

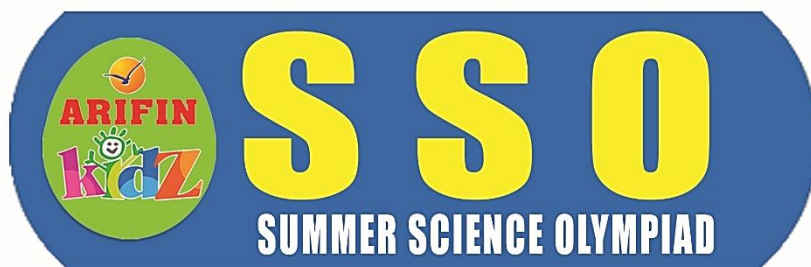
DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Name:.....

Arifinkidz Roll No:.....

Total Questions: 50

Time: 60 Minutes




Arifinkidz Summer Science Olympiad 2024

CLASS

6

SET-A

Guidelines for the Candidate

- ⚠ You will get additional 5 minutes to fill up information about yourself on the OMR Sheet, before the start of the exam.
 - ⚠ Write your **Name, School** and **Arifinkidz Roll No.** clearly on the OMR Sheet.
 - ⚠ The Question Paper comprises two sections:
General Science (45 Questions) and **Achievers Section** (5 Questions).
Each question in Achiever Section carries 3 marks, whereas all other questions carry one mark each.
 - ⚠ All questions are compulsory. There is no negative (-) marking.
 - ⚠ All questions are (MCQ) types. There is only ONE correct answer. Choose only ONE option for an answer.
 - ⚠ To mark your choice of answer by darkening the circles on the OMR Sheet, Use **HB Pencil** or **Blue/Black ball point pen** only. E.g.
Question: Which one of the following is not included in solar system?
A. Sun B. Planet C. Telescope D. Satellite
- As the correct answer is option C, you must darken the circle  corresponding to option C on the OMR Sheet.
- ⚠ Return the OMR Sheet to the invigilator at the end of the exam.

GENERAL SCIENCE

- Deficiency of protein and carbohydrates in infants leads to
(A) Marasmus (B) Goitre (C) Obesity (D) typhoid

- _____ is essential for forming haemoglobin in the blood.
(A) Calcium (B) Iron (C) Magnesium (D) Phosphorus

- It provides more than double the energy provided by carbohydrates or proteins in human body:
(A) Vitamins (B) Fats (C) Minerals (D) Roughage

- For developing strong bones and teeth, which two minerals will you take more in your diet?
(A) Iron & sodium (B) iron & calcium
(C) iodine & fluorine (D) Calcium & phosphorus

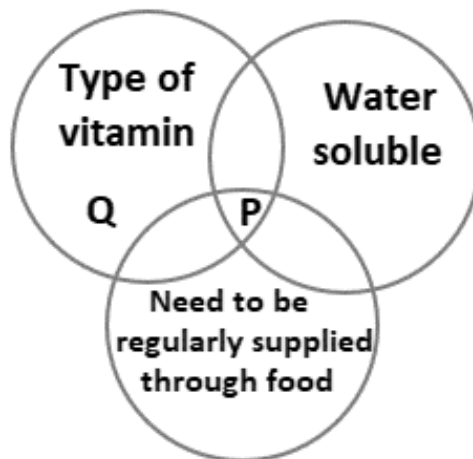
- The process of retting is done to obtain
(A) wool (B) jute (C) cotton (D) silk

- Which of these is not a property of jute?
(A) biodegradability (B) durability
(C) smoothness (D) strength

- Which of the following will burn the fastest?
(A) Cotton (B) Paper (C) Jute (D) Polyester

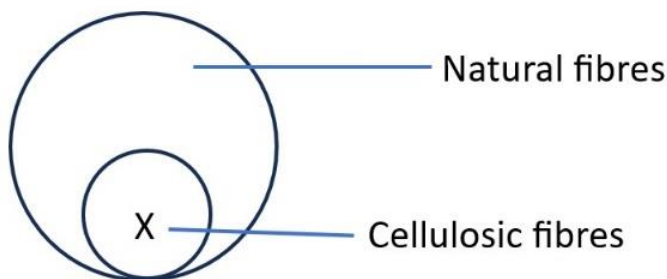
- Which of the following is incorrect difference between weaving and knitting?
(i) Weaving is done by machine while knitting is done by hands only.
(ii) Weaving uses one yarn while knitting uses two sets of yarn.
(iii) Weaving is done for silk only while knitting is done for wool only.
(A) (i) only (B) (ii) only (C) (iii) only (D) (i), (ii) and (iii)

9. Study the given Venn diagram and select the incorrect statement regarding it.



- (A) P could be a vitamin that helps keep gums healthy.
(B) Q could be a vitamin that helps to build strong bones and teeth.
(C) P could be a vitamin that helps in clotting of blood.
(D) Deficiency of P could cause scurvy and that of Q causes prolonged bleeding.

10. Refer to the given Venn diagram.



Which of the following could not be placed at X?

- (A) Cotton (B) Wool (C) Linen (D) Coir
11. Suresh put the same things in two different bags X and Y. However, bag 'Y' could not hold all the items and got torn.
What did Suresh conclude?
- (A) Bag 'X' is more flexible than bag 'Y'
(B) Bag 'Y' is lighter than bag 'X'
(C) Bag 'Y' is softer than bag 'X'
(D) Bag 'X' is stronger than bag 'Y'

12. Which of the following statements is correct?

- (A) Only some hard substances sink.
 - (B) All soft objects can be torn easily.
 - (C) All soft objects float in water.
 - (D) Some soft substances sink.
-

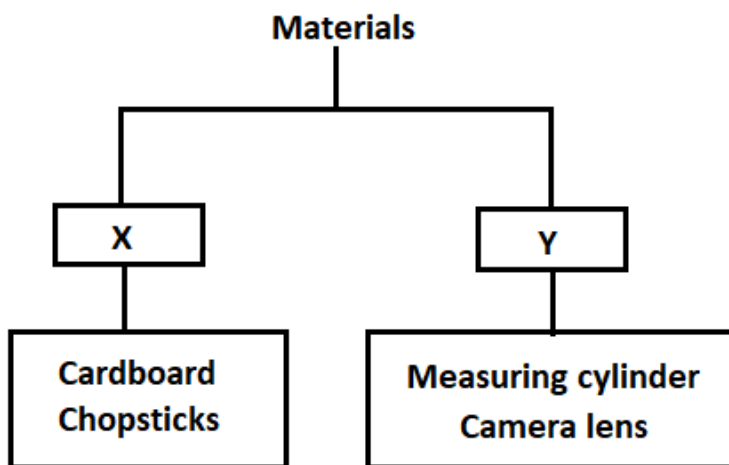
13. Why are overhead cables not insulated?

- (A) Because air is a bad conductor of electricity.
 - (B) Because air is a good conductor of electricity.
 - (C) Bare wires conduct electricity better.
 - (D) Both (B) and (C)
-

14. 1 kg of iron occupies less space compared to 1 kg of sponge. Why?

- (A) Iron has less density than sponge.
 - (B) Iron and sponge have equal densities.
 - (C) Iron has more density than sponge.
 - (D) Weight of iron per unit volume is less than that of sponge.
-

15. Read the given classification. Which of the following materials are used in the making X & Y?



- (A) Wood, metal
- (B) Plastic, glass
- (C) Bamboo, glass
- (D) Bamboo, plastic

16. You might have observed the preparation of ghee from butter and cream at home. Which method(s) can be used to separate ghee from residue?

- i.** Evaporation
- ii.** Decantation
- iii.** Filtration
- iv.** Churning

Which of the following combination is the correct answer?

- (A) (i) & (ii) (B) (ii) & (iii) (C) (ii) & (iv) (D) (iv) only
-

17. During summer, Boojho carries water in a transparent plastic bottle to his school. One day he left his bottle in the school. The bottle still had some water left in it. The following day, he observed some water droplets on the inner surface of the empty portion of the bottle. These droplets of water were formed due to

- (A) Boiling & condensation.
 - (B) Evaporation & saturation
 - (C) Evaporation & condensation
 - (D) Condensation & saturation.
-

18. Paheli asked for a glass of water from Boojho. He gave her a glass of ice-cold water. Paheli observed some water droplets on the outer surface of the glass and asked Boojho how these droplets of water were formed? Which of the following should be Boojho's answer?

- (A) Evaporation of water from the glass
 - (B) Water that seeped out from the glass
 - (C) Evaporation of atmospheric water vapours.
 - (D) Condensation of atmospheric water vapour.
-

19. Seema wants to prepare butter milk. Which method would she use to prepare it?

- (A) Sedimentation (B) Distillation (C) Churning (D) Winnowing

20. A mixture of chalk and common salt in water can be separated by
- (A) Sedimentation
 - (B) Filtration
 - (C) Sedimentation & filtration
 - (D) Sedimentation & Evaporation.
-

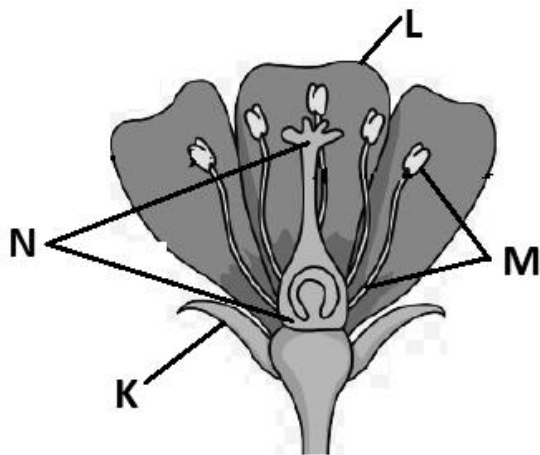
21. Which of the following is not an example of response to stimulus?
- (A) Stems of plants grow towards the light.
 - (B) Lotus flower open in the morning and close by sunset.
 - (C) Cockroaches run away when bright light is flashed on them.
 - (D) A child growing into an adult.
-

22. Select the correct option.
- (A) Endothermic change - Condensation, Exothermic change- Fusion
 - (B) Endothermic change - Dissolution of glucose in water, Exothermic change - Slaking of lime.
 - (C) Endothermic change - Evaporation, Exothermic change - Melting.
 - (D) Endothermic change - Sublimation, Exothermic change - Evaporation.
-

23. While lighting a candle, Paheli observed the following changes.
- i. Wax was melting.
 - ii. Candle was burning.
 - iii. Size of the candle was reducing.
 - iv. Melted wax was getting solidified.
- Of the above, the changes that can be reversed are
- (A) (i) and (ii) (B) (iii) and (iv) (C) (ii) and (iii) (D) (i) and (iv)
-

24. Which of these is not a characteristic of chemical change?
- (A) No change in molecules
 - (B) High evolution of heat
 - (C) Mostly irreversible
 - (D) Formation of new substances.

25. Refer to the given figure of longitudinal section of a flower.



Identify labelled parts K-N and select the incorrect statement regarding them.

- (A) K is the outermost whorl which protect the floral parts in bud condition.
- (B) L could be brightly colored to attract insects for pollination.
- (C) M part forms the innermost whorl of flower and has a long slender stalk i.e., anther and knob like structure on the top i.e., filament.
- (D) N is the female reproductive part of flower consisting of an ovary, style and stigma.

26. The reproductive organ of a flowering plant is

- (A) pollen grain (B) pistil (C) flower (D) stamen

27. Movement is brought about by the contraction and relaxation of

- (A) Bones (B) Muscles (C) Joints (D) All of these

28. Which of the following characteristics of birds help them to fly?

- (A) Hollow bones (B) Streamlined body shape
(C) Strong breast muscles (D) All of these

29. Which one of the following is the characteristics of birds?

- (A) Strong muscles (B) Light bones
(C) Hollow bones (D) All of these

30. The pivot joints occur in our skeleton at:

- i. Forearm
- ii. Knee
- iii. Neck
- iv. Hip

(A) i and ii (B) ii and iii (C) i and iii (D) ii and iv

31. Which one of the following has a hinge joint between them?

- (A) Skull and upper jaw (B) Skull and lower jaw
(C) Hip bone and back bone (D) Hip bone and thigh bone
-

32. Which one of the following occurs when we straighten our arm?

- (A) Both, biceps and triceps contract
(B) Both, biceps and triceps relax
(C) Biceps contracts but triceps relaxes
(D) Triceps contracts but biceps relaxes
-

33. In cockroaches, the body parts helping in movement are

- (A) three pairs of legs and two pairs of wings
(B) two pairs of legs and two pairs of wings
(C) two pairs of legs and three pairs of wings
(D) none of these
-

34. Muscular foot is a locomotory organ in

- (A) snakes (B) earthworm (C) housefly (D) snails
-

35. Which is an aquatic adaptation?

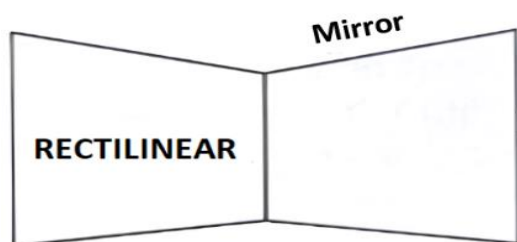
- (A) Streamlined body (B) Light and hollow bones
(C) Hair on body (D) Nostrils
-

36. Animals and plants have certain features which make them to survive in a particular habitat. This is called

- (A) adaptation (B) speciation (C) specialization (D) evolution

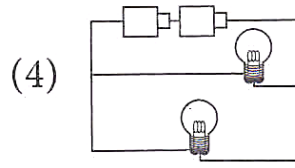
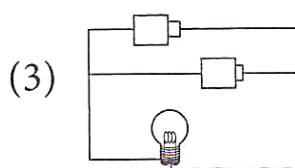
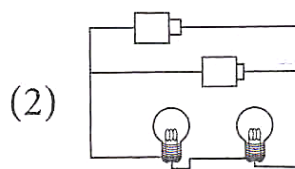
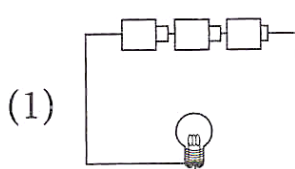
37. Which of the following can be considered to be an example of uniform motion?
(A) rolling a ball down a hill
(B) ironing a pair of trousers
(C) movement of the minute hand of a clock
(D) motion of a car on a road with heavy traffic
-
38. Time taken to do which of the following will you mostly express in seconds?
(A) walking to the school (B) eating dinner
(C) writing a word (D) having a bath
-
39. Three identical towels of red, blue and green color are hanging on a cloth line in the Sun. What would be the color of shadows in these towels?
(A) same (B) cannot be predict
(C) different (D) None of these
-
40. What property of light is responsible for the formation of shadows and pinhole images?
(A) Refraction (B) Reflecting (C) Straight line (D) None of these
-
41. On a sunny day, where we pass under a tree covered with a very large number of leaves, we often see bright circular patches of light in the ground (under the tree). What acts as screen in this case?
(A) Tree (B) Sun (C) Ground (D) None
-
42. Which of the following shows the correct arrangement?
(A) grams < milligrams < kilograms < ton < quintals
(B) 1 year < 1 century < 1 decade < 1 millennium
(C) millimeter < centimeter < meter < kilometer
(D) decimeter < centimeter < meter < kilometer

43. How many alphabets do remain the same when placed in front of a plane mirror as shown in the figure?



- (A) 11 (B) 7 (C) 5 (D) 4

44. The correct option for the brightness of bulbs in increasing order is (Assume all the bulbs and batteries identical.)



- (A) 1, 2, 3, 4 (B) 2, 3, 4, 1 (C) 1, 4, 2, 3 (D) 1, 4, 3, 2

45. Read the given statements and select the correct option.

Statement 1: Fuse wire must have low melting point.

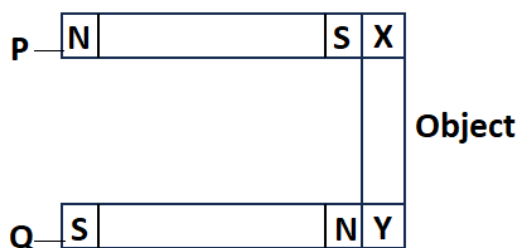
Statement 2: Fuse is used for small current flow only.

- (A) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.
 (B) Both statement 1 and 2 are true but statement 2 is not the correct explanation of statement1.
 (C) Statement 1 is true but statement 2 is false.
 (D) Both statements 1 and 2 false.

ACHIEVERS SECTION

46. Sikha took a metal spoon, a wooden spoon, a plastic spoon and a glass rod. She dipped one end of each item into boiling water for five minutes and then touched the end extending outside the water. What were her observations and their inference regarding conduction of heat by these items?
- (A) All the items become hot; hence all are good conductors of heat.
- (B) Metal and wooden spoons become hot at the other end which was outside water, hence metals and wood are good conductors of heat.
- (C) Metal and plastic spoons become hot, hence metals and plastic are good conductors of heat while wood and glass are bad conductors.
- (D) Only metal spoon becomes hot hence metals are good conductors of heat while wood, plastic and glass are bad conductors.

47. Two bar magnets are placed near an object. Which of the following statements regarding this are incorrect if the object is a magnet?



- (i) End X of the object must be North pole.
- (ii) End Y of the object must be South pole.
- (iii) Object obeys all the magnetic properties.
- (iv) If the object is broken then its magnetic strength reduces.
- (A) (i) and (iii) only (B) (ii) and (iii) only
- (C) (i) and (ii) only (D) None of these

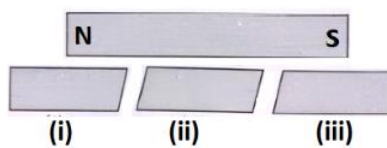
48. How do the areas covered with concrete affect the availability of ground water ?
- (A) Reduction of seepage of lake water.
- (B) Reduction of seepage of pond water.
- (C) Reduction of seepage of rain water through the ground reduces the availability of ground water.
- (D) None of these.

49. **Assertion A:** If we add some ammonium chloride (a solid) to a glass of water and stir it for some time, we find that solid disappears.

Reason R: Ammonium chloride is soluble in water.

- (A) Both A and R are true and R is the correct explanation of (A)
 - (B) Both A and R are true but R is not the correct explanation of (A)
 - (C) A is true but R is false.
 - (D) A is false but R is true.
-

50. A bar magnet got broken into three pieces.



Which of the following option shows the correct poles of the broken pieces?

- | | (i) | (ii) | (iii) |
|-----|-----|------|-------|
| (A) | N S | S N | N S |
| (B) | S N | N N | S N |
| (C) | N S | N S | N S |
| (D) | S N | N S | S N |