

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

5

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.

1. Leeta soaked some seeds and removed the outer covering.
What part of the seed was revealed?
(A) seed leaf (B) seed coat (C) seedling (D) shoot

 2. Plants that produce seeds with two cotyledons are called
(A) Monocots (B) Dicots (C) Terycots (D) Polycots

 3. Ram soaked some gram seeds. The next day he saw it had sprouted. What conditions did he give to the seeds for sprouting?

(A) Water, soil, air
(B) Water, warmth, air
(C) Water, sunlight, soil
(D) Warmth, sunlight, air
-
-
4. Non-flowering plants can produce new plants from
(A) Seeds and cones (B) Spores and cones
(C) Roots and seeds (D) Fruits and cones

 5. The baby plant inside the seed is also called the
(A) Seed leaf (B) Embryo (C) Cutting (D) Seedling

 6. Sona wants to grow some rose plants in her garden. What can be the best method to grow them?
(A) Bulbs (B) Stem cuttings (C) Seeds (D) Root

 7. A seed dispersed by wind:
(A) Dandelion (B) Peas (C) Coconut (D) Guava

 8. Seeds dispersed by water:
(A) Are light and spongy (B) Are winged
(C) Have spines on them (D) Have hairs on them

9. Seeta saw some interesting seeds on her visit to the Botanical Garden. She saw some hair like structures on them. She wondered how it reached there. Help her find out the mode of dispersal of these seeds

- (A) By Wind
- (B) By Water
- (C) By Explosion of fruit
- (D) By Animals



10. Harvesting is:
- (A) The process of scattering of seeds
 - (B) The process of producing more of one's own kind
 - (C) The process of gathering mature crops
 - (D) The process of a seed growing into a new plant

11. Choose the incorrect option:
- (A) Potato is an underground stem.
 - (B) Lilies grow from bulbs
 - (C) Tea plants can be grown from their stem cuttings.
 - (D) Banana forms new plants from its underground root.

12. Ram was asked to enumerate the steps taken by a farmer to grow a healthy crop. But he could not get them in proper order. This is what he wrote
- i) Remove weeds.
 - ii) Irrigate the field.
 - iii) Spray pesticides
 - iv) Till the soil
 - v) Harvest the crop
 - vi) Sow seeds.

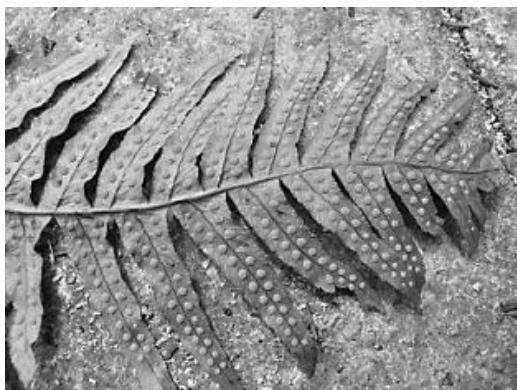
What should be the correct order:

- (A) iv), vi), ii), i), iii), v)
- (B) iii), v), ii), iv), i), vi)
- (C) i), iv), ii), v), vi), iii)
- (D) v), i), vi), ii), iv), iii)

13. Which of these reproduces through stem?

- (A) Potato (B) Sweet Potato (C) Bryophyllum (D) Begonia
-

14. The picture shown below shows a nonflowering plant with its mode of reproduction. Which of the following plants reproduce in a similar way –



- (A) Mushroom (B) Pine (C) Oak (D) Papaya
-

15. Sachin has fractured one of his bones in his rib cage. Which of the organs could be affected in the accident?

- (A) Kidneys (B) Lungs (C) lungs and heart (D) heart only
-

16. Dhoni tried to bend his elbow backward like how he could do with his shoulder. He found he could not. This is because the elbow joint is made up of

- (A) Hinge joint and allows back and forth movement
(B) Pivot joint and allows movement in one direction
(C) Hinge joint which is an immovable joint
(D) Gliding joint which allows back and forth movement
-

17. Ram was playing football. He sprained his ankle. Which joint was affected?

- (A) Gliding joint (B) Pivot joint
(C) Hinge joint (D) Ball and socket joint
-

18. Which of the following is made up of vertebrae?

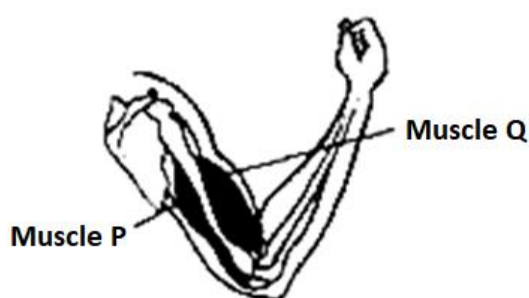
- (A) Spinal cord (B) skull (C) rib cage (D) backbone

19. Choose the incorrect statement that describes the following part of the human skeleton.

- (A) It protects the spine
- (B) It is S-shaped
- (C) It is made up of 33 ring-shaped bones.
- (D) It protects our head from shocks and jerks



20. Refer to the given figure and select the correct statement:



- (A) When muscle P and Q relax, arm moves down
- (B) When muscle P and Q contract, arm moves up.
- (C) When muscle P contracts and muscle Q relaxes, the arm moves up.
- (D) When muscle P relaxes and muscle Q contracts, the arm moves up.

21. Light passes through the _____ in the eye and an image is formed inside the eye. This image is converted into _____ and carried to the brain.

- (A) Membrane, impulse
- (B) Fluid, stimulus
- (C) Nerve, stimulus
- (D) Lens, impulse

22. The largest part of the brain controls:

- (A) Functions of the eyes, ears, nose and tongue
- (B) Movements and maintains balance
- (C) Regulates heartbeat, circulation of blood and breathing.
- (D) Carry messages.

23. Eye: Lens: Tongue : _____

- (A) Sensory nerve
- (B) Taste buds
- (C) Retina
- (D) Salivary glands

24. Actions controlled by an individual with the help of the nervous system are called
- (A) Involuntary actions (B) Voluntary actions
- (C) Automatic actions (D) Reflex actions
-

25. Mom needs to break open a nut. Rohan suggests this simple machine she can use (as shown in the picture below) Name the simple machine.

- (A) First class lever
- (B) Second class lever
- (C) Third class lever
- (D) Wheel and axle



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26. Which of these is the same type of simple machine as the handle of a door



- (A) Steering wheel (B) Scissors (C) Can opener (D) Nut cracker
-

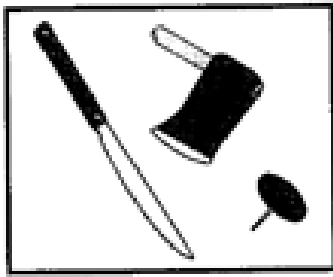
27. The playground in Seeta's school has a slide and see-saw. What simple machines do they represent?

- (A) Inclined plane, Screw (B) Inclined plane, Lever
- (C) Screw, Pulley (D) Inclined plane, pulley
-

28. Rohan used a spoon to open a lid of a tin. Rohan used a simple machine to make his work more convenient. The spoon works like a _____

- (A) First class lever (B) Second class lever
- (B) Third class lever (D) None of these

29. The picture below shows examples of



- (A) Screw (B) Wheel and axle (C) wedge (D) lever

30. Ringworm can spread by:

- (A) Contaminated food and water (B) Contact with infected person
(C) Mosquito bite (D) Contaminated air

31. Ram cries all the time. He has a pale skin. His skin is flaky. His arms and legs are weak and thin. He's suffering from:

- (A) Cholera (B) Dengue (C) Malnutrition (D) None of These

32. Edward Jenner developed the first vaccine against:

- (A) Chicken pox (B) Cowpox (C) Rabies (D) Small pox

33. Fibre should form an important part of our diet because :

- (A) It helps in growth (B) It gives us immunity
(C) It provides energy (D) It cleans the digestive system

34. Select the option that groups rocks of two different kinds as shown in the box.

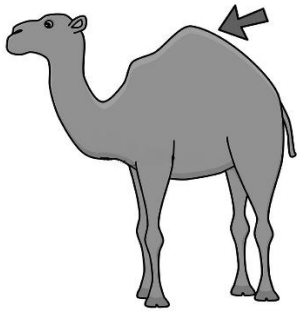
Limestone : Pumice

- (A) Granite : Basalt (B) Shale : Limestone
(C) Conglomerate : Granite (D) Pumice : Basalt

35. Crystals of this mineral are in perfect cubes :

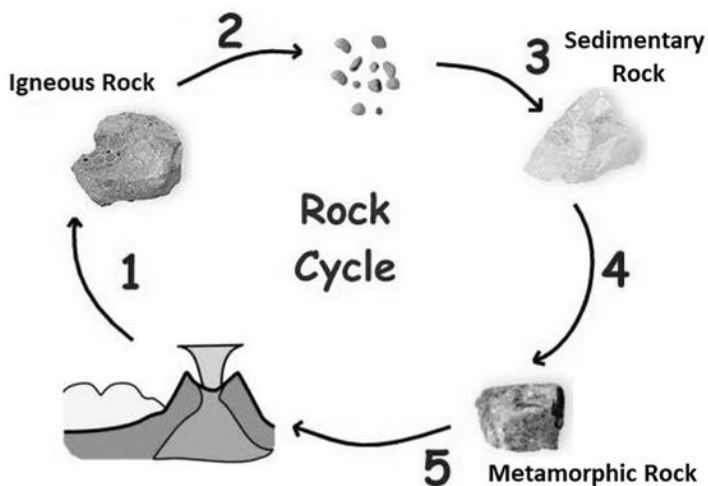
- (A) Diamond (B) Opal (C) Pyrite (D) Beryl

36. Name this structure which the camel has and what is it adapted for in the desert habitat?



- (A) Hump, Stores water
- (B) Skin, helps to bear the intense heat
- (C) Hump, Stores food in the form of fat
- (D) Skin, protects it from sandstorms

-
37. What happens in Step 4 in this diagram of the Rock Cycle?

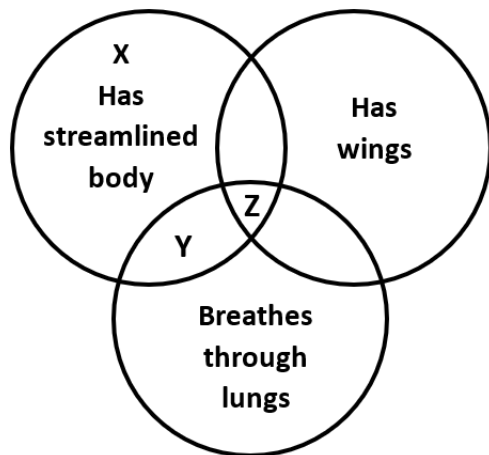


- (A) Weathering and erosion
- (B) Melting and cooling
- (C) Heating and pressing
- (D) compacting and cementing

-
38. When ice changes into water, the molecules of ice

- (A) Gain energy
- (B) Lose energy
- (C) exhibit high molecular attraction
- (D) will possess the same energy in both the states

39. Refer to the given Venn diagram and select the option that correctly identifies X, Y and Z.



X	Y	Z
(A) Dolphin	Fish	Crane
(B) Whale	Turtle	Sparrow
(C) Salmon	Dolphin	Eagle
(D) Shark	Sea horse	Swan

40. Ammonia is a compound because

- (A) it is a gas
- (B) it has one atom of nitrogen and three atoms of oxygen
- (C) it can dissolve in water
- (D) it is made up of more than one kind of atom

41. Jadeb Payeng planted large number of trees near his village in Assam and created the 'Moloi forest'. He practised _____.

- | | |
|---------------------|-------------------|
| (A) Terrace farming | (B) Deforestation |
| (C) Afforestation | (D) Reforestation |

42. Natural factor that causes soil erosion is:

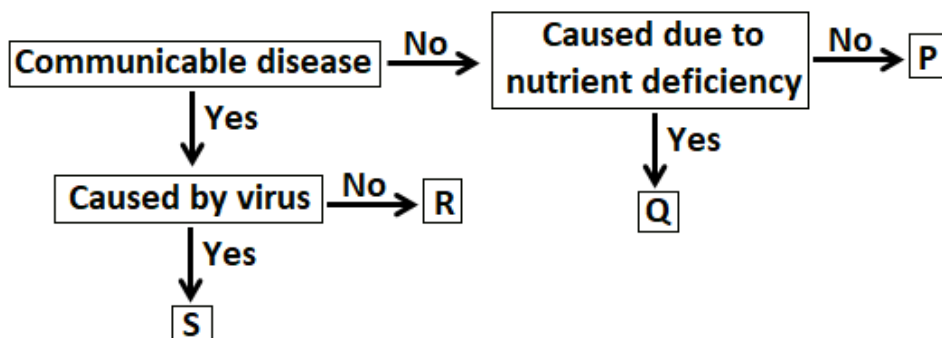
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|----------|-------------------|-----------------|------------------|
| (A) Wind | (B) Deforestation | (C) Overgrazing | (D) All of these |
|----------|-------------------|-----------------|------------------|

43. Ram suffers a lot of loss in his fields during rainy season when his field gets flooded with the overflowing river water nearby. So, he:
- (A) Plants cover crops
 - (B) Builds bunds
 - (C) Plants rows of trees around his field
 - (D) Leaves it barren
-
44. Humus is:
- (A) Remains of decayed plant and animal remains
 - (B) Grass growing on the soil
 - (C) Microorganisms living in the soil
 - (D) Small pieces of rocks and pebbles
-
45. Overgrazing leads to:
- (A) Barren land (B) soil conservation (C) fertile land (D) None of these

ACHIEVERS SECTION

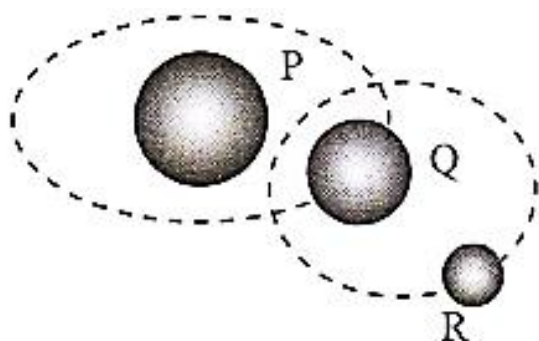
46. Monalisa categorized living organisms on the basis of their body covering. She made four groups of three organisms each. By mistake she placed one wrong member in each group. Identify the wrong member of each group and select the correct statement regarding them.
- Group I:** Gecko, Python, Anteater
- Group II:** Snail, Parakeet, Oyster
- Group III:** Sparrow, Hippopotamus, Dove
- Group IV:** Hedgehog, Porcupine, Tortoise
- (A) Anteater of group I should be interchanged with oyster of group II.
 - (B) Snail of group II should be interchanged with porcupine of group IV.
 - (C) Hippopotamus of group III should be interchanged with hedgehog of group IV.
 - (D) Parakeet of group II should be replaced with clam.

47. Refer to the given flow chart and select the correct statement regarding P, Q, R and S.



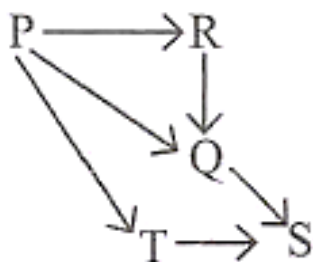
- (A) P can be nightblindness, a disorder in which a person has difficulty seeing indim light.
- (B) Q can be arthritis that can be transmitted from an infected person to a healthy one.
- (C) R can be plague that is spread by rat flea.
- (D) S can be malaria that is spread by Aedes mosquito.

48. Refer to the given figure. Identify P, Q & R and select the incorrect statement regarding them.

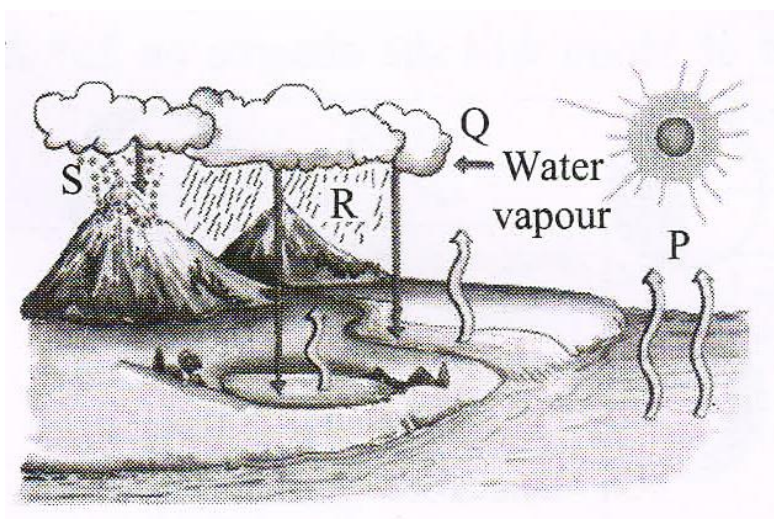


- (A) Movement of Q around P causes changes in season.
- (B) In total lunar eclipse, R is completely masked by the shadow of Q.
- (C) In total solar eclipse, R masks P completely.
- (D) Movement of P around R causes day and night.

49. Refer to the given food web and select the option that correctly identifies the type of organisms P, Q, R, S and T.



- (A) Producer – P, Herbivore – Q, Carnivore- R, Omnivore-S, T
 (B) Producer – P, Herbivore – R, T, Carnivore – Q, Omnivore – S
 (C) Producer – P, Herbivore – R, T, Carnivore-S, Omnivore - Q
 (D) Producer – Q, Herbivore – P, R, Carnivore - T, Omnivore – S
-
50. Refer to the given figure representing water cycle and its different processes labelled as P, Q, R and S.



Which of the following statements is correct regarding it?

- (A) Process P is responsible for the formation of dew on humid cold nights.
 (B) Process Q does not involve any change in state of water.
 (C) Excess of process R can sometimes lead to drought.
 (D) Process S is a form of precipitation that takes place at very low temperatures.