



INTSO EDUCATION

SCIENCE TALENT SEARCH OLYMPIAD (STSO) 2015-16

STAGE - 2

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. $\frac{1}{4}$ (one fourth) marks will be deducted for indicating incorrect response of each question.
- ⇒ The question paper contains 50 questions to be answered in 60 minutes.

PHYSICS

1. The force exerted by a magnet is called _____ []
1) muscular force 2) magnetic force 3) gravitational force 4) frictional force
2. A turbine is a machine used to produce _____ energy []
1) Heat 2) Light 3) Electricity 4) Magnetic
3. The length of your book is measured in _____ []
1) kilogram 2) metre 3) centimetre 4) millimetre
4. Force can make things _____ []
1) speed up 2) slow down 3) change the direction 4) all the above
5. Mass can be measured in _____ []
1) yard 2) ton 3) cubit 4) foot
6. _____ force, can stops or slow down a moving object []
1) Gravitational 2) Frictional 3) Electrostatic 4) Magnetic
7. Force is measured in _____ []
1) newton 2) kilogram 3) joule 4) metre
8. A beam balance is used to measure _____ []
1) mass 2) length 3) time 4) area
9. _____ is the capacity to do work. []
1) Force 2) Displacement 3) Energy 4) Power
10. Plants prepare food by using _____ energy []
1) Magnetic 2) Solar 3) Moon light 4) Water
11. 1 hour is equal to _____ []
1) 60 second 2) 60 minute 3) 6 minute 4) 6 second
12. Among the following, which converts the solar energy into electrical energy. []
1) solar cookers 2) solar water heaters 3) street lights 4) tube lights at home
13. Work done by a force may be _____ []
1) positive 2) negative 3) zero 4) all the above
14. The weight of an object is measured with _____ []
1) beam balance 2) weighing machine 3) metre scale 4) tape

15. A person holding a bag and waiting for a bus, then the work done by him is _____ []
 1) zero 2) greater than zero 3) less than zero 4) none of these
16. Time is measured in _____ []
 1) kilogram 2) gram 3) metre 4) second
17. Wind mills are used to produce _____ energy []
 1) wind 2) solar 3) electrical 4) heat

CHEMISTRY

18. Three elements X, Y and Z have the following sub atomic particles. []

Element	Electrons	Protons	Neutrons
X	12	A	12
Y	B	8	8
Z	20	C	20

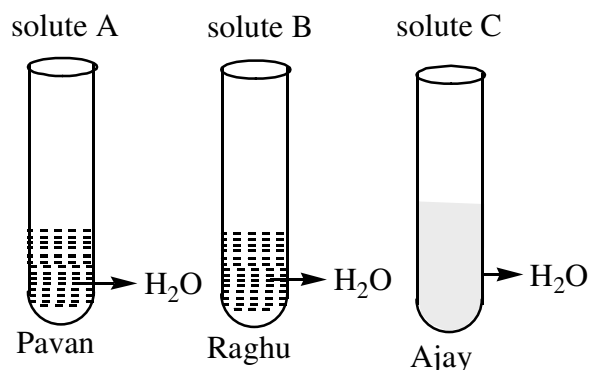
Then choose the correct combination for A, B and C respectively.

- 1) 12, 18, 19 2) 12, 12, 20 3) 12, 12, 8 4) 12, 8, 20
19. A divalent electropositive ion have 18 electrons in its third shell. What would be the atomic number of the element ? []
 1) 20 2) 23 3) 18 4) 30
20. Oxygen is most essential element in the atmosphere which is helpful for respiration of human beings. It is a good supporter of combustion. When the element phosphorus is exposed to open air it burns spontaneously by reacting with oxygen in the air. Then which of the following statements are correct about phosphorus. []
 1) The atomic number of phosphorus is 31 2) The mass number of phosphorus is 15
 3) Phosphorus contains 16 neutrons 4) All are correct
21. Find out the atomic number and mass number of an element X, which contains 17 electrons, 17 protons and 18 neutrons respectively. []
 1) 17 and 17 2) 17 and 18 3) 17 and 35 4) 35 and 17
22. Identify who am I ? []
 I) I am the most abundant element in the air with a mass number of 14
 II) I am the most expensive element used for making ornaments with an atomic number of 79
 III) I am the best conductor of electricity with a mass number of 108
 Choose the correct set respectively.
 1) Nitrogen, Platinum, Gold 2) Nitrogen, Gold, Silver
 3) Nitrogen, Gold, Copper 4) Nitrogen, Silver, Gold
23. We know that solution is a homogeneous mixture of two or more number of components mainly called as solute and solvent. Few examples of solutions are given below along with solute and solvent. Then identify the correct combination. []

S.No	Solution	Solute	Solvent
1	salt solution	salt	water
2	soda water	soda	water
3	sugar solution	sugar	water

- 1) 1 and 2 only 2) 2 and 3 only 3) 1 and 3 only 4) all are correct

24. Three students Pavan, Raghu and Ajay tried to prepare three solutions by taking substance A, B and C as solutes in water. After dissolving the solutes in water, Pavan and Raghu has obtained a clear solution. But Ajay got a turbid solution in the test tube, then choose the correct possibility of substances which can acts as solute A, B, C in water respectively. []



- 1) A - salt, B - sugar, C - oil
2) A - salt, B - sugar, C - soil
3) A - salt, B - oil, C - sugar
4) A - soil, B - salt, C- sugar
25. Liquids such as honey, coconut oil, animal fat are sticky and difficulty to pour out. Such liquids are called viscous liquids. The reason for this nature of liquid is []
1) More inter particle distance between particles
2) More friction between the layers of molecules
3) They are not liquids
4) All the above
26. **Process A** : It is a slow process, takes place only at surface of the liquid. It can cause cooling effect.
Process B : It is a rapid process takes place throughout and it occurs at a constant temperature of the liquid. []
- Choose the correct set.
1) Boiling, Evaporation
2) Evaporation, Boiling
3) Evaporation, sublimation
4) Boiling, Condensation
27. The shiny grey crystals of Iodine directly changes into violet coloured vapour without melting by a process called A. Then the vapour of iodine get deposited on the upper part of the test tube and appears as grey powdery particles. During this process 'A' the grey powdery particles of iodine deposited at the upper part of the test tube is known as []
1) sublimation
2) sublime
3) sublimate
4) all
28. Which of the following substances can be in liquid state at room temperature []
1) liquid oxygen
2) alcohol
3) liquid nitrogen
4) liquid ammonia
29. Arrange the following substances in the increasing order of inter particle force of attraction between particles []
i) Iron rod
II) Water
III) Oxygen
1) i > ii > iii
2) iii < ii < i
3) i > iii > ii
4) iii < i < ii
30. Which of the following gases are highly soluble in water. []
1) Ammonia
2) Chlorine
3) Hydrogen
4) Nitrogen

31. Three students simran, Lavanya and Maggy are preparing a solution of sugar as follows.

Name	Quantity of water taken	Temperature of water	[]
Simran	100 g	25 °C	
Lavanya	100 g	40 °C	
Maggy	100 g	60 °C	

Which of the above students can dissolve more sugar in 100 g of water.

- 1) Simran
2) Lavanya
3) Maggy
4) All will dissolve same

32. The chemical symbol of Bromine is 'Br'. It is derived from a greek word called []

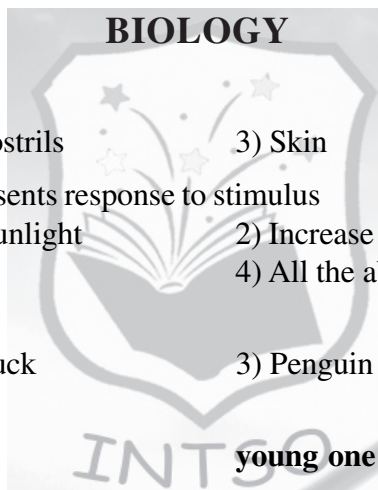
- 1) Bromino
2) Bromos
3) Bromide
4) All

33. The physical state of water at 0 °C is []

- 1) solid
2) liquid
3) gas
4) both 1 and 2

34. Which of the following property of particles of matter can be demonstrated by observing a burning incense stick []

- 1) Density
2) Physical state
3) Diffusion
4) Pressure



35. A bird breathe through its []

- 1) Gills
2) Nostrils
3) Skin
4) Spiracles

36. Which of the following represents response to stimulus []

- 1) Growth of plant towards sunlight
2) Increase in height
3) Increase in weight
4) All the above

37. Find the odd one []

- 1) Ostrich
2) Duck
3) Penguin
4) Crane

38. Match the following []

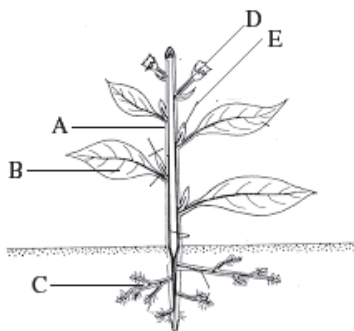
Animal

- A) Lion
B) Kangaroo
C) Goat
D) Horse

young one

- 1) Joey
2) Kid
3) Colt
4) Cub
1) A - 4, B - 1, C - 2, D - 3
2) A - 1, B - 4, C - 2, D - 3
3) C - 3, B - 1, C - 4, D - 2
4) A - 3, B - 2, C - 3, D - 1

39. Identify the part of a plant which undergoes sexual reproduction. []



- 1) B
2) A
3) D
4) E

40. Identify the climbers from following []
 1) Bitter gourd 2) Watermelon 3) Pumpkin 4) Jack fruit
41. Read the following []
 A) Dicot seed B) Monocot seed C) Parallel Venation D) Reticulate venation
 E) Tap root system F) Fibrous root system
- The characters which are related to mango are
 1) A, D, E 2) B, C, F 3) A, C, E 4) B, D, F
42. Lettuce store food in []
 1) Leaves 2) Root 3) Stem 4) Fruit
43. Read the following []
 A) Meat F) Sweet potato
 B) Fish G) Bread
 C) Ground nut H) Banana
 D) Soyabean I) Red gram
 E) Beet root J) Ghee
- From the above identify the foods which are rich in proteins
 1) A, B, C, G, H 2) A, B, C, D, I 3) A, B, I, J 4) A, C, F, G
44. The nutrients which helps in body growth and repairing the injured parts are []
 1) Fats 2) Carbohydrates 3) Proteins 4) All the above
45. Sonu has low bone strength, she is not able to do the work, and feeling tired. What should be enriched in her foot to improve bone strength []
 1) Vitamin - D and Calcium 2) Vitamin - A and Iron
 3) Vitamin - A and Calcium 4) Vitamin - K and Iodine
46. Identify the path of excretion in human beings []
 1) Ureter → Kidney → Urinary bladder → Urethra
 2) Kidney → Ureter → Urinary bladder → Urethra
 3) Kidney → Urinary bladder → Ureter → Urethra
 4) Kidney → Urethra → Urinary bladder → Ureter
47. Which organ system controls all functions of the body []
 1) Excretory system 2) Circulatory system 3) Digestive system 4) Nervous system
48. The blood vessels which carry oxygen to all the parts of body are []
 1) Arteries 2) Veins 3) Lymph Capillaries 4) Both 1 & 2
49. Bone cells store []
 1) Calcium 2) Magnesium 3) Phosphate 4) Both 1 & 3
50. From the stomach food passes in to []
 1) Large intestine 2) Small intestine 3) Rectum 4) Anus

