



INTSO EDUCATION

SCIENCE TALENT SEARCH OLYMPIAD (STSO) 2015-16

STAGE - 1

TIME : 60 min.

CLASS : III

Max. Marks : 50

Instructions:

- ⇒ Fill the OMR sheet completely and carefully.
- ⇒ Each question carries one mark and has only one correct answer. No negative marks
- ⇒ The question paper contains 50 questions to be answered in 60 minutes.

PHYSICS

1. Force is required to _____ something. []
1) only push 2) only pull 3) push or pull 4) none of these
2. _____ is ability to do work. []
1) Power 2) Energy 3) Force 4) Mass
3. Which of the following stores energy in it []
1) Food 2) Petrol 3) Battery 4) All the above
4. When you sit at some place, then work done by you is []
1) Zero 2) Positive 3) Negative 4) All the above
5. Energy can be measured in _____ []
1) kg 2) km 3) joule 4) newton
6. A simple machine can []
1) Make work easier 2) Change the direction of force
3) Increase speed of work 4) All the above
7. The pulling force exerted by the earth is called _____ []
1) Muscular force 2) Frictional force 3) Gravitational force 4) Electrostatic force
8. It is easier to move an object over _____ []
1) Horizontal plane 2) Vertical plane 3) Inclined plane 4) Circular plane
9. _____ is the primary source of energy for us []
1) Earth 2) Sun 3) Moon 4) Stars
10. The following is used to lift a heavy vehicle just above the ground []
1) Screw - jack 2) Wheel 3) Lever 4) Axle
11. Work done (W), force applied (F) on a body, and distance (S) moved by a body are related as []
1) $W = F \times S$ 2) $W = S - F$ 3) $W = F \div S$ 4) $W = F + S$
12. Among the following simple machines are []
1) Needle 2) Knife 3) Scissors 4) All the above
13. Force causes []
1) Change of shape 2) Change of direction of motion
3) Change of mass 4) Both 1 and 2
14. Which of the following is used to cut the block of wood _____ []
1) Axe 2) Knife 3) Hammer 4) Screw driver

15. What form of energy is stored in battery . []
 1) Chemical energy 2) Heat energy 3) Mechanical energy 4) Light energy
16. The work done by a force may be []
 1) Positive 2) Negative 3) Zero 4) All the above

CHEMISTRY

17. Take a glass tumbler and place it in a glass bowl. Pour water gently in the tumbler so that it is completely filled. Then take a small stone, tie it with a thread. Lower the stone gently into water. Some water over flows from the glass tumbler and collects in the bowl and remove the stone from the glass tumbler . Based on above activity which conclusion is correct. []
 1) Only solids occupy space 2) only liquids occupy space
 3) Both solids and liquids occupy space 4) Both solids and liquids will not occupy space.
18. A substance 'X' has the following properties,
 i) a definite shape ii) a definite volume iii) can be heaped
 then 'X' will be []
 1) stone 2) sponge 3) sand 4) wood

19. Solid $\xrightleftharpoons[\text{Cool}]{\text{Heat}}$ liquid $\xrightleftharpoons[\text{Cool}]{\text{Heat}}$ vapour []
 (A) (B) (C)

In the above conversion, the state of matter which has the highest fluidity among A,B and C
 1) A 2) B 3) C 4) All will have same fluidity

20. Sana observed two different objects given by her teacher and recorded the observations in the book as given below.

S.No	Property	Object –1	Object –2
1	Compression	Not possible	Slightly possible
2	Diffusion	Not possible	Possible
3	Shape	Definite	Not definite
4	Volume	Definite	Definite

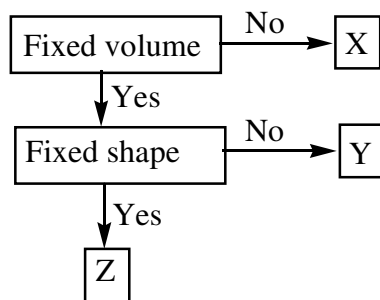
then object 1 and 2 respectively may be []

- 1) Sponge and water 2) stone and oxygen gas
 3) wooden block and water 4) stone and wooden block
21. Arrange the following substances in the increasing order of force of attraction between the particles []
 i) Natural gas ii) Salt iii) Kerosene
 1) i > ii > iii 2) i < iii < ii 3) i < ii < iii 4) iii < ii < i

22. Ice $\xrightleftharpoons[D]{A}$ water $\xrightleftharpoons[C]{B}$ water vapour []
 Identify the correct set of process and at what temperature it takes place
 1) B – freezing, at 0°C 2) A – Boiling, at 0°C
 3) C – Boiling, at 100°C 4) D – freezing, at 0°C

23. Which of the following are the correct representations []
 1) Ice $\xrightarrow[\text{Melting}]{\text{Cooling}}$ water 2) water $\xrightarrow[\text{boiling}]{\text{heating}}$ vapour
 3) Vapour $\xrightarrow[\text{condensation}]{\text{heat}}$ water 4) all

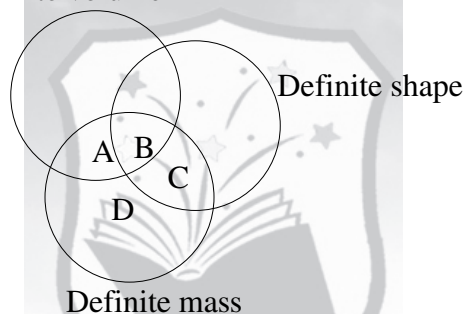
24. Study the given flow chart which is based on state of matter. According to it which of the following is correct []



X	Y	Z
1) Rubber ball	Water	Water vapour
2) Water vapour	Rubber ball	Water
3) Water vapour	Water	Rubber ball
4) Water	Water vapour	Rubber ball

25.

Definite volume




By observing the above Venn diagram suggest a letter to represent a substance in the solid state

- 1) A 2) B 3) C 4) D []
26. The maximum amount of solute which dissolves in 100g of water at a given temperature to form a saturated solution is called . []
- 1) solution 2) solubility 3) solute 4) solvent
27. Kavitha has prepared a solution of common salt in water by dissolving 10g of common salt . However if she adds more and more of common salt, a stage will come when common salt will stop dissolving in water , no matter how much you stir the solution . At this stage the clear solution in contact with its own solute is called. []
- 1) Super saturated solution 2) saturated solution
- 3) unsaturated solution 4) all the above
28. A substance which dissolves in a liquid is called []
- 1) solute 2) solvent 3) solution 4) all
29. A solution is defined as []
- 1) a heterogeneous mixture of solute and solvent
- 2) a homogeneous mixture of solute and solvent
- 3) a heterogeneous mixture of solute and solute
- 4) a homogeneous mixture of solvent and solvent
30. The melting point of ice (or) freezing point of water is []
- 1) 100°C 2) 10°C 3) 4°C 4) 0°C

31. Choose the correct statement from the following []
 I) Any thing which has mass and occupies space is called matter.
 II) Solids are highly incompressible.
 III) The gaseous particles move randomly.
 1) only I and II 2) only II and III 3) only I and III 4) all are correct
32. Suresh and Ramesh have purchased one 5 star chocolate in the school canteen and kept in the bag. During lunch break they thought to eat and have taken out from bag. When they observe it is present in liquid form in the pack and not possible for them to break it into two pieces, and they are worried why it was happened and asked their science teacher. Teacher told that it is because of process 'X' by absorbing heat energy. Then suggest them what is process 'X'. []
 1) Freezing 2) Melting 3) Boiling 4) All
33. Harish drinks milk daily in the morning . His mother gives him milk by mixing Boost in milk. Then identify the solute and solvent in the milk given by Harish's mother. []
 1) Boost – Solvent , Milk – Solute 2) Boost – Solvent, Milk– Solvent
 3) Boost – Solute, Milk – Solute 4) Boost – Solute , Milk – Solvent
34. Water is considered as universal solvent because []
 1) It cannot dissolve many substances 2) It can dissolve only few substances
 3) It can dissolve any substance 4) It can dissolve many substances

BIOLOGY

35. The ability of an organism to produce young ones is called []
 1) Respiration 2) Reproduction 3) Locomotion 4) Germination
36. Locomotion helps the organism []
 1) To escape from enemies 2) To search for food
 3) To search for mate 4) All the above
37. Identify the organism with six legs []
 1) Octopus 2) Star fish 3) House fly 4) Snail
38. **Organism** **Respiratory organ**
 Fish P
 Insect Q
 Leaves R
 From the given table P is []
 1) Stomata 2) Gills 3) Skin 4) Spiracles
39. A living thing []
 1) Can not grow 2) Can not move
 3) Can respond to stimuli 4) Can not produce young ones
40. The plant shown in this picture is []
 1) Creeper
 2) Climber
 3) Herb
 4) Shrub
- 
41. Which part of the plant prepares food material []
 1) Root 2) Stem 3) Leaf 4) Flower
42. Fibrous root system is seen in []
 1) Grass 2) Mango 3) Bean 4) Tamarind

43. Tiny pores on the leaves are []
 1) Stomata 2) Cavities 3) Vacuoles 4) Veins
44. Which of the following plants stores food in the leaves. []
 1) Mango 2) Cabbage 3) Carrot 4) Beet root
45. Which of the following nutrients are needed by our body []
 1) Carbohydrates 2) Proteins 3) Fats 4) All the above
46. Body building foods are []
 1) Carbohydrates 2) Fats 3) Proteins 4) Minerals
47. Which of the following is a balanced diet []
 1) Food with fats
 2) Food with carbohydrates & fats
 3) Food with carbohydrates, proteins, fats, vitamins and minerals
 4) food with vitamins
48. We should drink water. []
 1) For easy digestion of Food 2) To control body temperature
 3) Water helps the kidneys to clean blood 4) All the above
49. Rice is rich in []
 1) Carbohydrates 2) Proteins 3) Fats 4) Vitamins
50. Cooking makes food items []
 1) Hard 2) Tough to eat
 3) Soft and easy to digest 4) Unable to digest

