

# I - QUEST'24



## SAMPLE QUESTION PAPER



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 21<sup>st</sup> 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 sum of three rational numbers is

 $\frac{17}{48}$ . If two of them are  $\frac{-7}{8}$  and  $\frac{5}{12}$ , then

the third rational number is

1)  $\frac{7}{16}$  2)  $\frac{5}{18}$  3)  $\frac{13}{16}$  4)  $\frac{11}{18}$ 

 The number line below shows 4 fractions, A, B, C and D.
 If AB = BC = CD, then the value of B

> and C respectively are 1)  $\frac{1}{6}$ ,  $\frac{1}{4}$  2)  $\frac{1}{4}$ ,  $\frac{1}{6}$ 3)  $\frac{1}{5}$ ,  $\frac{1}{6}$  4)  $\frac{1}{6}$ ,  $\frac{1}{5}$   $\frac{1}{10}$   $\frac{1}{10}$

3. Which of the following numbers becomes a perfect cube when we divide the number by 5?

1) 125 2) 25 3) 625 4) 3125

4. A student was asked to divide a number by 3.2. But instead of dividing it, he multiplied it by 3.2 and got the answer as 13.44. What was the correct answer?

1) 1.3125 2) 0.51

3) 0.61	4) None of thes
- /	,

- 5. What must be added to 24136 to make it a perfect square?
  - 1) 100 2) 200
  - 3) 111 4) None of these
- The sum of three consecutive odd integers is 29 more than twice the largest. Then the numbers are

1) 33, 35, 37	2) 29, 31, 33
3) 32, 34, 36	4) 31, 33, 35

7. If  $\sqrt{0.04 \times 0.4 \times a} = 0.004 \times 0.4 \times \sqrt{b}$ , then  $\frac{a}{b}$ 

- is equal to 1) $16 \times 10^{-3}$  2) $16 \times 10^{-4}$ 3) $16 \times 10^{-5}$  4) $16 \times 10^{-2}$
- 8. What is the value of *x* in the given equation?

$$\frac{(3x+1)}{16} + \frac{(2x-3)}{7} = \frac{(x+3)}{8} + \frac{(3x-1)}{14}$$
  
1) 2 2) 4 3) 3 4) 5

9. The bar graph shows the preference of people playing different games one year. Study the bar graph and answer the question.



How many people (in millions) have preferred to play Tennis in all the years altogether?

1) 2100	2) 1200
3) 3200	4) 1700

10. The least possible values of A for

which  $90 \times A$  is a perfect cube is

- 1) 200 2) 300 3) 500 4) 600
- 11. If  $4^{44} + 4^{44} + 4^{44} + 4^{44} = 4^x$ , then x =
  - 1) 44 2) 45

2) 45 3) 176

SPACE FOR ROUGH WORK

4) 11

12.	If $\alpha = \sqrt{162} + \sqrt{48}$ and $\beta = \sqrt{72} - \sqrt{108}$ , then the value of $5\alpha + 4\beta$ is 1) $15\sqrt{2} + 2\sqrt{3}$ 2) $3\sqrt{2} + 10\sqrt{3}$ 3) $69\sqrt{2} - 4\sqrt{3}$ 4) $69\sqrt{2} + 2\sqrt{3}$ Arrange the shaded fraction of the following figures in ascending order.	17.	<ul> <li>Which of the following is incorrect?</li> <li>1) A quadrilateral having exactly one pair of parallel sides is called a trapezium</li> <li>2) The measure of each exterior angle of a n-sided regular polygon is <ul> <li>(<sup>180°</sup>/<sub>n</sub>)</li> </ul> </li> <li>3) A quadrilateral is a rhombus, if its all sides are equal and diagonals bisect each other at right angles.</li> </ul>
14.	The probability of selecting a boy in a class is 0.6 and there are 45 students in a class. The number of girls in the class is	18.	4) None of these If $\frac{(m+2)(2m-3)-2m^2+6}{m-4} = 7$ , then <i>m</i> is 1) $\frac{14}{3}$ 2) 10 3) 15 4) $\frac{20}{3}$
15.	1) 36 2) 30 3) 20 4) 18 A die is thrown once. The probability that the number on the uppermost face is a) 5 b) not a multiple of 6 1) $a - \frac{5}{6}$ ; $b - \frac{5}{6}$ 2) $a - \frac{5}{6}$ ; $b - \frac{3}{2}$ 3) $a - \frac{1}{6}$ ; $b - \frac{5}{6}$ 4) $a - \frac{3}{4}$ ; $b - \frac{1}{4}$ The value of $\left(\sqrt{\frac{625}{4356}} + \sqrt{\frac{576}{1089}}\right) \times \left(\frac{66}{\sqrt{19600} + \sqrt{36}}\right)$ is 1) $\frac{7}{15}$ 2) $\frac{9}{53}$ 3) $\frac{1}{2}$ 4) $\frac{79}{33}$	19.	There are a few males and females in a meeting. If $\frac{3}{8}$ of the people in the meeting are males and there are 90 more females than males, then the number of females in the meeting is 1) 135 2) 200 3) 225 4) None of these In the given figure below, ABCD is a rhombus. Find <i>x</i> . 1) 39° 2) 40° 3) 49° 4) 29°
	SPACE FOR R	ROUGH	IWORK

I-Quest Std\_VIII Model Paper

2	21.	If $x = -\frac{4}{11}$ , then which of the following	28.	The probability of getting an even
		rational number lies between <i>x</i> and $ x $		number on spinning the wheel is $\frac{1}{2}$
		?		and that of a prime number is $\frac{4}{6}$ . What
		1) $\frac{7}{13}$ 2) $-\frac{11}{15}$ 3) $\frac{2}{11}$ 4) $\frac{5}{8}$		could be the missing number on the
2	22.	The difference between two numbers		wheel?
		is 20 % of the larger number. If the smaller number is 12, then the larger		
		one is		$\begin{array}{c} 2) 2 \\ 3) 4 \end{array} \qquad \left\langle 7 \bigwedge ? \right\rangle$
C	)3	1) 15 2) 16 3) 18 4) 4 The total ages of Javant Prem and		4) 9
2	40.	Saransh is 93 years. Ten years ago.	29.	If $\sqrt[3]{3(\sqrt[3]{x} - \frac{1}{\sqrt{x}})} = 2$ , then $\sqrt[3]{x} + \frac{1}{\sqrt{x}} =$
		the ratio of their ages was 2 : 3 : 4.		$\sqrt{\sqrt{\sqrt{3}x}}$
		The present age of Saransh is		1) $\frac{10}{3}$ 2) $-\frac{10}{3}$
		1) 28 years 2) 32 years		3) $\frac{3}{15}$ 4) both 1 & 2
		3) 34 years 4) 38 years	30.	If the three numbers are in the ratio
2	24.	The exterior angle of a regular polygon		2:3:5 and the sum of their squares
		is one-third of its interior angle. How		is 608, then the numbers respectively
		many sides does the polygon have ?		are
		1) 10 2) 8 3) 9 4) 13		1) 20, 12, 8 2) 12, 8, 20
2	25.	A field is in the form of an isosceles		3) 20, 8, 12 4) 8, 12, 20
		trapezium whose perimeter is 215 m.	31.	A box has a weight of 5000 N. The
		The same of its nonparallel side is 50 m.		area of the box in contact with the
		1) 115 m $(2)$ 60 m		ground is 1 m <sup>2</sup> . Another box has a
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		weight of 50 N and area of the box
				contact with the ground is $0.015 \text{ m}^2$ .
2	26.	If $\sqrt{2} + \sqrt{x} = 3$ , then $x = $		Which box exerts more pressure on
		1) 1 2) $\sqrt{7}$ 3) 7 4) 49		the ground?
2	27.	A number is multiplied by $2\frac{1}{3}$ times		1) 50 N box
		itself and then 61 is subtracted from		2) 5000 N box
		the product obtained, if the final		3) both exert same pressure
		result is 9200, then the number is         1) 36       2) 63       3) 67       4) 37		4) cannot be determined
			1	

## 2, then $\sqrt[3]{x} + \frac{1}{\sqrt[3]{x}} =$ 2) - $\frac{10}{3}$ 4) both 1 & 2 bers are in the ratio sum of their squares numbers respectively 2) 12, 8, 20 4) 8, 12, 20

### SICS

- ght of 5000 N. The n contact with the Another box has a nd area of the box ground is  $0.015 \text{ m}^2$ . s more pressure on

  - ne pressure
  - ermined

- 32. Arrange the following force of friction 36.
   in ascending order. Sliding friction(fk), static friction(fs), rolling friction(fr)
  - 1)  $f_r < f_k < f_s$  2)  $f_s < f_k < f_r$
  - 3)  $f_r < f_s < f_k$  4)  $f_k < f_r < f_s$
- 33. Which of the following methods can be used to increase the friction?a) shoes are grooved
  - b) treaded tyres
  - c) applying some coarse
  - d) ball bearings
  - 1) a, b only 2) b, c, d only
  - 3) a, b, c only 4) c, d only
- 34. A dam for water reservoir is built thicker at the bottom than at the top because
  - 1) Pressure of water is very large at the bottom due to its large depth
  - 2) Water is likely to have more density at the bottom due to its large depth
  - Quantity of water at the bottom is large
  - 4) None of these
- 35. Blake is pulling a heavy box placed on a rough surface as shown in the give figure. Blake is pulling the box by applying a force against
  - 1) load
  - 2) friction
  - 3) tension in rope
  - 4) gravity of earth



Oil

- 1) thermoscope
- 2) barometer
- 3) manometer
- 4) lactometer



- 1) backward direction on both the wheels
- backward direction on the front wheel, forward direction on the back wheel
- forward direction on both the wheels
- forward direction on the front wheel, backward direction on the back wheel
- 38. The mass of a brick is 2.5 kg. Its dimensions are 10 cm × 5 cm × 2 cm. What will be its pressure exerted by it on the ground if it resting on :

(Take 1 kg wt = 10 N)

- (i)  $10 \text{ cm} \times 5 \text{ cm}$  base
- (ii)  $5 \text{ cm} \times 2 \text{ cm}$  base
- 1) 5000 Pa, 25,000 Pa
- 2) 6000 Pa, 20,000 Pa
- 3) 4000 Pa, 15,000 Pa
- 4) 10000 Pa, 10,000 Pa



39. The given graph shows the displacement versus time relation for a disturbance travelling with velocity of 1500 ms<sup>-1</sup>. Calculate the wave length of the disturbance



- 1)  $3 \times 10^{-3}$  m 2)  $4 \times 10^{-3}$  m
- 3)  $1 \times 10^{-3}$  m 4)  $2 \times 10^{-3}$  m
- 40. If the amplitude of sound is increased
  - by 2 times, then loudness \_\_\_\_
  - 1) increases by 2 times
  - 2) decreases by 2 times
  - 3) increases by 4 times
  - 4) decreases by 4 times
- 41. If the frequency of a tuning fork is230 hertz, then how many times doesit vibrate in 5 seconds?
  - 1) 230 2) 460 3) 690 4) 1150
- 42. What is the value of sliding friction for an object which requires 7 N of force to move it from rest ?
  - 1) 7 N
     2) Greater than 7 N

     3) Less than 7 N
     4) 14 N
- 43. A force of 200 N is required to push a car of mass 500 kg, slowly at constant speed on a levelled road. If a force of 500 N is applied, the acceleration of car will be:
  - 1) 0 ms<sup>-2</sup> 2) 0.2 ms<sup>-2</sup>
  - 3) 0.6 ms<sup>-2</sup> 4)1.0 ms<sup>-2</sup>

- 44. Ram heard sound of thunderbolt
  3 seconds later after he saw a flash of lightning. How far is he from the place where lightning occurs ?
  (speed of sound = 330 m/s)
  1) 0.33 km
  2) 0.66 km
  3) 0.99 km
  4) 1.2 km
- 45. **Statement A :** Pitch of a wave is determined by its frequency.

**Statement - B :** High frequency wave has low pitch

- 1) Both A and B are true
- 2) Both A and B are false
- 3) A is true but R is false
- 4) A is not true but R is true
- 46. The ratio of mass of the truck to the mass of the car is 10:3. If the same force is applied on both the car and the truck, then the ratio of the acceleration produced in truck to the acceleration produced in car is
  - 1)  $\frac{10}{3}$  2)  $\frac{1}{3}$  3)  $\frac{3}{2}$  4)  $\frac{3}{10}$
- 47. Which of the following objects exert the most pressure on the floor ?(All objects have the same mass)



- - 4) cannot say

- 49. A fruit falling from a tree due to gravity is a force that \_\_\_\_\_\_a) exists only on the Earthb) is always attractivec) exists everywhere in the universe
  - d) is both attractive and repulsive

2) only c

4) both a, d

- 1) only a
- 3) both b, c
- 50. In a cycling race, it is observed that a cyclist normally bends his body forward as shown in the figure.



The cyclist bends in order to \_\_\_\_\_

- 1) feel comfortable
- 2) reduce his weight
- 3) increase energy
- 4) reduce the air drag
- 51. The Siren of an ambulance needs to be a loud and piercing sound. Therefore, its main characteristics should be
  - 1) high pitch and large amplitude
  - 2) low pitch and large amplitude
  - 3) high pitch and small amplitude
  - 4) low pitch and small amplitude
- 52. **Statement A :** Friction is
  - independent of area of contact

Statement – B : Friction is

independent of nature of surfaces.

- 1) Both A and B are true
- 2) Both A and B are false
- 3) A is true but R is false
- 4) A is false but R is true

#### 53. Match the following

Column – I	Column – II
A. Audible sounds	P. >20 kHz
B. Infrasonic Waves	Q. 20 Hz to 20 kHz
C. Ultrasonic Waves	R. $\simeq 5000 \text{ ms}^{-1}$
D. Speed of sound in	S. < 20 Hz
steel	

	Α	В	С	D
1)	Р	Q	R	S
2)	Q	S	Р	R
3)	R	S	Р	Q
4)	S	Р	Q	R

- 54. What force must the brakes and tyres apply to a 2800 kg truck moving with a speed of 30 ms<sup>-1</sup> to bring it to rest in 8.0 seconds ?
  - 1) 12000 N 2) 13000 N
  - 3) 11000 N 4) 10500 N
- 55. If pressure at half the depth of a lake is equal to  $\frac{2}{3}$ rd pressure at the bottom of the lake, then the depth of the lake is \_\_\_\_\_

(take atmospheric pressure is  $10^5$  Pa, density of water as  $1000 \frac{kg}{m^3}$ .

and  $g = 10 \text{ ms}^{-2}$ ).

1) 10 m	2) 20 m
3) 60 m	4) 30 m

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- 1) He is applying force on the stool.
- 2) He represents only magnitude but no direction.
- 3) He is not applying any force on the stool.
- 4) The gravitational pull of earth on the stool is greater.

'P' and 'Q' and will never stop.

Harish rolled a small steel ball at one

edge of the glass bowl as shown

below. If there is no friction between

the surfaces of the ball and the bowl.

what will happen to the ball? (air drag

- 4) It will not move at all since friction is required for movement.
- 57. Among the following, which one is
- true of the man in the picture shown
- 2) It will stop at centre point 'R' after a number of to-and-fro motions. 3) It will keep moving between point
- is neglected) 59.
- 58. The mass of a body is 2 kg, and it is moving on a horizontal surface with a velocity of 4 ms<sup>-1</sup>, it comes to rest after 2 seconds. What will be the force to be applied to it if one wants the body to move with the same initial velocity?
  - 3) 4 N 1) 0 N 2) 2 N 4) 8 N
  - When you get down from a running bus, you seem to fall forward.
    - 1) Due to inertia of rest, the road remains static, and the bus continues to move.
    - 2) Due to inertia of motion, your feet come to a rest, but your upper body part continues to stay in motion.
    - 3) Became it is just your habit.
    - 4) All of the above.
  - A gun of mass 3 kg fires 3 bullets per 60. second. The mass of each bullet is 30 g and the velocity of the bullet when it leaves the gun is 200 ms<sup>-1</sup>. The force required to hold the gun while firing is
    - 1) 6 N 2) 8 N 3) 18 N 4) 240 N

#### **CHEMISTRY**

- 61. Which among the following is used in the manufacturing of perfumes? 2) Coal gas 1) Coal tar 3) Coke 4) Kerosene 62. Coke is used in the manufacturing of 1) Lead 2) Iron 4) Copper 3) steel Highly inflammable substances: 63.
  - 1) Have high ignition temperature
    - 2) Have low ignition temperature
    - 3) Cannot catch fire easily
    - 4) Both (1) and (3)

#### SPACE FOR ROUGH WORK

below?

56.





64. Different zones of candle flame are marked by the letters P, Q, R & S



Which of the following statements are correct?

- i) P is the luminous zone and it is hottest part of the 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 zone S carbon monoxide burns with blue flame
- 1) i & ii only 2) ii & iii only
- 3) ii, iii & iv only 4) i & iv only
- 65. Which of the following are the products obtained from coal?
  - a) Coal tar b) Petrol
  - c) Coal gas d) Ammonical liquor
  - e) Paraffin wax f) Coke
  - 1) a, c, d, f 2) a, b, d, f
  - 3) a, c, d, e 4) a, b, c, d
- 66. Which of the following is not a free state of carbon?
  - 1) Petrol 2) Coke
  - 3) Diamond 4) Graphite

- 67. The ignition temperatures of four substances P, Q, R and S are  $175^{\circ}$ C, 250°C, 195°C and 310°C respectively. Which of the following substances catches fire below 250°C ? 1) Q and S 2) P and R 3) R and S 4) P and Q 68. The calorific value of a fuel is 3300000 joule/kg. 96.4 grams of fuel is taken for combustion. The total amount of energy released during the complete combustion is \_\_\_\_\_ kJ/kg 1) 318.12 2) 312180 3) 31218 4) 215.18 69. Black gold is actually 1) Gold which became black on burning 2) Petroleum 3) Gold sold in black market 4) Diamond Which of the following fuels is used 70. for running automobiles? 2) Petrol 1) CNG 3) Both 1and 2 4) Wood In the sun, light and heat are 71. produced by 1) Chemical reactions 2) Nuclear reactions 3) Burning reactions
  - 4) Bunsen burner
- 72. Long, long ago, which of the following trees was used to produce match sticks?
  - 1) Mango 2) Deodar
  - 3) Banyan 4) Pine

76.	what is Geothermal	energy ?
	1) Ocean thermal er	nergy
	2) Outer surface hea	at of the e
	3) Energy obtained	from the l
	dry rocks in the e	arth
	4) Wind energy	
77.	Petroleum is main	ly a mixtu
	which one of the fo	ollowing c
	1) Carbohydrates	2) Carbo
	3) Hydrocarbons	4) Alcoh
		S
I-Ques	t Std_VIII Model Paper	r

## 73. Natural gas is called clean fuel because:

- 1) It burns without producing any smoke
- 2) It burns incompletely
- 3) It does not leave behind any residue
- 4) Both 1 & 3

#### 74. Match the following Column-I

#### Column-II

(a) LPG

of candle

(d) Fire crackers

(b) Outer zone

- (i) Non-luminous flame (ii) Inflammable
- substance
- (c) Alcohol, nylon fibres (iii) Rapid combustion

(iv) Explosive combustion

- 1) (a) (iii), (b) (i), (c) (ii), (d) (iv)
- 2) (a) (i), (b) (iii), (c) (ii), (d) (iv)
- 3) (a) (iv), (b) (i), (c) (ii), (d) (iii)
- 4) (a) (iv), (b) (ii), (c) (i), (d) (iii)
- 75. Complete combustion of CH<sub>4</sub> gives:
  - 1)  $CO_2 + H_2O$ 2) CO+H<sub>2</sub>
  - 4) O<sub>2</sub> 3) CO
- - arth
  - heat of hot
- are of lass?
  - ogens
  - ols

The given figure represents a 78. fractionating column used in refineries.



Which of the following statements are correct?

- I. Substance *U* has the highest boiling point among all the fractions while substance Z has the lowest boiling point.
- II. Substance *U* is used as a domestic fuel while substance Z is used for lubrication.
- III. U, V, W and X all are used as fuels.
- IV. V is used in power stations while X is used as a fuel for lamps and stoves.
- 1) I and IV only 2) II and III only
- 3) I, III and IV only 4) I, II, III and I
- 79. Products obtained by the process of destructive distillation are 1) Coke, Coal-tar, Coal Gas 2) Petrol, Diesel, Kerosene 3) Paraffin Wax, Bitumen 4) Compressed natural Gas
- 80. The mining of oil under sea is termed as
  - 1) Distillation
  - 2) Carbonisation
  - 3) Shore mining
  - 4) Destructive distillation

Fire extinguishers containing CO<sub>2</sub> are 85. A brief information about a few the best extinguishers for fires substances is given as : involving electrical equipment X: It is the residue left behind after destructive distillation of coal. 1) Because  $CO_2$  being heavier than Y: It is a mixture of hydrogen, oxygen covers the fire like a methane, carbon monoxide and Blanket other gases. 2) Because  $CO_2$  being heavier than Z: It contains several carbon oxygen increases fire compounds which are used to 3) Because  $CO_2$  being lighter than make pesticides, explosives, oxygen covers the fire like a synthetic fibres, perfumes, etc. blanket X, Y and Z are respectively 4) Because  $CO_2$  and oxygen increases 1) Kerosene, CNG & Ammoniacal liquor fire 2) Bitumen, Coal Gas and Coal Tar How much percentage of carbon is 3) Coke, Coal Gas and Coal Tar present in bituminous? 4) Petrol, CNG and Bitumen 1) 20 - 25% 2) 25 - 35% 86. Which of the following is not true about 4) 98% 3) 75 - 85% fossil fuels ? Why are the spirit and kerosene 1) the known reserves of fossil fuels lamps made in such a way that the will last for ever free end of the wicks with the flame 2) it takes millions of years to form remains totally cut off from the fuel? fossil fuels The fuel vapourises at room i) 3) burning of fossil fuels causes air temperature pollution ii) The fuel is highly inflammable 4) burning of fossil fuels causes global iii) The calorific value of fuel can be warming increased 87. The ignition temperature of sodium is 1) Only i & ii 2) Only ii & iii very \_\_\_\_i\_\_\_. To prevent its \_\_\_\_ii\_\_\_ 3) Only i & iii 4) i, ii & iii combustion, it is stored under iii ... 84. Napthalene balls are obtained from The information in which alternative Coal-tar and are used as completes the given statements? 1) Mosquito repellent 1) i-low, ii - rapid, iii - Kerosene 2) Honey bee repellent 2) i-low, ii - spontaneous, iii-Kerosene 3) Moth repellent 3) i-high, ii - rapid, iii - water 4) Lizard repellent 4) i-high, ii - spontaneous, iii - water

#### SPACE FOR ROUGH WORK

81.

82.

83.

88. If a person's clothes catch fire, the

best way to extinguish the fire is to

- 1) Throw water on the clothes
- 2) cover the person with a polythene sheet
- 3) cover the person with a woolen blanket
- 4) use fire extinguisher

#### 89. Match the following

Column – I	Column - II
a) Anthracite	i) Acrylic
aj mininacite	manufacturing
b) Oil Refinery	ii) Renewable
b) on Rennery	resource
c) Solar Energy	iii) Mumbai
d) Petrochemicals	iv) 98% Carbon
uj i cu ocnennicais	content

- 1) a ii, b iii, c iv, d i 2) a - i, b - iii, c - ii, d - iv 3) a - ii, b - iii, c - i, d - iv
- 4) a iv, b iii, c ii, d i
- 90. Which fuel has the lowest ignition temperature from the following table ?Gross Calorific Values of Fuel

#### Gross Calorific Values of Fuel

Fuel Oil	GCV (kcal/kg)
Kerosene	11,100
Diesel Oil	10,800
LDO	10,700
Furnace Oil	10,500
LSHS	10,600

- 1) Furnace oil
- 2) LSHS
- 3) Kerosene oil
- 4) Diesel oil

#### REASONING

- 91. Complete the series :
  - 23, 35, 57, 711, 1113, ?
  - 1) 13152) 17133) 13174) 2223
- 92. Fill the blank spaces in the series:
  - a b \_\_\_\_ a \_\_ d c a c b \_\_ a c d \_\_ 1) d c b d b 2) c d b b d
    - 3) d a b d b
    - 4) c d b d b
- 93. Choose the odd one out:



- 94. Choose the odd one out:
  - 1) Lion : Roar 2) Snake : Hiss
  - 3) Frog : Bleat 4) Bees : Hum
- 95. Mohit starts from A and walks 2 km East up to B and turns southwards and walks 1 km up to C. At C he turns to East and walks 2 km up to D. He turns northwards and walks 4 km to E. How far is he from his starting point?
  - 1) 3 km 2) 4 km
  - 3) 5 km 4) 6 km
- 96. If HOTEL = 55, then BORE = ?
  - 1) 40 2) 36 3) 55 4) 60

97. Which of the following Venn Diagram correctly represents Ocean, Indian Ocean, Pacific Ocean and Mariana



- 98. If in a certain code, STUDENT is written as RSTEDMS, then how would TEACHER be written in the same code?
  - 1) SZZDGEQ 2) SZDDGEQ
  - 3) SDZDGDQ 4) SDZCGDQ
- 99. Chef is related to Restaurant in the same way as Druggist is related to ...?
  - 1) Medicine2) Pharmacy
  - 3) Store 4) Chemist
- 100. Select a suitable figure from the Answer figures that would replace the question mark (?)

Problem figures: Answer figures:





MATHEMATICS		PHYSICS		CHEMISTRY			REASONING			
1		31	(1) (2) (3) (4)		61	(1) (2) (3) (4)		91	(1) (2) (3) (4)	
2		32	(1) (2) (3) (4)		62	(1) (2) (3) (4)		92		
3		33	(1) (2) (3) (4)		63	(1) (2) (3) (4)		93		
4	1234	34	1234		64	1234		94	1234	
5	1234	35	1234		65	1234		95	1234	
6	1234	36	1234		66	1234		96	1234	
7	1234	37	1234		67	1234		97	1234	
8	1234	38	1234		68	1234		98	1234	
9	1234	39	1234		69	1234		99	1234	
10	1234	40	1234		70	1234		100	1234	
11	1234	41	1234		71	1234			I RUCTIONS FOR MARKING	
12	1234	42	1234		72	1234		1. Use	OMR SHEET	all
13	1234	43	1234		73	1234		poi	nt pen	un
14	1234	44	1234		74	1234		dar	cie shouid be kened completely an	d
15	1234	45	1234		75	1234		pro	perly tting and erasing on	
16	1234	46	1234		76	1234		the	sheet are not allowe	d
17	1234	47	1234		77	1234		4. Sh	eet should not be led or crushed.	
18	1234	48	1234		78	1234		5. Do	n't use marker or wh d to hide the marking	ite 1.
19	1234	49	1234		79	1234		CORR		,.
20	1234	50	1234		80	1234		WROM		
21	1234	51	1234		81	1234				
22	1234	52	1234		82	1234			Candidate Signature	
23	1234	53	1234		83	1234				
24		54	1234		84	1234				
25		55	1234		85	1234				
26		56			86					
27		57			87					
28		58			88					
29		59			89					
30	(1) (2) (3) (4)	60	(1) (2) (3) (4)		90	(1) (2) (3) (4)				