

GENERAL KNOWLEDGE

1. Name the scientist who suggested MKS (metre, kilogram, second) system which later becomes SI (International System of Units)?

(1)



Isaac Newton

(2)



Giovanni Giorgi

(3)



Napoleon Bonaparte

(4)



Galileo Galilei

2. The meter that is used to measure the distance moved by the vehicle is known as

(1)



Speedometer

(2)



Odometer

(3)



Chronometer

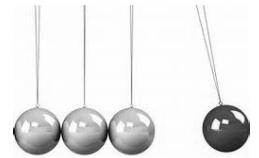
(4)



Ammeter

3. The metallic ball in a pendulum is called as _____.

- (1) Gong
- (2) Fork
- (3) Rod
- (4) Bob



4. Which is the biggest ocean?

- (1) Indian Ocean
- (2) Atlantic Ocean
- (3) Pacific Ocean
- (4) All of these

5. The technique to store water in underground tanks is known as _____

- (1) Filtration
- (2) Storage
- (3) Water Purification
- (4) Water Harvesting

6. Which of the following do not dissolve in water?

- (1) Sugar
- (2) Salt
- (3) Colour powder
- (4) Mud

7. Which of the following floats on water?

- (1) Air filled tube of a tyre
- (2) A sharpener
- (3) A stone
- (4) A chain

8. Which liquid is called universal solvent?

- (1) milk
- (2) water
- (3) kerosene
- (4) petrol

9. Which of the following is not a fundamental unit?



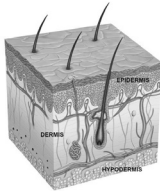

- (1) Metre
- (2) Kilogram
- (3) Kelvin
- (4) Cubic metre

10. The motion of a drawer table can be termed as:

- (1) Periodic motion
- (2) Circular motion
- (3) Translatory motion
- (4) Random motion



LIFE SCIENCE

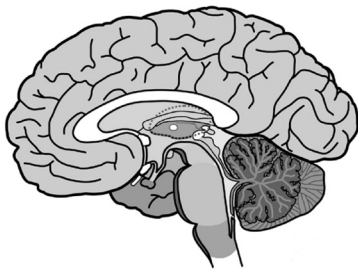
11. Mature ovary in plants forms the
- (1) Stamens
 - (2) Seeds
 - (3) Flower
 - (4) Fruits
12. Mustard, Rose and Petunia are
- (1) Unisexual flowers
 - (2) Monosexual flowers
 - (3) Bisexual flowers
 - (4) All of these
13. The solubility of water _____ with an increase in water.
- (1) increases
 - (2) decreases
 - (3) remains same
 - (4) sometimes increases and sometimes decreases
14. Pure water is
- (1) A compound
 - (2) A mixture
 - (3) An atom
 - (4) Complex
15. The process of solid changing directly in vapour form without becoming liquid is called
- (1) sedimentation
 - (2) sublimation
 - (3) evaporation
 - (4) condensation
16. Salt is obtained from sea water by using which of the following process.
- (1) Sedimentation
 - (2) Condensation
 - (3) Evaporation
 - (4) Centrifugation
17. Which fibres are used to make clothes?
- (1) Silk
 - (2) Polyester
 - (3) Cotton
 - (4) All of above
18. Which of the following are partial parasites?
- (1) Green plants
 - (2) Non-green plants
 - (3) Either (1) or (2)
 - (4) Neither (1) nor (2)
19. The internal factor which affects the process of photosynthesis is _____.
- (1) Temperature
 - (2) Chlorophyll
 - (3) Light
 - (4) All of these
20. The life processes that provides energy is/are
- (1) Nutrition
 - (2) Respiration
 - (3) Both Nutrition and Respiration
 - (4) Transpiration
21. The largest organ of human body is
- (1)  Brain
 - (2)  Heart
 - (3)  skin
 - (4)  Liver

22. The human cell contains
 (1) 44 Chromosomes (2) 48 Chromosomes
 (3) 46 Chromosomes (4) 23 Chromosomes

23. The function of hemoglobin is
 (1) To transport oxygen
 (2) Destruction of bacteria
 (3) Prevention of anemia
 (4) Utilization of energy

24. ORS is Oral Rehydration Solution.
 (1) True (2) False
 (3) Can't say (4) None of these

25. The largest part of human brain is



- (1) Medulla Oblongata (2) Cerebellum
 (3) Cerebrum (4) Mid-brain

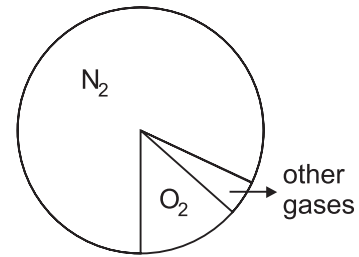
26. Carrot is orange in color because



- (1) It grows in the soil.
 (2) It is not exposed to sunlight
 (3) It contains carotene
 (4) The entire plant is orange in color

27. _____ is a saprophyte.
 (1) Venus flytrap (2) Mushroom
 (3) Lichen (4) Dodder

28. The air we breathe contain _____ of Nitrogen.



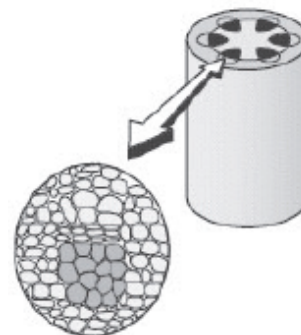
- (1) 21% (2) 20%
 (3) 78% (4) All of these

29. The process of removing salt from sea water is called
 (1) Desalination (2) Calcination
 (3) Evaporation (4) All of these

30. Water is a non-renewable resource.
 (1) True (2) False
 (3) Can't say (4) All of these




31. The ratio of the number of hydrogen atoms and those of oxygen in water is
 (1) 2 : 1 (2) 3 : 2
 (3) 2 : 3 (4) All of these

32. Shivam sliced a plant's stem into various sections and placed them under a microscope. He noticed that each of the sections had identical cell formations, which created tube-like structures in the stem.



- A main function of the stem is to
 (1) absorb minerals from the soil.
 (2) transport food and water.
 (3) protect against diseases.
 (4) capture sunlight for photosynthesis.

33. Which is the first thing that would happen if a plant could NOT obtain carbon dioxide?
- (1) It would not be able to reproduce.
 - (2) It would not be able to make food.
 - (3) It would not be able to get rid of waste.
 - (4) It would not be able to absorb minerals.
34. Plants absorb light energy and store that energy in the form of
- (1) water.
 - (2) carbon dioxide.
 - (3) sugar.
 - (4) oxygen.
35. Radha wanted to determine if certain seeds require sunlight to germinate. She placed one seed in a moist paper towel in the sunlight and another seed in an equally moistened paper towel in a dark closet. The seed in the sunlight germinated but the one in the closet did not. Radha reported to the class that this type of seed needs sunlight in order to germinate.
- Given this information, which statement would best describe an improvement in Radha's experiment that would strengthen her claim?
- (1) Use many seeds to conduct the experiment.
 - (2) Start the samples on different days.
 - (3) Use different amounts of water.
 - (4) Place the seeds in new locations.
36. Which of the following are destructive agents for our forests?
- (1) Urbanization
 - (2) Deforestation
 - (3) Global warming
 - (4) All of above

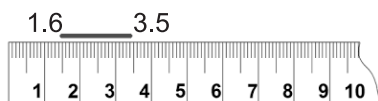
37. Microorganism feed upon dead plants and animals tissues and converts them into dark coloured substance called
- (1) Fertilizer
 - (2) Pesticides
 - (3) Manures
 - (4) All of these
38. New plants are produced from the leaves of some plants. Choose one example from the following:
- (1)  (2) 
 - (3) Both (a) and (b)
 - (4) None of these
39. Some insects consume nectar from flowering plants and help the plant by spreading pollen. Which type of relationship between insects and plants does this demonstrate?
- (1) parasitic
 - (2) competitive
 - (3) predator-prey
 - (4) mutually beneficial
- 
40. Salivary glands are:
- (1) Adrenal glands
 - (2) Exocrine glands
 - (3) Endocrine glands
 - (4) Both (a) and (b)

INTERACTIVE SECTION

41. Motion of a butterfly can be described as _____.
- (1) periodic motion
 - (2) circular motion
 - (3) translatory motion
 - (4) random motion



42. What is the correct measurement of the thread as shown in the scale below:



- (1) 1.5 cm
 - (2) 1.9 cm
 - (3) 3.4 cm
 - (4) 4.4 cm
43. Beating of a drum can be termed as which of the following type of motion?
- (1) periodic motion
 - (2) rectilinear motion
 - (3) rotatory motion
 - (4) circular motion

44. Motion of wheel of a car is an example of _____

- (1) translatory motion
- (2) rectilinear motion
- (3) curvilinear motion
- (4) circular motion



45. In _____ an object moves such that its distance from a fixed point remains the same.

- (1) translatory motion
- (2) rectilinear motion
- (3) circular motion
- (4) curvilinear motion

46. The following test design was developed by researchers:

Sleep Study

1. Select a volunteer to participate in the study.
2. Ask the volunteer to read a short story just before going to sleep.
3. Give the volunteer a multiple-choice test on the short story the following day.
4. Record the test results.

Which of the following describes the **greatest** flaw with the experimental design?

- (1) the test results were recorded
- (2) the volunteer went to sleep
- (3) the study was done overnight
- (4) only one volunteer participated

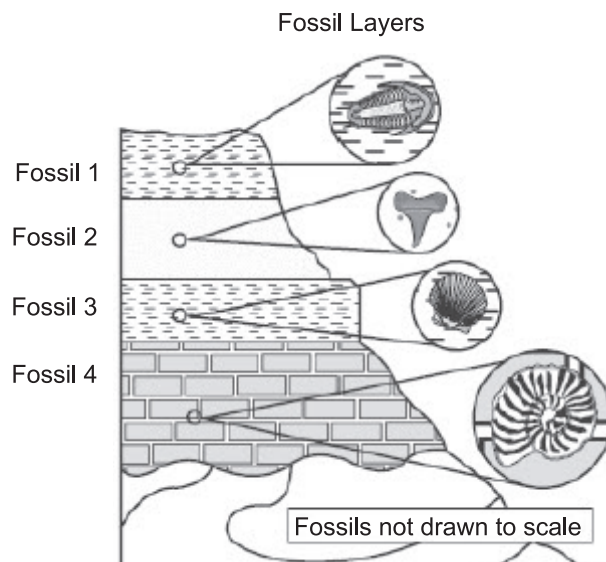
47. Speed of visible light in air is about:

- (1) 90 km/s (2) 30 km/s
- (3) 40 km/s (4) 60 km/s

48. Waste from household preparation, cooking, waste paper, plastic, clothes, constitute

- (1) Municipal waste (2) Industrial waste
- (3) Domestic waste (4) All of these

49. The diagram below shows exposed rock layers. Each rock layer contains a fossil of a different organism.



Which fossil most likely represents the oldest form of life?

- (1) Fossil 1 (2) Fossil 2
- (3) Fossil 3 (4) Fossil 4

50. Practice of rearing silkworms to produce silk is called apiculture.

- (1) True (2) False
- (3) Can't Say (4) None of these

51. On a hot day, a glass containing ice water slowly collects liquid on the outside of the glass. Which statement best explains where this liquid come from?

- (1) Air molecules outside of the glass turned to liquid on the outside surface of the glass.
- (2) Water from the inside of the glass seeped to the outside of the glass.
- (3) Water vapour from the air outside of the glass condensed on the outside surface of the glass.
- (4) Water from inside the glass and water from the air outside the glass combined on the outside of the glass.

52. Which kind of waves are used to make and receive cellphone calls?

- (1) Radio waves
- (2) Visible light waves
- (3) Sound waves
- (4) Gravity waves



53. Which of these is the main way that ocean tides are created?
- (1) The rotation of the Earth on its axis.
 - (2) The gravitational pull on the moon.
 - (3) The gravitational pull of the sun.
 - (4) All of above
54. During a scientific investigation, when should measurements be recorded?
- (1) when forming a hypothesis
 - (2) when designing an experiment
 - (3) when communicating results
 - (4) when gathering data
55. What does a light year measure?
- (1) Brightness
 - (2) Time
 - (3) Distance
 - (4) Weight
56. The loudness of a sound is determined by what property of a sound wave?
- (1) Frequency
 - (2) Wavelength
 - (3) Velocity or rate of change
 - (4) Amplitude or height
57. Four students work in a group to learn how rocks are formed. The teacher gives each of them a blue crayon and a red crayon and tells them to follow the steps on the board, as shown below.

How Rocks are Formed

Step	Activity
1	Break up the red and blue crayons into tiny pieces.
2	Put the pieces in your hand and squeeze them together to form a red-and-blue-speckled slab.
3	Place the slab in a beaker, and place the beaker on a hot plate to melt the slab.
4	Place the beaker with the melted slab into a bucket of ice to cool it down.

Which step best represents how a sedimentary rock is formed?

- (1) Step 1
- (2) Step 2
- (3) Step 3
- (4) Step 4

58. The decaying matter is normally:
- (1) Warm
 - (2) Having unpleasant smell
 - (3) Moist
 - (4) All of these
59. Which statement best describes organisms in a food web?
- (1) Producers acquire energy directly from the consumers.
 - (2) Consumers acquire energy indirectly from the Sun.
 - (3) Decomposers acquire energy directly from the Sun.
 - (4) Producers acquire energy indirectly from the decomposers.
60. When a solid substance is heated, individual molecules:
- (1) move faster.
 - (2) move slower.
 - (3) break apart into atoms.
 - (4) do not change speed or direction.



END OF THE EXAM