

**S****I****M****S**<sup>®</sup>

(SCHOLARS INTEGRAL MATHS &amp; SCIENCE OLYMPIADS)

**BIGGEST NATIONAL LEVEL OLYMPIAD (STAGE - II)****MAX. MARKS : 100****SISO QUESTION PAPER****TIME: 60 MIN.**

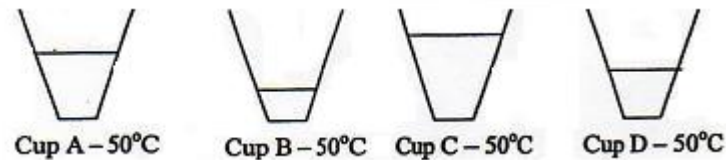
NAME OF THE STUDENT : .....  
HALL TICKET NUMBER : .....  
NAME OF THE SCHOOL : .....

**INSTRUCTIONS:**

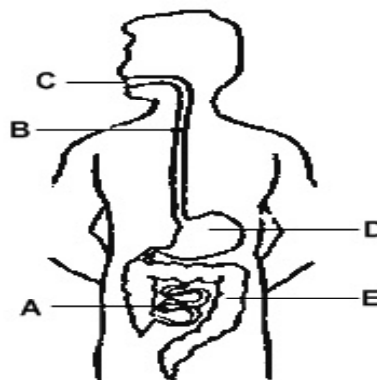
- ✦ This question paper contains 25 questions.
  - ✦ All questions are single correct answer type.
  - ✦ Each question carries 4 marks.
  - ✦ No negative marks.
  - ✦ Check whether 25 questions printed or not.
  - ✦ Read the instructions carefully given on the OMR sheet.
  - ✦ Hand over OMR Sheet to the invigilator before leaving the exam hall.
  - ✦ Retain Question paper with you.
  - ✦ Results will be available at [www.simsolympiads.org](http://www.simsolympiads.org) .
  - ✦ One copy of results will be sent to the concerned school mail id.
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**Single Correct Answer Type :****25 × 4 = 100M**

1. Johnny was given four cups of water as shown below. Arrange the cups in descending order in terms of the amount of heat they contain.



- 1) B, D, A, C      2) C, D, A, B      3) C, A, D, B      4) None of these
2. Complete the passage using words given in the options below.
- Water is an essential component to sustain \_\_\_A\_\_\_ on earth. On average the body of an adult human being contains \_\_\_B\_\_\_ of water. Fresh water is useful for human beings. The fresh water bodies include rivers, ponds, \_\_\_D\_\_\_. Sea and oceans water include \_\_\_E\_\_\_ water.
- | A        | B   | C     | D     |
|----------|-----|-------|-------|
| 1) Air   | 1%  | salty | lakes |
| 2) Life  | 70% | sea   | river |
| 3) Life  | 70% | lakes | salty |
| 4) Fresh | 1%  | sea   | lakes |
3. The diagram below shows the human digestive system. In which of the following does digestion occur ?



- 1) D only      2) A & E only      3) A, C & D only      4) A, B, C & D only
4. Match the following and select the CORRECT option.

**ANIMAL**

- i) Hydra  
ii) Euglena  
iii) Amoeba  
iv) Paramecium

**LOCOMOTORY ORGAN**

- p) Pseudopodia  
q) Cilia  
r) Tentacles  
s) Flagellum

1) i - s, ii - r, iii - q, iv - p

2) i - p, ii - q, iii - r, iv - s

3) i - s, ii - p, iii - q, iv - r

4) i - r, ii - s, iii - p, iv - q

5. Peter drew his observations of the moon. He would see the full moon on \_\_\_\_\_.

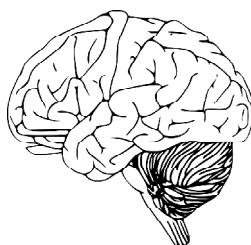


- 1) 7th August      2) 14th August      3) 21st August      4) 28th August
6. The table shows the percentages of gases A, B and C.

A	B	C
0.03%	21%	78%

What change would you expect if exhaled air was tested?

- i) The percentage of gas A will increase
  - ii) The percentage of gas B will remain unchanged
  - iii) The percentage of gas C will remain unchanged
- 1) (i), (ii) and (iii)      2) Both (ii) and (iii)
- 3) Both (i) and (iii)      4) Both (i) and (ii)
7. The part of the brain which is considered as the site of intelligence and thinking is\_\_\_\_\_.



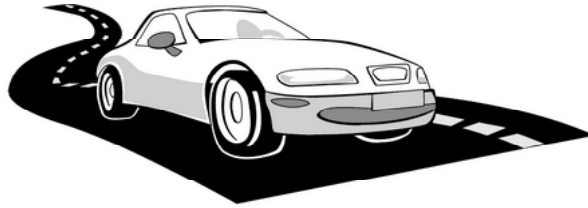
- 1) Cerebrum      2) Cerebellum      3) Medulla      4) Spinal cord
8. John runs every morning.



Which of the following system(s) is/are working more actively during John's run?

- (i) Digestive system
  - (ii) Muscular system
  - (iii) Circulatory system
  - (iv) Respiratory system
- 1) (i) & (ii)      2) (iii) & (iv)      3) (ii),(iii) & (iv)      4) (i),(ii),(iii) & (iv)

9. Mani is thinking about different units that can be used to express the average speed of a car on a highway. What units may be used to express the average speed ?

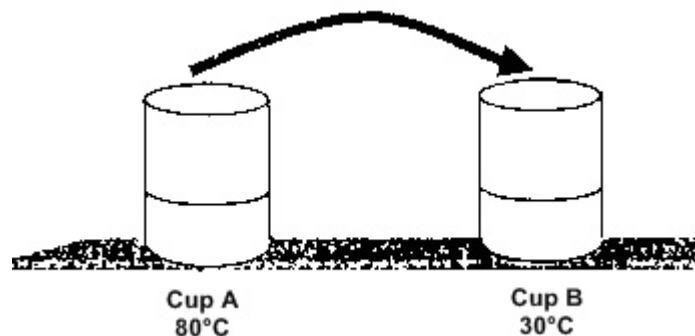


- 1) Kilometers per hour                      2) Meters per second  
2) Kilometers per minute                  4) All of these
10. Observe the following table that differentiates physical and chemical changes.

	Column - I	Column - II
Statement-I	Change can not be reversed	Conversion of ice into water
Statement-II	Change can be reversed	Melting of wax
Statement-III	They are temporary changes	No new substance is formed

Choose the incorrect statements :

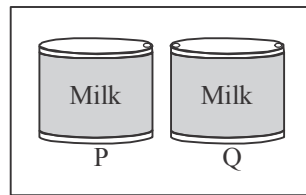
- 1) I and III                  2) I and II                  3) II and III                  4) Only II
11. I receives information from various parts of the body and send it to the brain. Who am I ?
- 1) Cerebellum                                  2) Vertebral column  
3) Spinal cord                                  4) Brain stem
12. Which of the following parts belong to the circulatory system?
- (i) Nose                  (ii) Mouth                  (iii) Heart                  (iv) Blood vessels
- 1) Both (i) & (ii)                                  2) Both (iii) & (iv)  
3) (ii), (iii) & (iv)                                  4) (i), (ii), (iii) & (iv)
13. Keerthi poured some water into two cups. The water is of different temperature as shown below.



What is likely to be the final temperature of the water if he were to pour all the water in cup A into cup B?

- 1) About 20°C                  2) About 60°C                  3) About 80°C                  4) About 110°C

14. The figure shows two condensed milk tins P and Q, with one hole and Q with two holes.



It was observed that milk flowed out faster from Q than from P when tilted. Why?

- 1) Milk only flows out through Q
  - 2) Q is bigger than P
  - 3) Air enters through one hole and pushes the milk out from the other hole
  - 4) Air enters through both holes and pushes the milk out from Q
15. Presence of sharp claws and powerful feet in the fishing eagle is an adaptation to

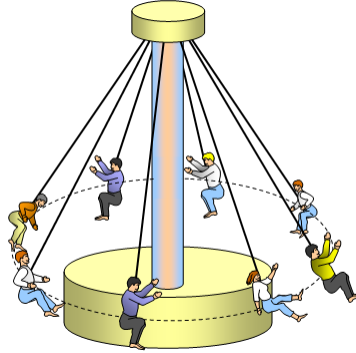


- 1) Method of self protection
  - 2) Changing environment
  - 3) Climate
  - 4) Method of feeding
16. Which of the following are transported by the blood?
- (i) Oxygen
  - (ii) Cell sap
  - (iii) Digested food
  - (iv) Carbon dioxide
- 1) (iii) & (iv)
  - 2) (i), (iii) & (iv)
  - 3) (ii), (iii) & (iv)
  - 4) (i), (ii), (iii) & (iv)
17. No matter how hard you look, you'll never find me,  
Unless you have a telescope to help you see.  
I was once called a planet, but not any more.  
Now I'm just a "Dwarf Planet," but too important to ignore. Which planet am I?
- 1) Mercury
  - 2) Pluto
  - 3) Mars
  - 4) Saturn
18. Match the types of soil in Column - I with their properties in Column - II.

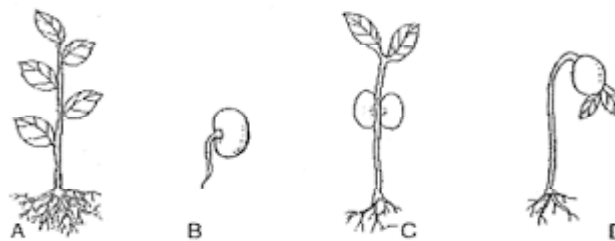
	Column - I		Column - II
p)	Loam	i)	Hardest layer of the soil
q)	Top soil	ii)	The layer below the top soil
r)	Sub soil	iii)	Best for the growth of the plants
s)	Bed rock	iv)	Roots of plants lie in this layer

- 1) p-iii, q-iv, r-i, s-ii
- 2) p-iv, q-iii, r-i, s-ii
- 3) p-iii, q-iv, r-ii, s-i
- 4) p-ii, q-i, r-iv, s-iii

19. One of our sense organ helps us to differentiate colours, shapes, sizes and distances of objects around us. Name it.  
 1) Ears                      2) Eyes                      3) Skin                      4) Tongue
20. Name the joint which allows our head to turn to the left and right, and also up and down.  
 1) Gliding joint              2) Pivot joint              3) Hinge joint              4) Ball and Socket joint
21. You might have observed following kind of ride in exhibitions. The motion shown by the man who is on the ride is \_\_\_\_\_



- 1) Circular motion                      2) Rotatory motion  
 3) Both (1) & (2)                      4) None of these
22. Which of the following groups of animals have scales on their body surfaces?  
 1) Crocodile, Snake and Crab              2) Crocodile, Snail and Snake  
 3) Pangolin, Crocodile and Snail              4) Pangolin, Crocodile and Snake
23. In what ways are Penguin and Turtle similar ? Choose the CORRECT Statement.  
 (i) - They have flippers to help them to move in water.  
 (ii) - They have lungs to breathe in oxygen.  
 (iii) - They both reproduce by laying eggs.  
 1) (i) & (ii) are Correct                      2) (i) Only Correct  
 3) (ii) Only Correct                      4) (i), (ii) & (iii) are Correct
24. Arrange the following stages in CORRECT sequence.



- 1) A → B → C → D                      2) B → D → C → A  
 3) B → C → D → A                      4) B → D → C → A
25. Which of the following effects the weather.  
 i) The sun effects the weather              ii) The wind effects the weather  
 iii) The clouds and the rain effects the weather  
 1) (i) (ii) and (iii)              2) (i) and (ii)              3) Only (iii)              4) Only (i)