

MINDATHON SCIENCE OLYMPIAD (MSO)

CLASS- IV

TEST PAPER


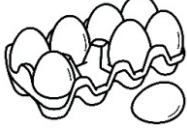

Time: 1 hour

Max Marks: 40


General Instructions:

- There are a total of 35 questions in this test.
- Read each question carefully and answer all of them.
- All the answers must be correctly marked in the OMR sheet provided to you.
- Questions (1–30) carry one mark each. Questions in the “Mindathon Little Scientists” (31-35) carry 2 marks each.


SECTION A: GENERAL SCIENCE AND SCIENTIFIC AWARENESS

1. The undersurface of a leaf has tiny pores called stomata. Why are they important?
 - a) They help in transpiration.
 - b) They help in gaseous exchange.
 - c) Both a) and b).
 - d) They help to absorb sunlight.
2. Sanya buys an aquarium. But she doesn't like some plants kept in it. Why are these plants important?
 - a) They absorb exhaled gas of fish
 - b) They keep the aquarium cool
 - c) They add to the beauty of aquarium.
 - d) They perform photosynthesis.
3. Which of these foods is a rich source of proteins?
 - a) 
 - b) 
 - c) 
 - d) All of these
4. Which of the following is/are true about microbes?
 - a) Microbes are always harmful.
 - b) Microbes are sometimes harmful and sometimes useful.
 - c) Microbes are always useful.
 - d) All of these are incorrect.
5. Some substances do not change into liquid on heating. Their conversion into gaseous state directly is seen in
 - a) Incense stick
 - b) naphthalene balls
 - c) Camphor
 - d) all of these
6. Which of these household products are not meant for EXTERNAL USE ONLY?
 - a) Mustard oil
 - b) Dishwashing liquid
 - c) Nailpaint remover
 - d) Floor cleaner


7. The blood vessels which have thick and elastic walls due to high pressure of blood are called
 a) veins b) capillaries c) arteries d) bronchi
8. Which of these life cycles do not represent metamorphosis?
 a) egg→maggot→butterfly b) egg→chick→hen
 c) spawn→tadpole→frog d) none of these
9. The cyclones going to hit the coastal regions are nowadays predicted much in advance. This is possible due to information presented by
 a) News channels b) fisherman
 c) tourists d) artificial satellites
10. A stone rolls down a hill, but it cannot climb uphill. This happens because of which of these forces?
 a) Gravitation b) Magnetic force c) Friction d) Muscular force
11. Which of these represent two inclined planes attached back to back?
 a) Axe head b) Knife edge c) Both a) and b) d) Pulley
12. People store water in different types of containers as shown below. In which of these does water remain the coldest?
- a)




b)



c)



d)


13. In which of the following animals, does the embryo develop outside the mother's body?
 a) crocodile b) whale c) hippopotamus d) dolphin
14. We feel the urge to urinate when
 a) our bladder walls contract b) our bladder walls are stretched
 c) our bladder is empty d) our bladder is half filled
15. In which of these types of fires, we can't use water as an extinguisher?
 a) forest fire b) oil fire c) electrical fire d) both b) and c)

SECTION B. EVERYDAY SCIENCE

16. Sumathi got a sprain in her leg. What should her mother do to relieve her?
 a) apply an ice pack b) give her warm milk with turmeric
 c) spray soothing medicine d) do any of these

17. The device shown here is used to measure

- a) mass
 c) weight

- b) volume
 d) amount



18. Suhani warmed milk and added some sour curd to it. The next morning, she finds
- milk converts into curd due to action of lactobacillus bacteria
 - milk converts into curd due to action of yeast fungi
 - milk converts into cream due to action of yeast fungi
 - milk converts into cream due to action of lactobacillus bacteria
19. Millets are preferred over wheat and rice for good health because
- they have more minerals
 - they have more dietary fibre
 - they are low in fats
 - All of the above
20. Leaves of many plants are edible. But we cannot consume which of these leaves?
- bay leaf
 - banana leaf
 - basil leaf
 - all of these
21. We do not find rainforests on which of the following continents?
- Asia
 - Africa
 - Australia
 - Antarctica
22. The set which contains foods that anaemic patients should take is
- apple, banana, gourd, spinach
 - milk, curd, banana, almond
 - iodised salt, seafood
 - salad, sprouts, oats, potato
23. A sticky yellow layer of germs that develops on the teeth is called?
- cavity
 - plaque
 - caries
 - dentine
24. Some solids are compressed or stretched to change their shape. Which of these do not have this property?
- spring
 - rubber
 - coal
 - clay
25. Which of these gases does a fire extinguisher spray?
- oxygen
 - water vapour
 - nitrogen
 - carbon dioxide



26. The emergency number for children in time of need is-
- 1098
 - 1091
 - 112
 - 101
27. Vanshika's grandfather is taken to hospital twice a week for dialysis. Which of his organs have failed?
- heart
 - kidney
 - pancreas
 - liver
28. An aerial animal which does not lay eggs is
- monkey
 - bat
 - bird
 - butterfly
29. To kill the germs present in water in a swimming pool, which of these is used?
- detergent
 - calcium
 - chlorine
 - any of these
30. People using wheelchair, can move in public places using
- lever
 - wedge
 - inclined plane
 - screw

SECTION C: MINDATHON LITTLE SCIENTISTS

31. Match the devices with energy conversion taking place:

- | | |
|------------------|-------------------------------|
| p. electric cell | l. potential to kinetic |
| q. catapult | m. chemical to heat and light |
| r. bulb | n. chemical to electrical |
| s. matchstick | o. electrical to light |

a) p-n; q-l; r-o; s-m

b) p-l; q-n; r-o, s-m

c) p-n; q-l; r-m; s-o

d) p-n; q-m; r-o, s-l

32. A breeze occurs during B time as C gets cooled down faster than D.

- | A | B | C | D |
|---------|-------|-------|-------|
| a) land | night | sand | water |
| b) sea | night | sand | water |
| c) land | day | water | sand |
| d) land | day | sand | water |

33. Which of the following is mismatched with its young one?

- | | |
|-------------------|----------------------|
| a) frog-tadpole | b) cockroach- maggot |
| c) kangaroo- joey | d) elephant- cub |

34. Read the names written in the grid below. How many of these would you find in a first aid box?

cotton swab	chapati	tweezers	gauge roll
tongs	antiseptic ointment	bandage	ice cubes

a) 4

b) 5

c) 6

d) 7

35. The process shown here is same as which of the following?

- a) burning of camphor
 b) heating of ammonium chloride
 c) conversion of ice into water
 d) Vanishing of water spilled on floor

