



SCHOLASTIC COUNCIL FOR ACADEMIC EXCELLENCE

The All India Scholastic Quest Olympiads

Time: 45 minutes

Scholastic Science Olympiad – Class 8

Total Marks: 40

Paper code: S-801/17

(Total 4 pages)

- When an object at infinity is reflected in a spherical mirror the image is formed _____**
a) at infinity
b) at the centre of curvature
c) between the pole and focus
d) at the focus
- An incident ray makes an angle of 25° with the surface of a plane mirror. The angle of reflection in this case will be:**
a) 65°
b) 45°
c) 25°
d) 35°
- A periscope is an instrument commonly used in submarines. It is based on the principle of:**
a) refraction of light
b) reflection of light between two parallel mirrors
c) persistence of vision
d) none of these
- Find the odd one out of the options given below (based on transparency):**
a) wood
b) iron
c) copper
d) glass
- When a car driver applies brakes, the car slows down and stops. This is caused by:**
a) reduction in the kinetic energy of the car
b) exchange of momentum between the car and the ground
c) frictional force between the tyres and the road
d) wear and tear between the tyres and the road surface
- Proper and frequent lubrication of machine parts increases the life of the machine. Hence oil or grease is applied to various joints of the machine. Give the scientific reason behind this.**
a) lubrication causes repair of the worn out parts of the machine
b) lubrication increases the hardness and toughness of machine parts
c) lubrication reduces friction which also reduces the wear and tear of machine parts
d) none of these
- Which of the following does not use the principle of magnetism?**
a) credit cards
b) speakers
c) electric motor
d) mobile phone
- A brick having a mass of 5 kg is placed on a flat surface such that the area of contact is 250 cm^2 . Find the approximate pressure exerted by the brick on the ground.**
a) 200 kg/m^2
b) 2 N/m^2
c) 2000 N/m^2
d) 2000 kg/m^2
- Pressure and area of application of force are:**
a) inversely proportional
b) directly proportional
c) equal to each other
d) unrelated

10. **Which of the following statement is incorrect?**
 a) static friction is greater than rolling friction b) sliding friction is less than rolling friction
 c) rolling friction is less than static friction d) static friction is greater than sliding friction
11. **Find the odd one from the options given below based on magnetic properties.**
 a) nickel b) iron c) cobalt d) copper
12. **Copper wires are used for domestic wiring because copper _____**
 a) has low resistance b) can be easily drawn into wires
 c) is easily available and is quite cheap d) all the above
13. **If a bar magnet is struck with a hammer. State which statement is true:**
 a) The magnet can crack into two or more parts and each part will behave like a magnet.
 b) Magnets can never be broken into parts.
 c) The magnet may crack into parts but the parts would not behave like magnets.
 d) All the above statements are false
14. **Which metals are present in the central part of the core of the Earth?**
 a) Iron and Nickel b) Iron and Magnesium
 c) Iron and Aluminium d) Magnesium and Silicon
15. **Which of the following is not a unit of pressure?**
 a) Pascal b) N/m^2 c) Dyne/cm² d) Joule
16. **Earthquakes happening in the bottom of the ocean may cause _____**
 a) high tide b) volcanoes c) tsunamis d) thunderstorms
17. **Which of the following statements is untrue?**
 a) The surface of the moon has several craters.
 b) There is no atmosphere on the moon.
 c) There is no gravitational force acting on any object on the moon.
 d) We cannot hear any sound on the moon.
18. **The nucleus of a Helium atom can also be called as _____**
 a) Beta particle b) Deuterium c) Alpha particle d) light nucleus
19. **Organelle without a cell membrane is _____**
 a) ribosome b) nucleus c) mitochondrion d) chloroplast
20. **Stainless steel is an alloy of _____**
 a) Fe, C b) Fe, Cr, C, Ni c) Fe, Cr, C, d) Fe, C, Ni
21. **A non-metal used to treat rubber in the process of vulcanisation is:**
 a) carbon b) phosphorus c) sulphur d) nitrogen
22. **The SI unit of electric current is:**
 a) Volt b) coulomb c) ampere d) Joule/second
23. **The first antibiotic called penicillin was extracted from:**
 a) a bacterium b) a protozoan c) a fungus d) an alga

24. **Pneumonia is a disease which affects the:**
 a) Heart b) liver c) kidneys d) lungs
25. **If heated, which one of these would expand to the maximum extent?**
 a) solids b) liquids c) gases d) all three
26. **The gold which is used for making jewellery is actually a mixture of _____**
 a) gold and silver b) gold and zinc c) gold and copper d) gold and nickel
27. **An element which is used in electronic equipment due to its semiconductor properties is:**
 a) silver b) copper c) sulphur d) silicon
28. **Coir is made up of which type of tissue?**
 a) Parenchyma b) Collenchyma c) Aerenchyma d) Sclerenchyma
29. **Helium has _____ electrons in its valance shell.**
 a) 0 b) 2 c) 8 d) none of these
30. **Which of the following vitamins increases the resistance against common cold?**
 a) Vitamin D b) Vitamin C c) Vitamin E d) Vitamin A
31. **Out of the options given below which metal is the best conductor of electricity**
 a) Copper b) Iron c) Silver d) Tungsten
32. **A non-metal which is stored in water is _____**
 a) C b) P c) Na d) Fe
33. **In a metallic conductor moving electrons constitute an electric current. The path of motion of electrons is:**
 a) straight line b) smooth curve c) zig-zag d) circular
34. **A plane mirror is approaching you at a speed of 5 m/s. Your image will appear to approach you at a speed of:**
 a) 5 m/s b) 2.5 m/s c) 10 m/s d) none of these
35. **Candela is a unit of _____**
 a) Power b) Electric charge c) Intensity of light d) none of these
36. **The earth's magnetic south pole is near the :**
 a) equator b) geographical south pole
 c) geographical north pole d) core of the earth
37. **Formation of a rainbow proves that _____**
 a) Light travels in a straight line.
 b) Light can pass through water.
 c) White light is made up of a combination of seven colours.
 d) None of these
38. **Which of the following does not run on electricity?**
 a) Refrigerator b) Microwave oven c) Water hand - pump d) Laptop computer

39. **What is the meaning of the term 'Deforestation'?**
a) permanent destruction of forests to clear land for other uses
b) planting and nurturing trees to increase the green cover on land
c) hunting /killing/capturing wild animals living in the forests
d) none of these
40. **Which of the following are non-renewable natural resources?**
(I) trees (II) coal (III) petroleum (IV) gold (V) wildlife
- a) I and V only b) II and IV only c) II, III, IV and V only d) II, III and IV only

..... *End*

| 8 TH Science - Paper code: S-801/17 | | | | | | | | | |
|------------------------------------------------|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| D | A | B | D | C | C | D | C | A | B |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| D | D | A | A | D | C | C | C | A | B |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| C | C | C | D | C | C | D | D | B | B |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| C | B | C | C | C | C | C | C | A | D |