



Delhi Public School, Gandhinagar

OLYMPIAD SAMPLE PAPER

Class V

SCIENCE

Date:

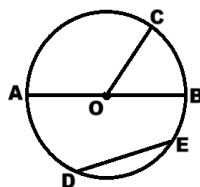
Time: 2 hours

M. Marks: 50

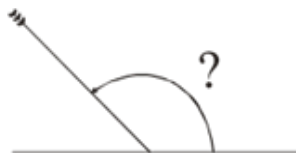
Name: _____ Sec: _____ Roll No.: _____

MENTAL ABILITY

1. **27,649 – 6,926 is best described as-**
 (a) A little more than 11,000 (b) A little more than 20,000
 (c) A little more than 25,000 (d) A little more than 30,000
2. **A circle is drawn, with centre point O . The line segment from point A to point B , through the Centre of the circle is called-**



- (a) An arc (b) A circumference
(c) A radius (d) A diameter
3. **Which could be the measures of the angles of a right triangle?**
 (a) $80^\circ, 50^\circ, 50^\circ$ (b) $36^\circ, 90^\circ, 54^\circ$ (c) $44^\circ, 96^\circ, 40^\circ$ (d) $110^\circ, 50^\circ, 20^\circ$
4. **A race started at 11:16 A.M. The first person to cross the finish line came in at 1:22 P.M. How long did it take the first person to reach the finish line?**
 (a) 13 hours 38 minutes (b) 2 hours 6 minutes
 (c) 1 hours 6 minutes (d) 2 hours 38 minutes
5. **An arrow makes an angle with the level ground, as shown in the picture. Which best names this angle?**

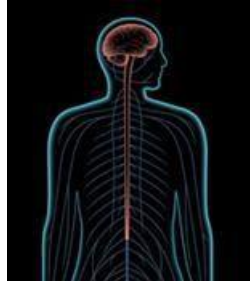


- (a) Obtuse (b) Right (c) Straight (d) Acute
6. **If $A = 5$, which number sentence is true?**
 (a) $A \times 4 = 20$ (b) $A - 3 = 8$ (c) $12 + A = 7$ (d) $15 \div A = 10$
7. **If $A = 1, B = 2, \dots, Z = 26$, what is the sum of the letters in the word "SCIENCE"?**
 (a) 65 (b) 61 (c) 58 (d) 70

SCIENCE

8. The jellyfish is an invertebrate because it lacks —
(a) Eyes (b) Blood (c) Backbone (d) Cells

9. The spinal cord is protected by-



- (a) Skull (b) Backbone (c) Ribs (d) Muscles
10. Oxygen, nitrogen, and carbon dioxide may be grouped together because at room temperature they are all-
(a) Colloids (b) Solids (c) Gases (d) Liquids
11. Which of these is a process that allows plants to convert light energy into food energy?
(a) Photosynthesis (b) Excretion (c) Reproduction (d) Digestion
12. Which of these is needed to measure the mass of a rock?
(a) A balance (b) A barometer (c) A thermometer (d) A metric ruler
13. Which of these can most easily attract magnets?
(a) Wood (b) Notebook (c) Iron nails (d) Eraser
14. Today, which human activity is responsible for endangering the greatest number of land animal species?
(a) Accidental starting of forest fires (b) Cutting wildflowers in national parks
(c) Destruction of habitats (d) Hunting for food and sport
15. Which of these probably causes the most air pollution?
(a) Cars (b) Wind (c) Rain (d) Trees
16. Read the given statements and select the option that correctly identifies them as true (T) and false (F) ones.
(i) Burning coal is an example of conversion of chemical energy into heat energy.
(ii) When we swim in a swimming pool, buoyant force acts on our body.
(iii) When an object vibrates, light energy is produced, which travels in a straight line.
(iv) If an electric bulb is lit in vacuum, no light rays can be seen.
- | | (i) | (ii) | (iii) | (iv) |
|-----|-----|------|-------|------|
| (a) | T | F | T | F |
| (b) | F | F | T | T |
| (c) | T | T | T | F |
| (d) | T | T | F | F |

17. Complete the given analogy by selecting the correct option.

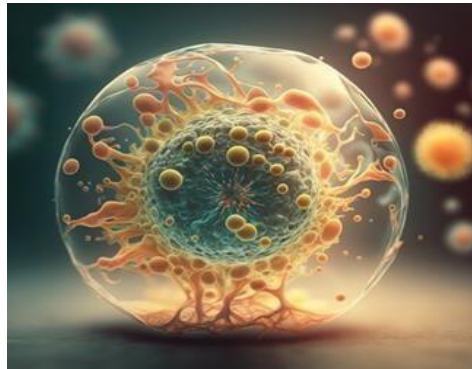
Rickets: Vitamin D : _____ Vitamin B₁

- (a) Beriberi (b) Scurvy (c) Night blindness (d) Anemia

18. Seeds of which of the following plants is dispersed by animals?

- (a) Milkweed (b) Xanthium (c) Cattail (d) Balsam

19. Which part of the cell controls all its activities?



- (a) Cell wall (b) Nucleus (c) Cytoplasm (d) Mitochondria

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

Statement I: It is advised to eat sources of vitamin C raw.

Statement II: Vitamin C may get destroyed if heated.

- (a) Both statements I and II are true and statement II is the correct explanation of statement I.
(b) Both statements I and II are true but statement II is not the correct explanation of statement I.
(c) Statement I is true but statement II is False.
(d) Both statement I and II are False.

21. Read the given statements and select the option that correctly identifies them as true (T) and false (F) ones.

- (a) Mustard plant is a herb which completes its life cycle in two years.
(b) Stilt roots grow downwards and provide extra support to the plant
(c) Plants having fibrous roots are usually easily pulled out from the ground.
(d) Leaf tendrils are found in *Gloriosa* plant.

- | | (i) | (ii) | (iii) | (iv) |
|-----|-----|------|-------|------|
| (a) | T | F | T | F |
| (b) | F | T | T | T |
| (c) | T | T | T | F |
| (d) | T | T | F | F |

22. Three similar T-shirts made up of the same fabric were soaked in the same amount of water. The T-shirts were then left to dry in the open under different conditions.

P- Sunny & windy weather

Q- Cloudy weather & No wind

R- Sunny weather & No Wind

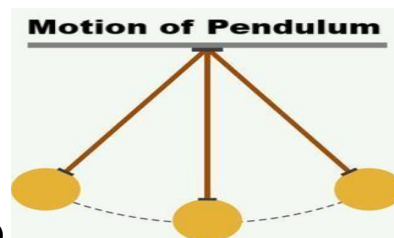
Starting with the T-shirt that will take shortest time to dry, arrange the three T-shirts in order of their rate of drying

- (a) $Q > R > P$ (b) $R > P > Q$ (c) $P > R > Q$ (d) $Q > P > R$

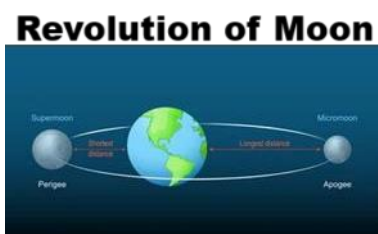
23. Which of the following statement(s) is/are correct?
 (i) To measure distances correctly, reference point must be selected first.
 (ii) Appropriate unit for measuring the thickness of a ten rupees coin is meter.
 (iii) An object in motion with respect to one person will certainly be motion with respect to another person
 (a) Only (i) (b) Only (ii) (c) (i) & (ii) only (d) All are correct.
24. Which of these is a non-renewable source of energy?
 (a) Solar energy (b) Hydro energy (c) Wind energy (d) Coal
25. Which of the following is NOT a component of the environment?
 (a) Plants (b) Animals (c) Moonlight (d) Air
26. Which of the following organisms prepare their own food through photosynthesis?
 (a) Fungi (b) Algae (c) Amoeba (d) Mushroom
27. Which of the following motions is not periodic?



(a)



(b)



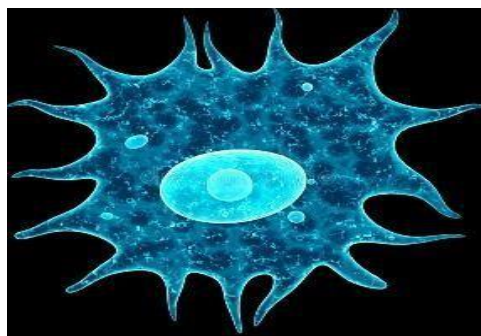
(c)



(d)

28. Light travels in:
 (a) Curved lines (b) Zigzag path (c) Straight lines (d) Spiral lines
29. Which of these is NOT a characteristic of living organisms?
 (a) Growth (b) Reproduction (c) Breathing (d) Rusting
30. Which among the following is the classical dance form of Andhra Pradesh?
 (a) Bharatanatyam (b) Odissi (c) Kathakali (d) Kuchipudi
31. The substance that helps in the combustion process is:
 (a) Nitrogen (b) Oxygen (c) Carbon dioxide (d) Helium
32. Lime stone is a
 (a) Sedimentary rock (b) Igneous rock (c) Hard rock (d) Metamorphic rock
33. Which type of friction is the least?
 (a) Static friction (b) Sliding friction (c) Rolling friction (d) Fluid friction

34. Amoeba reproduces through which process?



- (a) Budding (b) Binary fission (c) Spore formation (d) Fragmentation

35. Which one of the following processes is responsible for the green colour of leaves?

- (a) Transpiration (b) Photosynthesis (c) Respiration (d) Chlorophyll formation

36. Which of the following is the best conductor of electricity?

- (a) Sulphur (b) Copper (c) Carbon (d) Plastic

37. Which of the following is NOT a function of the skeleton?

- (a) Producing blood cells (b) Helping in movement
(c) Providing energy (d) Giving shape to the body

38. Which of the following synthetic materials is used for making non-stick cookware?



- (a) Teflon (b) Nylon (c) Polyester (d) Bakelite

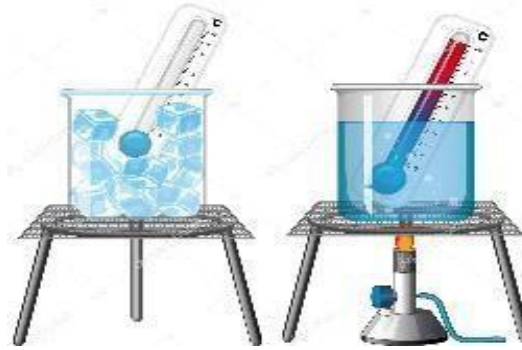
39. Which part of the skeletal system allows movement at joints?

- (a) Cartilage (b) Ligaments (c) Marrow (d) Skin

40. In an experiment, a rigid rod is placed on a support with a heavy load on one side and effort applied on the other. Identify the Simple Machine used in the experiment.

- (a) Lever (b) Wedge
(c) Pulley (d) Screw

- 41. In a thermometer, mercury rises when placed in hot water. What is the correct conclusion?**



- (a) Mercury is lighter than water
(b) Glass expands more than mercury
(c) Mercury expands on heating
(d) Glass cools quickly
- 42. A student places a solar calculator under sunlight and observes it working. What type of energy conversion is taking place?**
(a) Electrical → Light (b) Light → Chemical (c) Light → Electrical (d) Heat → Electrical
- 43. When a forest is cut down and animals migrating away. Which resource is directly affected and what is the long-term effect shown?**
(a) Soil – Increased fertility
(b) Water – Increased supply
(c) Wildlife – Loss of habitat
(d) Air – Better quality
- 44. A student pours equal amounts of water into four funnels, each containing a different type of soil: sand, clay, loam, and gravel. She observes how fast the water passes through. Which soil will allow water to pass through most quickly and why?**
(a) Clay – because it has small particles
(b) Loam – because it has organic matter
(c) Sand – because it has large particles and is porous
(d) Gravel – because it absorbs the most water
- 45. A diagram shows waves crashing onto the coast after a disturbance in the sea floor. Which natural disaster is most likely shown in the diagram?**



- (a) Tsunami (b) Earthquake (c) Cyclone (d) Flood
- 46. A student performs an experiment where they pour water onto sloped soil with and without vegetation. What is this experiment demonstrating?**
(a) Water increases plant growth.
(b) The effect of soil nutrients.
(c) Vegetation prevents soil erosion during floods.
(d) How water levels rise in drought.

47. A child slides down a playground slide. Another child applies brakes on a bicycle. Which force is involved in both actions?
(a) Gravity (b) Friction (c) Muscular (d) Electrostatic
48. Why do we see only one side of the Moon from Earth?



- (a) It rotates very fast (b) It doesn't rotate
(c) Its rotation and revolution take the same time. (d) It revolves around the Sun
49. During a solar eclipse, which object comes between the Sun and Earth?
(a) Moon (b) Mars (c) Earth (d) Jupiter
50. Which vitamin helps in maintaining healthy skin and nerves?
(a) Vitamin C (b) Vitamin B (c) Vitamin D (d) Vitamin A

ANSWER KEY

1.(b)	2. (d)	3. (b)	4. (b)	5. (a)	6. (a)	7.(c)	8. (c)	9. (b)	10. (c)
11. (a)	12. (a)	13. (c)	14. (c)	15. (a)	16. (d)	17.(a)	18. (b)	19. (b)	20. (a)
21. (b)	22. (c)	23. (a)	24. (d)	25. (c)	26.(b)	27.(d)	28. (c)	29. (d)	30. (d)
31. (b)	32. (a)	33. (c)	34. (b)	35. (d)	36. (b)	37.(c)	38. (a)	39. (b)	40. (a)
41. (c)	42. (c)	43. (c)	44. (c)	45. (a)	46. (c)	47.(b)	48. (c)	49. (a)	50. (b)