

# VISTO-2015 - 16

(VELAMMAL INTER SCHOOL SCIENCE TALENT OLYMPIAD)

**SEASON – II**

**CLASS - VII**

**Duration: 2hrs.**

**Max. Marks: 100**

## INSTRUCTIONS TO THE CANDIDATE

- Write your **NAME** and **CLASS** in the space provided on **OMR** Response sheet.
  - You have to mark the answers on the **OMR** Response sheet only.
  - You have to handle the **OMR** Response sheet with utmost care.
  - Do not fold/mutilate or make any unnecessary markings on the **OMR** Response sheet.
  - Use **BLUE** or **BLACK BALL POINT PEN** only to darken the appropriate circles in **OMR** Response sheet.
- Answers marked with **PENCIL** will not be considered for evaluation.
- This Question Paper consists of **100 QUESTIONS**, under four subject heads, **MATHEMATICS (40 Questions)**, **PHYSICS (20 Questions)**, **CHEMISTRY (20 Questions)** and **BIOLOGY (20 Questions)**.
- Each question has four alternative responses marked a, b, c, d. You have to darken the appropriate circle provided in the OMR Response sheet against each question.
- 1 MARK** will be awarded for every correct response for all the questions in **ALL THE FOUR SUBJECTS**.
- NO** mark will be deducted for incorrect response.
- Usage of Calculators, Log tables and Electronic gadgets is strictly prohibited in the examination hall.
- Return the OMR Response sheet to the Invigilator at the end of Examination, before leaving the examination hall.

**\*\*\* All the best \*\*\***

**MATHEMATICS**

1. **Statement P:** The mode is always one of the numbers in a given data

**Statement Q:** The mean is one of the numbers in a given data

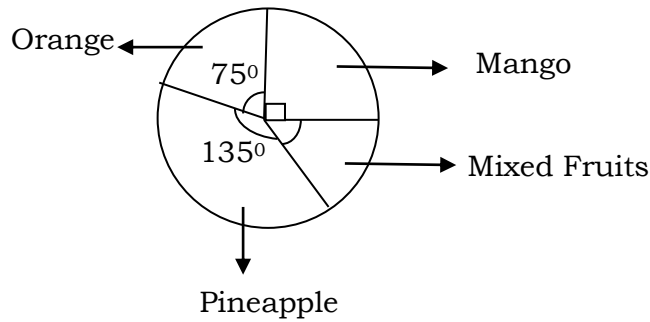
- a) Both *P* and *Q* are true
- b) *P* is true and *Q* is false
- c) Both *P* and *Q* are false
- d) *P* is false and *Q* is true

2. A fair die is tossed 80 times and it is noted that the number 3 is obtained 14 times. Now the same die is tossed at random, then the probability of getting the number 3 is .....

- a)  $\frac{7}{40}$
- b)  $\frac{3}{14}$
- c)  $\frac{1}{6}$
- d)  $\frac{3}{40}$

**Read the following paragraph and answer the questions from 3 to 4:**

The pie- chart depicts the results of a survey conducted to identify the favorite juice of some students



3. The number of students who like mixed fruits juice, if the total number of students is 360, is.....

- a) 70
- b) 80
- c) 65
- d) 60

4. The number of students who like orange juice, if the total number of students is 720, is .....

- a) 150
- b) 360
- c) 180
- d) 240

5. A comet passed by the Earth in the year 1835. It passes by the Earth once in every 60 years. In which of the following years can the comet be expected to pass by the Earth?

- a) 2035
- b) 2065
- c) 2075
- d) 2085

6. **Statement P:** The quotient of two integers is always a rational number.

**Statement Q:**  $\pi$  is a rational number.

Which of the following statements is true?

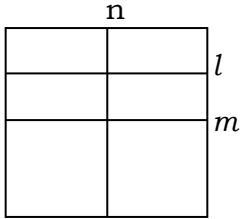
- a) Both *P* and *Q* are true
- b) *P* is true and *Q* is false
- c) Both *P* and *Q* are false
- d) *P* is false and *Q* is true



15. If the angles of a quadrilateral are  $(p+25)^\circ$ ,  $2p^\circ$ ,  $(2p-15)^\circ$  and  $(p+20)^\circ$ , then the value of the smallest angle among them, is .....
- a)  $105^\circ$                       b)  $65^\circ$                       c)  $115^\circ$                       d)  $75^\circ$
16. Guru and Chiru borrowed Rs. 2250 and Rs. 2500 respectively at the same rate of simple interest for 3 years. If the interest paid by Chiru is Rs. 45 more than that paid by Guru, then the rate of interest per annum, is .....
- a) 3%p.a                      b) 4% p.a.                      c) 5% p. a.                      d) 6% p. a.
17. By selling an article for Rs. 600 a man losses 20%. At what price should he sell it in order to gain 25%?
- a) Rs. 800                      b) Rs 750                      c) Rs. 937.50                      d) Rs. 1000
18. If S.I. incurred is Rs 31.50, for a time period of  $1\frac{1}{4}$  years and rate of interest per annum is  $5\frac{1}{4}\%$ , then the principal is .....
- a) Rs. 460                      b) Rs. 430                      c) Rs. 480                      d) Rs. 450
19. Niharika earns Rs 1200 per week working at a part- time job. After taxes, her pay cheque is only 78% of what she earned. What is the amount payable to Niharika?
- a) Rs. 897.00                      b) Rs. 962.00 c) Rs. 936.00                      d) 900.00
20. A man sold 10 eggs for 5 rupees and gained 20%. How many eggs did he buy for 5 rupees ?
- a) 12                      b) 14                      c) 25                      d) 16
21. Identify the criterion of construction of the equilateral triangle LMN given LM= 6cm :
- a) S. A. S criterion                      b) R. H. S. criterion  
c) A. S. A criterion                      d) S. S. S. criterion

**Read the following paragraph and answer the questions from 22 to 24:**

Mr.David folds a sheet of paper. The dotted lines as shown in the figure are the creases formed, which are named as  $l$ ,  $m$  and  $n$

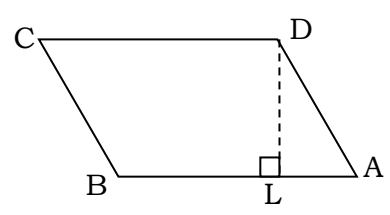


22. Which of the following is true?
- a)  $l // m$                       b)  $l // n$   
c)  $n // m$                       d)  $l, m, n$  are parallel to one another
23. What can you say about lines  $l$  and  $n$ ?
- a)  $l // n$                       b)  $l \perp n$   
c)  $l$  is the same line as  $n$                       d) Neither (a) nor (b)

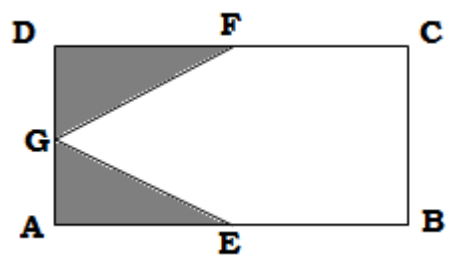
24. What do you call the line  $n$  with respect to the lines  $l$  and  $m$ ?
- a)  $n$  is a line parallel to  $l$  and  $m$ .                      b)  $n$  is a line parallel to  $l$  only  
c)  $n$  is a transversal.    d)  $n$  is a line parallel to  $m$  only
25. In  $\triangle DEF$ ,  $EF = 8.4$  cm,  $\angle E = 103^\circ$  and  $\angle F = 85^\circ$ . Which of the following statements is correct?
- a)  $\triangle DEF$  can be constructed.                      b)  $\triangle DEF$  is an obtuse angled triangle.  
c)  $\triangle DEF$  cannot be constructed                      d)  $\triangle DEF$  is an acute angled triangle
26. Which of the following are the measures of a triangle that can be constructed using the S.S.S criterion?
- a)  $\overline{XY} = 6$  cm,  $\angle X = 40^\circ$ ,  $\angle Y = 70^\circ$                       b)  $\overline{DE} = 8$  cm,  $\overline{EF} = 7$  cm,  $\overline{FD} = 9$  cm  
c)  $\overline{PQ} = 4$  cm,  $\overline{QR} = 6$  cm,  $\angle Q = 80^\circ$                       d)  $\overline{AB} = 5$  cm,  $BC = 4$  cm,  $\angle C = 90^\circ$

27. In a trapezium the parallel sides measure 24 cm and 15 cm and the distance between them is 10 cm. The area of trapezium is .....
- a)  $215 \text{ cm}^2$                       b)  $205 \text{ cm}^2$                       c)  $195 \text{ cm}^2$                       d)  $295 \text{ cm}^2$

28. In the given figure, ABCD is a parallelogram.  $DL \perp AB$  and  $AB = 13$  cm =  $AD$ . If the area of parallelogram is  $156 \text{ cm}^2$ , then  $AL$  is .....
- a) 5cm                      b) 6cm  
c) 7cm                      d) 8cm



29. If ABCD is a rectangle having length 30cm and breadth 20 cm, E, F and G are midpoints of AB, CD and AD respectively, then the area of the unshaded part, is .....
- a)  $400 \text{ cm}^2$                       b)  $450 \text{ cm}^2$   
c)  $375 \text{ cm}^2$                       d)  $500 \text{ cm}^2$

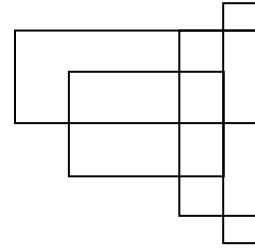


30. In a parallelogram ABCD, the diagonal AC measures 34m and the perpendicular distance of AC from either of the vertices B and D is 12m. The area of the parallelogram is .....
- a) 204 sq. m                      b) 408 sq. m                      c) 816 sq. m                      d) 806 sq. m
31. If the length of the diagonal of a square is  $12\sqrt{2}$  cm, then its perimeter is .....
- a) 38cm                      b) 44 cm                      c) 48 cm                      d) 54 cm
32. If  $3x - \frac{1}{2x} = 6$ , then the value of  $81x^4 + \frac{1}{16x^4}$  is .....
- a)  $\frac{3603}{2}$                       b)  $\frac{3303}{2}$                       c)  $\frac{3033}{2}$                       d)  $\frac{3903}{2}$

33. The degree of the zero polynomial is .....
- a) 0                                      b) 1                                      c) 2                                      d) not defined

34. How many four sided figures are there in the given diagram?

- a) More than 10 but less than 15                                      b) Less than 10  
 c) More than 16 but less than 20                                      d) More than 20



35. Match the following

	Column - I		Column - II
i)	$4m^2 p, 4mp^2, 4m^2 p^2$	A)	Binomial
ii)	$5-3t^3$	B)	Unlike terms
iii)	$-7x, \frac{5}{2}x$	C)	Trinomial
iv)	$1+x+x^2$	D)	Like terms

- |    |          |           |            |           |    |          |           |            |           |
|----|----------|-----------|------------|-----------|----|----------|-----------|------------|-----------|
|    | <b>i</b> | <b>ii</b> | <b>iii</b> | <b>iv</b> |    | <b>i</b> | <b>ii</b> | <b>iii</b> | <b>iv</b> |
| a) | A        | B         | C          | D         | b) | B        | A         | D          | C         |
| c) | D        | C         | B          | A         | d) | B        | C         | A          | D         |

36. Let  $P(n) = 7n + 18 + k$  and if  $P(3) = 41$ , then the ratio of  $P(10)$  and  $P(20)$  is .....

a) 9 : 16                                      b) 7 : 15                                      c) 9 : 17                                      d) 7 : 16

37. The sides of a right angled triangle are  $2a$  cm,  $(2a+2)$  cm and  $(4a-2)$  cm long. What is the length of the shortest side of the triangle if its perimeter is 24 cm?

- a) 8cm                                      b) 6cm                                      c) 10cm                                      d) 3cm

38. Match the shapes given in column- I to their corresponding nets in column-II

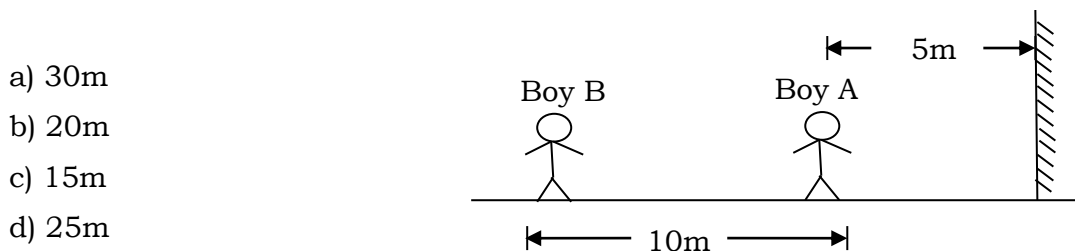
	Column-I(shape)		Column-II ( Net)
i)		A)	
ii)		B)	
iii)		C)	
iv)		D)	

- |    |          |           |            |           |    |          |           |            |           |
|----|----------|-----------|------------|-----------|----|----------|-----------|------------|-----------|
|    | <b>i</b> | <b>ii</b> | <b>iii</b> | <b>iv</b> |    | <b>i</b> | <b>ii</b> | <b>iii</b> | <b>iv</b> |
| a) | A        | B         | C          | D         | b) | D        | A         | B          | C         |
| c) | C        | B         | A          | D         | d) | D        | A         | C          | B         |

39. A die is cut into 2 pieces diagonally. The cross section so obtained, is .....
- a) a triangle                      b) a rectangle                      c) a square                      d) a cube
40. If two cubes of dimensions 3 cm by 3 cm by 3 cm are placed side by side. The surface area of the resulting cuboid is .....
- a)  $108\text{cm}^2$                       b)  $216\text{cm}^2$                       c)  $45\text{cm}^2$                       d)  $90\text{cm}^2$

### PHYSICS

41. David is observing his image in a plane mirror. The distance between the mirror and David is 4m. If he moves 1m towards the mirror, then the distance between David and his image will be
- a) 3m                                      b) 5m                                      c) 6m                                      d) 8m
42. While sitting in a car, Charan observes that there is no change in the reading of odometer of the car for a certain period of time. The conclusion from Charan's observation that the car is
- a) At rest                                      b) Gaining speed                      c) Reducing speed                      d) Moving uniformly
43. A train runs past an electric pole in half minute, and through a tunnel 500m long in  $1\frac{1}{2}$  minute. The length of the train is
- a) 250m                                      b) 225m                                      c) 300m                                      d) 150m
44. Two boys are standing in front of a plane mirror as shown. When the boy 'B' looks into the mirror how far from him, will image of boy 'A' seem to be?



- a) 30m  
b) 20m  
c) 15m  
d) 25m
45. The odometer of car reads 23,321km, when the clock shows the time 8.30am. The odometer reads 23,336km when the clock shows the 8.50am. As the car is moving uniformly, its speed will be
- a) 40kmph                                      b) 22.5kmph                                      c) 15kmph                                      d) 45kmph
46. A ball is cut into two halves. On the inner surface of one half of the ball, a shiny aluminium foil is pasted. Now it can be used as
- a) Rear – view mirror                      b) Reflectors of torches                      c) Both a and b                      d) None of the above
47. The water tank of your house is of rectangular shape has dimensions 4m × 3m × 5m (l**h**). The mass of water that can be stored in it will be
- a) 60kg                                      b) 60,000kg                                      c) 6000kg                                      d) 600kg
48. Which among the following is not a heating appliance?
- a) Electric Geyser                      b) Electric iron                      c) Solar water heater                      d) Electric bell
49. Sravani is constructing an electric bell. She uses a wooden piece in place of an iron piece to wound a coil of wire around it. The conclusion from her observation is
- a) The bell will ring once                      b) No current flows in the circuit  
c) The bell will ring continuously                      d) The bell doesn't ring

50. Hari is jogging uniformly along a square path of side 100m. He makes 3 rounds along this square path in 4 minutes, his speed is
- a) 1m/s                      b) 5m/s                      c) 50m/s                      d)  $\frac{40}{3}$  m/s
51. Laasya makes a simple circuit with '6' cells in series and one bulb with connecting wires. The bulb lights for an instant and then goes out. Which of following is the correct reason?
- a) Current could not flow through the circuit  
 b) Too much current through the bulb, makes it fused  
 c) The wires melted in the heat                      d) Nothing can be predicted
52. **Statement - I:-** Light is a form of energy, which is not visible, but can make things visible.  
**Statement - II:** For Astronauts, the space appears as blue.
- a) Both Statements - I and II are correct                      b) Both Statements - I and II are incorrect  
 c) The Statement - I is correct and Statement - II is incorrect  
 d) The Statement - I is incorrect and Statement - II is correct
53. If a 2 liter cool drink bottle weighs 1000gram, then density of cool drink is
- a) 200kg/m<sup>3</sup>                      b) 500kg/m<sup>3</sup>                      c) 20kg/m<sup>3</sup>                      d) 50kg/m<sup>3</sup>
54. A car traversed half of the distance with a speed  $V_0$ . The remaining part of distance was covered with speed  $V_1$  for half of the time and with  $V_2$  for other half of the time. The average speed of the car will be
- a)  $\frac{V_0 + V_1 + V_2}{3}$                       b)  $\frac{2V_1V_2}{V_1 + V_2}$                       c)  $\frac{2V_0(V_1 + V_2)}{V_1 + V_2 + 2V_0}$                       d)  $\frac{1}{V_0} + \frac{1}{V_1} + \frac{1}{V_2}$
55. **Statement - I:** 1 amu (Atomic mass unit) is  $\frac{1}{12}$ th mass of one neutral carbon atom
- Statement - II:** 1 Fermi (1f) is the least measurement of length
- a) Both Statements - I and II are correct  
 b) Both Statements - I and II are incorrect  
 c) Statement - I is correct and Statement - II is incorrect  
 d) Statement - I is incorrect and Statement - II is correct
56. What is the nature of position versus time graph that represents a stationary body?
- a) A straight line passing through the origin of the position - time graph  
 b) A straight line parallel to position axis  
 c) A straight line parallel to time axis  
 d) A straight line having negative slope
57. **Statement - I:** A plane mirror always forms virtual image.  
**Statement - II:** A concave mirror always forms real image
- a) Both the Statements are correct                      b) Both the Statements are incorrect  
 c) Statement - I is correct and Statement - II is incorrect  
 d) Statement - I is incorrect and Statement - II is correct



58. If you look into a shiny spoon, you can see an inverted image as well as upright image. Choose the correct statement.
- If you use the concave side, you normally see an inverted image
  - If you use the convex side, you always see an upright image.
  - You can see upright image on both sides
  - All the above all are correct
59. **Assertion:** Electric current will not flow between two charged bodies, when connected if their charges are same in magnitude; but opposite sign.
- Reason:** Current is the rate of flow of charge.
- Assertion and Reason are true and the Reason is correct explanation of the Assertion.
  - Assertion and Reason are true and the Reason is not correct explanation of the Assertion.
  - Assertion is false, but the Reason is true
  - Assertion is true, but the Reason is false
60. Match the following:

**Column - I**

- Plane mirror
- Convex lens
- Prism
- Concave mirror

- A - s, B - r, C - p, D - q
- A - p, B - q, C - r, D - s

**Column - II**

- Used as magnifying glass
- Used by dentist and ENT specialist
- Can form laterally inverted, virtual image of same size
- Used to get dispersed light

- A - r, B - p, C - s, D - q
- A - q, B - p, C - s, D - r

**CHEMISTRY**

61. The reaction in which both oxidation and reduction occur simultaneously is called
- Oxidation
  - Reduction
  - Redox
  - Disproportionation
62. What chemicals are used in soda acid fire extinguisher?
- $\text{CaCO}_3 + \text{HCl}$
  - $\text{NaHCO}_3 + \text{HCl}$
  - $\text{CaCO}_3 + \text{H}_2\text{SO}_4$
  - $\text{NaHCO}_3 + \text{H}_2\text{SO}_4$
63. Mg burns in the presence of oxygen to form
- $\text{MgCl}_2$
  - $\text{MgO}$
  - $\text{MgSO}_4$
  - $\text{MgO}_2$
64. Ratio of component elements of water by mass is
- 2 : 1
  - 1 : 1
  - 1 : 8
  - 2 : 10
65. Which of the following is pure water?
- River water
  - Sea water
  - Lake water
  - Rain water
66. Pick out the odd one from the following
- Melting of water
  - Burning coal in air
  - Freezing of water
  - Sublimation
67. At what temperature water has highest density ?
- $0^\circ\text{C}$
  - $100^\circ\text{C}$
  - $-4^\circ\text{C}$
  - $4^\circ\text{C}$
68. Good fuel should have
- High calorific value
  - Less abundance in nature
  - Low calorific value
  - Both a & b

69. Melting of wax involves
- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| a) Physical & chemical changes       | b) Periodic & non – periodic changes |
| c) Reversible & irreversible changes | d) Un desirable changes              |
70. Which of the following chemicals of Ca & Mg are responsible for hardness of water?
- |             |              |              |               |
|-------------|--------------|--------------|---------------|
| a) Nitrates | b) Chlorides | c) Sulphates | d) Both b & c |
|-------------|--------------|--------------|---------------|
71. Which of the following can sublime?
- |                               |                           |                           |                                 |
|-------------------------------|---------------------------|---------------------------|---------------------------------|
| a) $(\text{NH}_2)_2\text{CO}$ | b) $\text{NH}_4\text{Cl}$ | c) $\text{NH}_4\text{OH}$ | d) $(\text{NH}_4)_2\text{CO}_3$ |
|-------------------------------|---------------------------|---------------------------|---------------------------------|
72. Which of the following is universal solvent ?
- |            |          |                   |           |
|------------|----------|-------------------|-----------|
| a) Alcohol | b) Water | c) Sulphuric acid | d) Petrol |
|------------|----------|-------------------|-----------|
73. Which of the following has higher calorific value?
- |            |             |         |           |
|------------|-------------|---------|-----------|
| a) Methane | b) Hydrogen | c) Coal | d) Petrol |
|------------|-------------|---------|-----------|
74. Copper sulphate solution changes from blue colour to green when iron is placed in it. It is a ..... change
- |             |             |               |                 |
|-------------|-------------|---------------|-----------------|
| a) chemical | b) physical | c) reversible | d) irreversible |
|-------------|-------------|---------------|-----------------|
75. Temporary hardness of water can be removed by
- |                     |                                    |
|---------------------|------------------------------------|
| a) permutite method | b) ion exchange method             |
| c) heating          | d) adding $\text{Na}_2\text{CO}_3$ |
76. Pure water is
- |                  |                   |              |                      |
|------------------|-------------------|--------------|----------------------|
| a) Bad conductor | b) Good conductor | c) Insulator | d) Non polar solvent |
|------------------|-------------------|--------------|----------------------|
77. In candle flame luminous zone contains
- |                              |                           |
|------------------------------|---------------------------|
| a) Incomplete burning of wax | b) Complete burning of CO |
| c) Unburnt vapour wax        | d) All                    |
78. Which of the following metal can displace the hydrogen from water?
- |           |         |         |        |
|-----------|---------|---------|--------|
| a) Sodium | b) Iron | c) Gold | d) All |
|-----------|---------|---------|--------|
79. Permanent hardness of water can be removed by
- |                         |                        |
|-------------------------|------------------------|
| a) Electrolysis method  | b) Ion exchange method |
| c) Galvanisation method | d) Chlorination method |
80. Water is ..... in nature.
- |           |          |            |               |
|-----------|----------|------------|---------------|
| a) Acidic | b) Basic | c) Neutral | d) Amphoteric |
|-----------|----------|------------|---------------|

## BIOLOGY

81. P and Q are the plants that belong to same species. When grown in different conditions, P has shown less number of stomata and less venation, whereas Q has shown more number of stomata and more venation.

The condition in which Q grown can be

- |                                 |                           |
|---------------------------------|---------------------------|
| a) unrestricted water supply    | b) limiting soil moisture |
| c) limiting soil micronutrients | d) low temperature        |

82. The region where a plant organ is wounded shows
- no change in the rate of respiration
  - suspension of respiration
  - increase in the rate of respiration as wound healing requires more energy for cell division
  - decrease in the rate of respiration as wound healing requires conservation of energy for cell division.
83. Root hairs of a plant are important because
- they help in the anchorage
  - they provide habitat for symbiotic bacteria
  - increase the surface area for the water and nutrient absorption
  - increase the surface area for the absorption of sugars from the soil
84. Which of the following structures of a flower are **mismatched**?
- Petals – attract insects for pollination
  - Ovule – develops into seed after fertilization
  - Anther – produce female gametes
- a) Both I & II            b) Only II            c) Only III            d) None of the above

85. Match the following plants with their usual methods of asexual reproduction

	<b>Plant</b>		<b>Asexual reproduction</b>
P	Potato	I	Spores
Q	<i>Bryophyllum</i>	II	Leaf buds
R	Rose	III	Eyes
S	Fern	IV	Stem cutting

- |    | <b>P</b> | <b>Q</b> | <b>R</b> | <b>S</b> |    | <b>P</b> | <b>Q</b> | <b>R</b> | <b>S</b> |
|----|----------|----------|----------|----------|----|----------|----------|----------|----------|
| a) | III      | II       | IV       | I        | b) | III      | I        | IV       | II       |
| c) | I        | II       | III      | IV       | d) | IV       | III      | II       | I        |

86. Dispersal of seeds through the burst of fruits with sudden jerks can be found in

I. Maple            II. Castor            III. Balsam

- a) I & II            b) II & III            c) I & III            d) II only

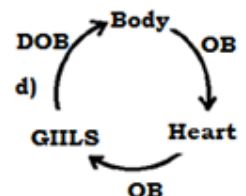
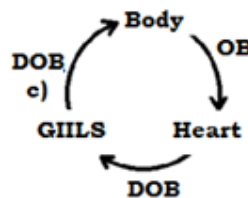
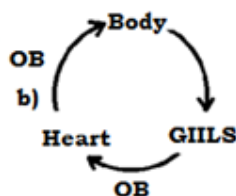
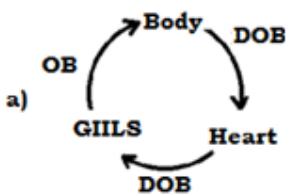
87. Cross – pollination is

- cross between two completely unrelated plants
- transfer of pollen grains to the stigma of the same flower
- transfer of pollen grains to only the stigma of another flower of the same plant.
- transfer of pollen grains of a flower to the stigma of another flower of a same plant or that of a different plant

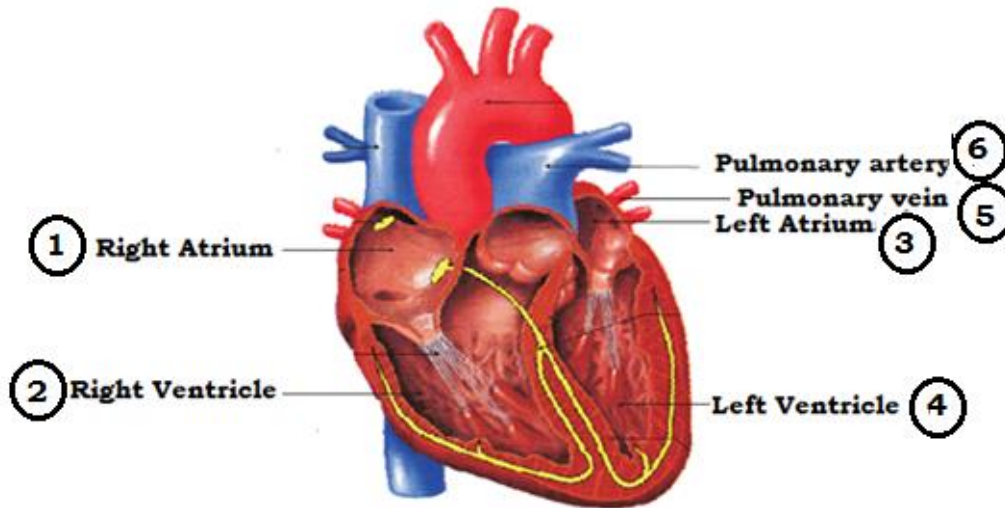
**Read the following passage and answer questions from 88 to 90**

Amazon rain forest in south America has the greatest biodiversity on earth – it is home for more than 40,000 species and more than 1, 25,000 invertebrate animals. It is called the lungs of the planet. It is being cut & cleared for cultivating soya beans and for conversion to grass lands for raising beef cattle.

88. “Amazon rain forests are called lungs of the planet” because
- they are present on the earth in the position similar to lungs in our body
  - they purify the air through respiration
  - they purify the air through photosynthesis
  - of their large size
89. Clearing of these forests lead to
- increase of our natural resources
  - increase of green house gases like CO<sub>2</sub>
  - increased soil erosion
  - both b & c
90. Pick the correct statement(s) among the following
- Forests act as natural absorbers of rain water and help in controlling floods
  - Micro organisms reduce the amount of humus on the forest’s floor
- I only
  - II only
  - both I & II
  - neither I nor II
91. Find the false statement with respect to breathing in human beings
- The dome shaped diaphragm becomes flat during inhalation
  - Ribs move down and inwards during exhalation
  - Sneezing is an involuntary activity that helps in expelling the dust particles inhaled
  - Inhaled air contains 16.4% of oxygen whereas exhaled air contains 0.04% of carbon dioxide
92. Find the correct pathway of air in to the body of an insect
- Tracheae → body tissues → spiracles
  - Spiracles → body tissues → tracheae
  - Spiracles → tracheae → body tissues
  - Body tissues → spiracles → tracheae
93. If the skin of an earthworm is dried up
- It can’t perform locomotion
  - It can’t digest the ingested food
  - Its blood circulation gets stopped
  - It will die due to asphyxiation (breathlessness)
94. Find the correct pathway of blood circulation in a fish
- [ key words ⇒ OB = oxygenated blood; DOB = Deoxygenated blood]



95. Observe the following diagram showing human heart



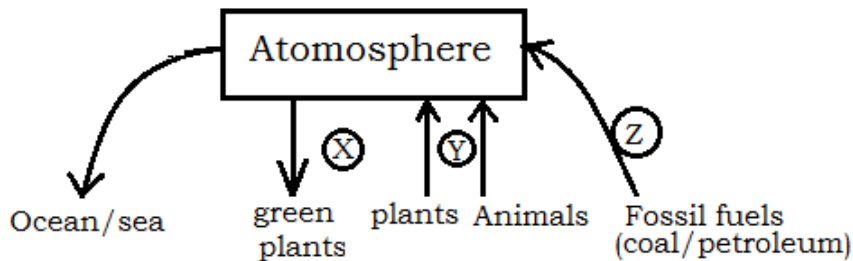
Find the correct pathway of the blood in venacava to reach in to the left ventricle via lungs.

- a) 1 → 2 → 3 → 5 → 6 → 4                      b) 1 → 2 → 6 → 5 → 3 → 4  
 c) 1 → 2 → 5 → 6 → 3 → 4                      d) 3 → 4 → 5 → 6 → 1 → 2

96. Study the following statements and find the wrongly quoted one with respect to excretion.

- a) The correct pathway of urine is, kidney → Ureters → Urinary bladder → Urethra  
 b) Birds and reptiles like snakes & lizards, excrete uric acid  
 c) Dialysis is being done due to failure of kidneys  
 d) An adult human normally passes about 2.5 L of Urine in a day

97. Observe the following flow chart



Find the gaseous nutrient and the events marked X, Y & Z in the given cycle in nature

	<b>GAS</b>	<b>X</b>	<b>Y</b>	<b>Z</b>
a	CO <sub>2</sub>	Photosynthesis	Respiration	Combustion
b	O <sub>2</sub>	Respiration	Excretion	Combustion
c	N <sub>2</sub>	Fixation	Excretion	Combustion
d	H <sub>2</sub> O	Combustion	Respiration	Fixation

98. Seeds formed from a pistillate flower (female flower) of papaya give rise to

- a) All female plants only                      b) All male plants only  
 c) Male/ Female plants                      d) Plants with bisexual flowers

**Read the passage carefully and answer the questions that follow**

The process of sending out of nitrogenous wastes from the body is called excretion. In animals the chief excretory product mostly depends on their habitat. Ammonia, Urea and Uric acid are the main nitrogenous wastes formed in animals. Among these, ammonia is highly toxic whereas uric acid is least toxic. Moreover excretion of uric acid doesn't require much water

99. Find the correct set of ureotelic (urea excreting) animals
- a) Fish, Frog, Snake
  - b) Human beings, Adult frog, Earthworm
  - c) Pigeon, Lizard, Crocodile
  - d) All aquatic animals
100. The long summer sleep of animals is called Aestivation. An aestivating frog excretes mainly
- a) Ammonia
  - b) Urea
  - c) Uric acid
  - d) Both a & B

\* \* \* \* \*

**VISTO-2015**  
**SEASON - II ANSWER KEY**  
**TO**  
**CLASS - VII**

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