village T below poverty line to that of village Z below poverty line in 1997 is

   1) 11 : 23 2) 13 : 11

   3) 23 : 11 4) 11 : 13

8. How many of the following letters has 2 as order of rotational symmetry?
   X, Y, Z, W, O, I, H, A

   1) 5 2) 2 3) 8 4) 4

9. On Monday, Raja sold 17L of milk for ₹ 919.70. On Tuesday, he sold 15L of milk for ₹ 781.50. On which day he gets better price ?

   1) Monday 2) Tuesday

   3) Same on both days 4) Can't say

SPACE FOR ROUGH WORK

10. Read the statements carefully and state T for true and F for false

(i) 0 is neither a positive nor a negative rational number

(ii) Subtracting $\frac{1}{2}$ from the reciprocal of $\frac{4}{5}$ gives $\frac{3}{4}$

(iii) For a non-zero integer 'm', $m \div 0$ is not defined

(iv) $[25 - 16 + 18 - (-3)] \div (-15) = 2$

	(i)	(ii)	(iii)	(iv)
1)	T	F	F	F
2)	T	T	F	F
3)	T	T	T	F
4)	T	T	F	T

11. Find the number which is subtracted from the multiplication of 7.6 and 3.1 to get 2.

1) 21.56 2) 23.03

3) 29.32 4) 26.32

12. Which of the following rational numbers satisfies $4(a + b) = 10(b + c)$

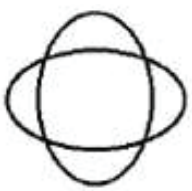
1) $a = -2,\ b = \frac{2}{3},\ c = -\frac{2}{5}$

2) $a = -10, b = -\frac{9}{11}, c = -\frac{7}{12}$

3) $a = -\frac{7}{21}, b = -\frac{7}{11}, c = \frac{5}{12}$

4) $a = -2,\ b = -\frac{2}{3},\ c = -\frac{2}{5}$

13. What will be the rotational symmetry of adjacent figure ?



1) 5
2) 2
3) 8
4) 4

14. If the value of the expression $2x - (-5x) + kx - 7$ is equal to 10 when $x = -1$, then the value of k is

1) -24 2) 13 3) -12 4) -19

15. The value of $\left(\frac{x^{-2} \times y^{-3}}{x^{-3} \times y^{-4}}\right)$ is

1) $x^{-2}y^{-4}$ 2) xy^3

3) xy 4) xy^2

16. Three numbers are in the ratio $\frac{1}{2} : \frac{2}{3} : \frac{3}{4}$. If the difference between the smallest and largest numbers is 36, sum of the numbers is

1) 227 2) 276 3) 127 4) 176

17. Which of the following is TRUE

1) 2^4 is greater than 4^2

2) $\{(7^2)^3 \times 7^4\} \div 7^{13} = 7^7$

3) $(x^m \div x^n) \times (x^n \div x^m) = 1$

4) $2908.789 = 290.8789 \times 10^3$

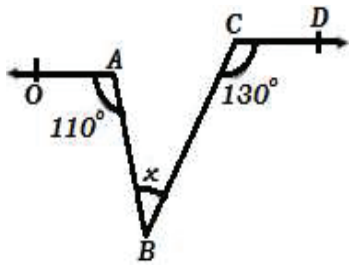
18. In the given figure, if $\angle OAB = 110^o$, $\angle BCD = 130^o$, then the value of x^o is

1) 60^0

2) 50^0

3) 40^0

4) 70^0



19. Priya bought a cell phone for ₹28550 and sold it to Arjun at a gain of 10%. What did Arjun pay for the cell phone?

1) ₹42500 2) ₹32400

3) ₹31405 4) ₹30500

20. Sixty five percent of a number is 42 less than four fifth of that number. What is the number?

1) 140 2) 280 3) 320 4) 240

SPACE FOR ROUGH WORK

21. Manju lent ₹7500 at the rate of 7% p.a. for 8 years and Ritu lent ₹ 9200 at the rate of 6% p.a., for 4 years. Who earned more interest and by how much ?

1) Manju, ₹1992 2) Ritu, ₹1992

3) Manju, ₹2948 4) Ritu, ₹2948

22. If $\frac{k}{2}+\frac{1}{2}=\frac{k}{3}-\frac{1}{3}$, then the value of $4k+5$ is

1) 8 2) 5 3) -5 4) -15

23. The descending order of the fractions $\frac{4}{3},\frac{5}{6},\frac{7}{8},\frac{6}{5}$

1) $\frac{7}{8}>\frac{6}{5}>\frac{4}{3}>\frac{5}{6}$ 2) $\frac{4}{3}>\frac{6}{5}>\frac{7}{8}>\frac{5}{6}$

3) $\frac{4}{3}>\frac{7}{8}>\frac{6}{5}>\frac{5}{6}$ 4) $\frac{5}{6}>\frac{6}{5}>\frac{7}{8}>\frac{4}{3}$

24. **Statement - I** : $15^0=14^0+1$

Statement II : If $4^{k+1}=64$, then the value of $(-1)^{2k+1}=1$

1) Only Statement - I is true

2) Only Statement - II is true

3) Both Statements are true

4) Both Statements are false

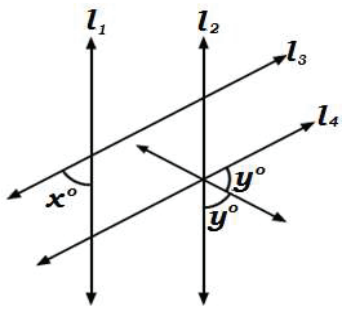
25. In the given figure, if $l_1 \parallel l_2$ and $l_3 \parallel l_4$, what is y^o in terms of x^o ?

1) 90^0+x^o

2) 90^0+2x^o

3) $90^0-\frac{x^o}{2}$

4) 90^0-2x^o



26. Simplify:

$[(\frac{-9}{7}\times\frac{4}{5})-(\frac{8}{7}\times\frac{-10}{3})+(\frac{1}{2}\times\frac{3}{4})]\times$

$[(\frac{24}{9}\times\frac{3}{8})-(\frac{9}{8}\times\frac{16}{18})]$

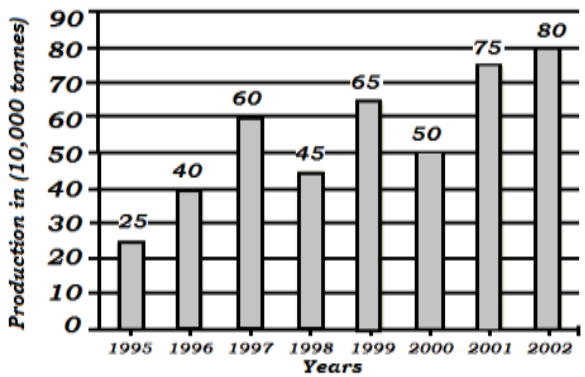
1) 0 2) 1 3) -1 4) Not defined

Directions : (Q.No. 27 & 28):

Study the bar Chart and answer the question based on it. Production of Fertilizers by a Company

(in 1000 tonnes) Over the Years

27. What was the percentage decline in the production of fertilizers from 1997 to 1998?



1) $33\frac{1}{3}\%$ 2) 25%

3) 20% 4) 21%

28. The average production of 1996 and 1997 was exactly equal to the average production of which of the following pairs of years?

1) 2000 and 2001

2) 1999 and 2000

3) 1998 and 2000

4) 1995 and 2001

SPACE FOR ROUGH WORK

29. Which of the following statement is incorrect ?

1) The rational numbers $\frac{-5}{-7}$ and $\frac{5}{17}$ lie on the same side of zero on the number line

2) $-\frac{5}{7}$ lies to the left of $-\frac{3}{5}$ on the number line

3) The rational numbers $\frac{5}{-7}$ and $\frac{-5}{17}$ lie on the opposite side of zero on the number line

4) All of these

30. **Match the following:**

Column – I	**Column – II**
(a) $[-18] \div (7+2)$	i) 0
(b) $[(2 \times 19) + (1-20)]$	ii) -2
(c) $2 \times [1-(19-6)]$	iii) -24
(d) $23-[23-\{23-(23-\overline{23-23})\}]$	iv) 19

1) a - ii; b - i; c - iv; d - iii

2) a - ii; b - iii; c - iv; d - i

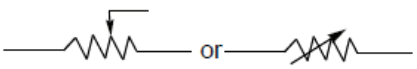
3) a - ii; b - iii; c - i; d - iv

4) a - ii; b - iv; c - iii; d - i

PHYSICS

31. The electrical symbol for a variable resistance is _____

1) 

2) 

3) 

4) 

32. Given the distance between earth and sun is 1.6×10^8 km and velocity of light is 3×10^5 km/sec. The time taken for sunlight to reach the earth is

1) 433.3 sec 2) 733.3 sec

3) 533.3 sec 4) 633.3 sec

33. A pendulum X makes 30 complete oscillations in 15 seconds. If another pendulum Y makes 19 complete oscillations in 9 seconds then, select the incorrect statement(s)

a) The string of pendulum Y is longer than that of pendulum X.

b) The angle of swing of release of pendulum changes its time period

c) Pendulum Y has a shorter period than pendulum X

d) The higher mass of the bob of pendulum corresponds to its lower time period

1) b and c only 2) c only

3) b, c and d only 4) a, b and d only

34. Read the given statements carefully and select the correct option.

a) In case of an electric cell, chemical energy is converted into electrical energy.

b) When positive and negative terminals of a given number of cells are connected together separately, they are said to be in series combination.

1) Only a is correct

2) Only b is correct

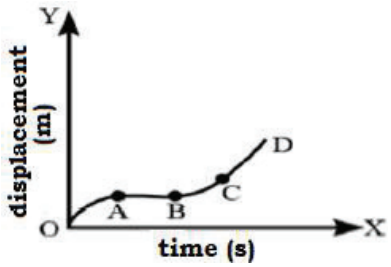
3) Both a and b are correct

4) Both a and b are incorrect

SPACE FOR ROUGH WORK

35. The water heater of a shower is connected through circuit breaker. The purpose of the circuit breaker is
1) To cut off the current when the shower is turned off
2) To cut off the current when the water heater is switched off
3) To cut off the current when there is a short circuit
4) To cut off the current when the water reaches the preset temperature

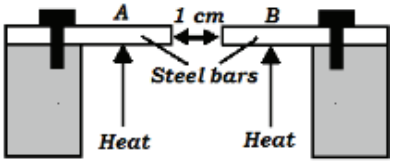
36. The graph between the displacement x and time t for a particle moving in a straight line is shown in figure. During the interval OA, AB, BC and CD, the acceleration of the particles is



1) OA → +; AB → 0; BC → +; CD → +
2) OA → −; AB → 0; BC → +; CD → 0
3) OA → +; AB → 0; BC → −; CD → +
4) OA → −; AB → 0; BC → −; CD → 0

37. Miniature Circuit Breaker (MCB) works on the principle of
1) Heating effect of electric current
2) Chemical effect of electric current
3) Magnetic effect of electric current
4) None of these

38. In the arrangement, two identical steel bars A and B are fixed and heated as shown in the given figure.



On heating the bars, following observations are made
a) The space between the bars decreases
b) Bar A contracts on heating.
c) Length of bar A increases while that of B decreases
d) Metals are good conductor of heat
Which of the given observation(s) is/are correct?
1) a and c only 2) a and d only
3) b only 4) b, c and d only

39. The hottest natural temperature ever recorded on earth is _____
1) 300 K 2) 129.85 K
3) 329.85 K 4) 310.15 K

40. A charge of 2500 C flows through a circuit in 40 sec. Calculate the current.
1) 66 amp 2) 62.5 amp
3) 200 amp 4) 250 amp

41. In an electric circuit, if you have two identical bulbs connected in parallel, and one of the bulbs burns out and stops working, what will happen to the other bulb?
1) The other bulb will also burn out
2) The other bulb will become brighter
3) The other bulb will stay lit
4) The other bulb will become dimmer

SPACE FOR ROUGH WORK

42. A dog pants with its tongue sticking out on a hot day the reason is
1) It is its habit
2) Producing more saliva cools down the body temperature
3) Saliva vapourises, cooling tongue
4) It is a genetic disease found in a few animal like dogs

43. A marble tile would feel cold as compared to a wooden tile on a winter morning, because the marble tile
1) Is a better conductor of heat than the wooden tile
2) Is polished while wooden tile is not polished
3) Reflects more heat than wooden tile
4) Is a poor conductor of heat than the wooden tile

44. Read the following three statements carefully and choose the correct option.
Statement-I : The bulb of one thermometer is spherical while that of the other is cylindrical. Both have equal amount of mercury. The response of the cylindrical bulb thermometer will be quicker.
Statement-II : The range of clinical thermometer is 35° C to 42° C
1) Statement I and II are true
2) Statement I and II are false
3) Statement I is true, Statement II is false
4) Statement I is false, Statement II is true

45. On which of the following scales of temperature, the temperature is never negative?
1) Celsius 2) Fahrenheit
3) Reamer 4) Kelvin

46. Vijay and Ajith measured their body temperature Vijay found his to be 98.6°F and Ajith recorded 37°C. Which of the following statement is true
1) Vijay has a higher body temperature than Ajith
2) Vijay has a lower body temperature than Ajith
3) Both have normal body temperature
4) Both are suffering from fever

47. The clocks and watches which are used for measuring time are based on
1) Rectilinear motion
2) Circular motion
3) Periodic motion
4) Rotational motion

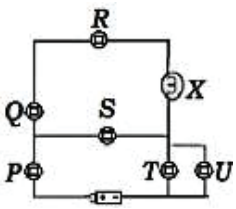
48. The most appropriate unit for expressing the speed of a space rocket is
1) m/s 2) km/s
3) km/h 4) km/min

49. A student walks to his school which is at a distance of 4 km from his home in 30 minutes. On reaching school, he finds that the school is closed and comes back in his friend's vehicle to home in 10 minutes. His average speed in km/h is
1) 8 km / h 2) 24 km/ h
3) 12 km/h 4) 20 km/h

SPACE FOR ROUGH WORK

50. The materials used in sim cards, computers and ATM cards are
1) Conductors 2) Insulators
3) Semiconductors 4) All of these

51. The given figure shown six bells P, Q, R, S, T, U and a bulb X connected in a circuit. Which of the given bells will continue to ring even if bulb X fuses?
1) Q, R and S only
2) Q and U only
3) P, S, T and U only
4) P, Q, R, S and T



52. Which of the following explain acceleration ?
1) Speeding up
2) Changing directions
3) Slowing down
4) Constant speed

53. Aaradhya and Lakshith are performing some experiments by keeping two containers, the container A and container B are filled with equal amount of boiling water and the temperature of the water in the containers is measured with a thermometer some time later. It is observed that container A has a much lower temperature than container B. What are the possible reasons?
a) Container A is black and Container B is silver
b) Container A has a lid and Container B is not covered
c) Container A is made of steel and Container B is made of clay
1) a & b only 2) a and c only
3) b and c only 4) a, b & c

54. A particle is moving in a circle of diameter 20 m. what is its distance and displacements for 2.5 rounds?
1) 157 m, 20 m
2) 20 m, 157 m
3) 137 m, 20 m
4) 20 m, 137 m

55. **Match the following :**

Column – I	Column - II
a) ms	p) 10^{-6} s
b) μs	q) 10^{-8} s
c) 1 day	r) 10^{-3} s
d) shake	s) 86400 s

1) a – p, b – q, c – r, d - s
2) a – q, b – s, c – p, d - r
3) a – r, b – p, c – s, d - q
4) a – s, b – r, c – q, d - p

56. **Match the following :**

a) distance between Earth & Stars	p. Microns
b) Inter atomic distance in a solid	q. Angstroms
c) Size of the nucleus	r. Light years
d) Wavelength of infrared laser	s. Fermi
	t. Kilometre

1) a – t, b – s, c – q, d – p
2) a – r, b – q, c – s, d – p
3) a – t, b – q, c – s, d – r
4) a – r, b – s, c – p, d – q

57. You are on a frictionless horizontal plane. How can you get off if no horizontal force is exerted by pushing against the surface?
1) By jumping
2) By spitting or sneezing
3) By rolling your body on surface
4) By running on the plane

SPACE FOR ROUGH WORK

58. The time period of two simple pendulums at a place are in the ratio 2 : 1. What will be the ratio of their lengths?
1) 6 : 1 2) 8 : 1 3) 6 : 5 4) 4 : 1

59. Among the following the correct statement is/are
a) a body can have constant velocity but varying speed
b) a body can have constant speed but has no displacement
c) a body having constant speed cannot have an acceleration
d) a body having constant speed can have varying velocity
1) a & c 2) b & d
3) a & b 4) b & c

60. Lakshith has to go 50 m due north, 40 m due east and 20 m due south to reach a field, the distance he has to walk to reach the field and the magnitude of displacement from his house to the field respectively are
1) 90 m, 75 m 2) 110 m, 50 m
3) 50 m, 110 m 4) 110 m, 75 m

CHEMISTRY

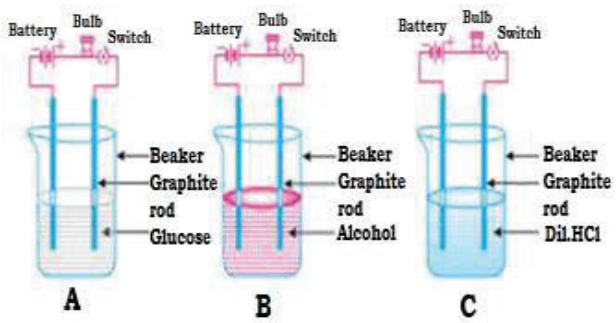
61. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solution would reverse the change?
1) Baking Powder
2) Lime
3) Ammonium hydroxide solution
4) Hydrochloric acid

62. **Match the following:**

Column – I	Column – II
(a) Bleaching powder	i) Preparation of glass
(b) Baking Soda	ii) Production of H_2 and Cl_2
(c) Washing Soda	iii) Decolourisation
(d) Sodium chloride	iv) Antacid

1) a - ii; b - i; c - iv; d - iii
2) a - iii; b - ii; c - iv; d - i
3) a - iii; b - iv; c - i; d - ii
4) a - ii; b - iv; c - i; d - iii

63. Suhana takes three beakers, A, B and C filled with aqueous solutions of glucose, alcohol and hydrochloric acid respectively as shown in the following figure?



Which of the following statement is correct in terms of glowing of bulb when the switch is ON?
1) Bulb A and B do not glow but bulb C glows.
2) Bulb A and C do not glow but bulb B glows.
3) Bulb B and C do not glow but bulb A glows.
4) All the bulbs glow.

SPACE FOR ROUGH WORK

64. Which one of the following can be used as an acid-base Indicator by a visually impaired student?
1) Litmus
2) Turmeric
3) Vanilla Essence
4) Petunia leaves

65. Consider the following statement and choose the incorrect one.
1) Pure water is neutral, the concentrations of hydrogen ions and hydroxide ions are equal
2) Acidic solutions have excess of hydrogen ions
3) The basic solutions have excess of hydroxide ions
4) A solution having a high concentration of hydrogen ions has a high pH value

66. Phosphoric acid is used in
1) Explosive
2) Dry Cleaning
3) Flavored drink
4) Manufacture of Fertilizer

67. Lime water reacts with chlorine to give
1) Bleaching Powder 2) Baking Powder
3) Baking Soda 4) Washing soda

68. Brine is an
1) Aqueous solution of Sodium hydroxide
2) Aqueous solution of Sodium carbonate
3) Aqueous solution of Sodium chloride
4) Aqueous solution of Sodium bicarbonate

69. Sodium hydrogen carbonate when added to acetic acid evolves a gas. Which of the following statements are true about the gas evolved?
a) It turns lime water milky
b) It extinguishes a burning splinter
c) It dissolves in a solution of sodium hydroxide
d) It has a pungent odour
1) a and b 2) a, b and c
3) b, c and d 4) a and d

70. Which salt is a neutral salt?
1) NH_4Cl 2) CH_3COONH_4
3) CH_3COONa 4) Na_2CO_3

71. Which of the following is viscous in nature?
1) Water 2) Gas 3) Alcohol 4) Honey

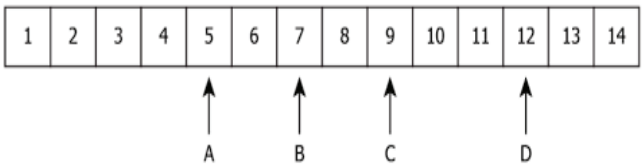
72. Which of the following were used to develop photographic plates?
1) Silver iodide
2) Sodium thiosulphate
3) Hydrochloric acid
4) Bromine

73. Chemical name of Neela thotha is
1) Potassium chloride
2) Copper sulphate
3) Hydrochloric acid
4) Sodium hydroxide

74. Dilute acid does not produce carbon dioxide on being treated with
1) Marble 2) Lime
3) Baking Soda 4) Lime Stone

SPACE FOR ROUGH WORK

75. The image shows the pH values of four solutions on pH scale.



Which solutions are alkaline in nature?

1) A and B 2) B and C

3) C and D 4) A and D

76. Which acid is used in cola to give it a biting sharp taste

1) Sulphuric acid (H_2SO_4)

2) Tartaric acid

3) Hydrochloric acid

4) Nitric acid

77. Due to excess passing of CO_2 through an aqueous solution of slaked lime, its milkiness fades because

1) Calcium carbonate is produced

2) Calcium bi-carbonate is produced

3) Calcium oxide is produced

4) Of the production of more heat

78. Which one of the following is hydracid?

1) H_3PO_4 2) H_2SO_4 3) HCN 4) HNO_3

79. An indicator is what type of compound ?

1) Strong acid only

2) Reducing agent

3) Weak base or acid only

4) All of these

80. Which of the following acids are edible

1) Nitric acid

2) Tartaric acid

3) Hydrochloric acid

4) Carbonic acid

81. Which of the following acid(s) never forms acidic salt?

a) HCl b) H_3PO_4 c) H_2SO_4 d) H_2CO_3

1) a only 2) d only

3) a and d both 4) a and c both

82. In terms of acidic strength which one of the following is in the correct increasing order?

1) water<hydrochloric acid<acetic acid

2) water<acetic acid<hydrochloric acid

3) acetic acid<water<hydrochloric acid

4) hydrochloric acid<water<acetic acid

83. Curd cannot be stored in

i) Brass vessel ii) Copper vessel

iii) Plastic iv) Bronze

1) i, ii, iii 2) ii, iii, iv

3) i, ii, iv 4) iv only

84. What happens when a solution of an acid is mixed with a solution of a base in a test tube?

i) Temperature of the solution decreases

ii) Temperature of the solution increases

iii) Temperature of the solution remains the same

iv) Salt formation takes place

1) i and iv 2) i and iii

3) ii only 4) ii and iv

85. Which of the following statements is correct about an aqueous solution of an acid and of a base?

a) Higher the pH, stronger the acid

b) Higher the pH, weaker the acid

c) Lower the pH, stronger the base

d) Lower the pH, weaker the base

1) a and c 2) b and d

3) a, b and d 4) c only

SPACE FOR ROUGH WORK

86. Arunima filled the following substances into a graduated cylinder. Where will the substance X appear after filling all substances in the graduated cylinder?

Substance	Density (g/ml)
Water	1.0
Oil	0.80
X	0.88
Mercury	8.6

1) X will appear between oil and water in the graduated cylinder
2) X will appear between mercury and water in the graduated cylinder
3) X will appear just below the water in the graduated cylinder
4) X will appear just above the mercury in the graduated cylinder

87. _____ is present in tooth enamel, when its nature is basic.

1) $CaCO_3$ 2) $Ca_3(PO_4)_2$
3) $Ca_3(PO_3)_2$ 4) Both 2 and 3

88. **Statement-I :** Loss of water of crystallization from a hydrated salt to the atmosphere is called efflorescence.
Statement-II : Materials which have a great tendency to absorb moisture in a large amount is called hard water

1) Statement-I is true
2) Statement-II is true
3) Both Statements-I & II are true
4) Both Statements-I & II are false

89. ___ is passed through lime water. It turns milky due to formation of ____.

1) oxygen, calcium oxide
2) nitrogen, lime water
3) carbon dioxide, calcium carbonate
4) carbon dioxide, calcium oxide

90. Every drop counts is a slogan related to

1) counting of drops of any liquid
2) counting water drops
3) importance of water
4) importance of slogan

REASONING

91. Complete the series:
UPI, ?, ODP, MBQ, IAW

1) RHJ 2) SHJ
3) SIJ 4) THK

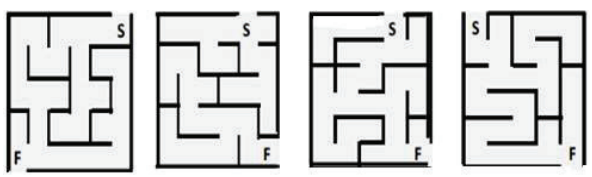
92. Fill the blank spaces in the series:
BA _ B _ AABB _ A _ _ A _ BB

1) ABAAAB 2) BBAABB
3) ABABBA 4) BAAABB

93. Choose the odd one out:

1) 131 2) 151
3) 161 4) 171

94. Choose the odd one out:



1) 2) 3) 4)

SPACE FOR ROUGH WORK

95. Suresh walked 8 m towards the North. He turned to his right and walked 16 m, then turned to his left and walked 5 m and again he turned to his left and walked 16 m. Now how far is he from his starting point?

1) 32 m 2) 23 m

3) 13 m 4) 16 m

96. In a certain code, 13479 is written as AQFJL and 5268 is written as DMPN.

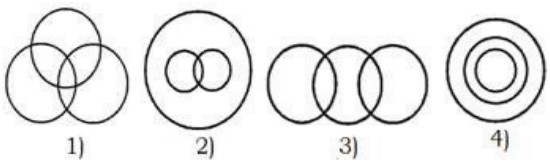
How is 396824 written in that code?

1) QLPNKJ 2) QLPNMF

3) QLPMNF 4) QLPNDF

97. Four diagrams marked 1, 2, 3 and 4 are given below. The one that best illustrates the relationship among three given classes:

Women, Teachers, Doctors



98. Crime : Police : : Flood : ?

1) Dam 2) River

3) Rain 4) Reservoir

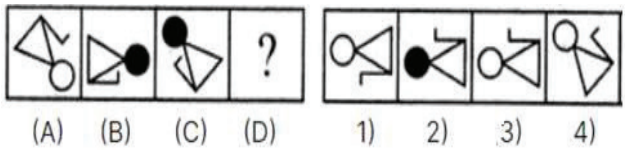
99. If in a code GO = 105, SO = 285, then how RAT will be written?

1) 280 2) 295

3) 345 4) 360

100. Select a suitable figure from the Answer figures that would replace the question mark (?)

Problem figure: Answer figure:



SPACE FOR ROUGH WORK

VELAMMAL NEXUS

(I-QUEST '24)

MATHEMATICS

1	① ② ③ ④	
2	① ② ③ ④	
3	① ② ③ ④	
4	① ② ③ ④	
5	① ② ③ ④	
6	① ② ③ ④	
7	① ② ③ ④	
8	① ② ③ ④	
9	① ② ③ ④	
10	① ② ③ ④	
11	① ② ③ ④	
12	① ② ③ ④	
13	① ② ③ ④	
14	① ② ③ ④	
15	① ② ③ ④	
16	① ② ③ ④	
17	① ② ③ ④	
18	① ② ③ ④	
19	① ② ③ ④	
20	① ② ③ ④	
21	① ② ③ ④	
22	① ② ③ ④	
23	① ② ③ ④	
24	① ② ③ ④	
25	① ② ③ ④	
26	① ② ③ ④	
27	① ② ③ ④	
28	① ② ③ ④	
29	① ② ③ ④	
30	① ② ③ ④	

PHYSICS

31	① ② ③ ④	
32	① ② ③ ④	
33	① ② ③ ④	
34	① ② ③ ④	
35	① ② ③ ④	
36	① ② ③ ④	
37	① ② ③ ④	
38	① ② ③ ④	
39	① ② ③ ④	
40	① ② ③ ④	
41	① ② ③ ④	
42	① ② ③ ④	
43	① ② ③ ④	
44	① ② ③ ④	
45	① ② ③ ④	
46	① ② ③ ④	
47	① ② ③ ④	
48	① ② ③ ④	
49	① ② ③ ④	
50	① ② ③ ④	
51	① ② ③ ④	
52	① ② ③ ④	
53	① ② ③ ④	
54	① ② ③ ④	
55	① ② ③ ④	
56	① ② ③ ④	
57	① ② ③ ④	
58	① ② ③ ④	
59	① ② ③ ④	
60	① ② ③ ④	

CHEMISTRY

61	① ② ③ ④	
62	① ② ③ ④	
63	① ② ③ ④	
64	① ② ③ ④	
65	① ② ③ ④	
66	① ② ③ ④	
67	① ② ③ ④	
68	① ② ③ ④	
69	① ② ③ ④	
70	① ② ③ ④	
71	① ② ③ ④	
72	① ② ③ ④	
73	① ② ③ ④	
74	① ② ③ ④	
75	① ② ③ ④	
76	① ② ③ ④	
77	① ② ③ ④	
78	① ② ③ ④	
79	① ② ③ ④	
80	① ② ③ ④	
81	① ② ③ ④	
82	① ② ③ ④	
83	① ② ③ ④	
84	① ② ③ ④	
85	① ② ③ ④	
86	① ② ③ ④	
87	① ② ③ ④	
88	① ② ③ ④	
89	① ② ③ ④	
90	① ② ③ ④	

REASONING

91	① ② ③ ④	
92	① ② ③ ④	
93	① ② ③ ④	
94	① ② ③ ④	
95	① ② ③ ④	
96	① ② ③ ④	
97	① ② ③ ④	
98	① ② ③ ④	
99	① ② ③ ④	
100	① ② ③ ④	

INSTRUCTIONS FOR MARKING OMR SHEET

1. Use only blue or black ball point pen
2. Circle should be darkened completely and properly
3. Cutting and erasing on the sheet are not allowed
4. Sheet should not be folded or crushed.
5. Don't use marker or white fluid to hide the marking.

CORRECT METHOD ○ ○ ● ○

WRONG METHODS ⊗ ○ ✓ ◐

Candidate Signature