

1. A concave lens always forms an image which is

- (a) real and erect
- (b) virtual and erect
- (c) real and inverted
- (d) virtual and inverted

**ANS (B)**

2. A vitamin requires cobalt for its activity. The vitamin is

- (a) Vitamin B12
- (b) Vitamin D
- (c) Vitamin B2
- (d) Vitamin A

**ANS (A)**

3. One of the constituents of tear gas is

- (a) Ethane
- (b) Ethanol
- (c) Ether
- (d) Chloropicrin

**ANS (D)**

4. The modulus of rigidity is the ration of

- (a) longitudinal stress to longitudinal strain
- (b) Volume stress to volume strain
- (c) shearing stress to shearing strain
- (d) tensile stress to tensile strain

**ANS (B)**

5. The propagation of sound waves in a gas involves

- (a) adiabatic compression and refraction
- (b) isothermal compression and rarefaction
- (c) isochoric compression and rarefaction
- (d) isobaric compression and rarefaction

**ANS (A)**

6. An stomic clock is based on transitions in

- (a) Sodium
- (b) Caesium
- (c) Magnesium
- (d) Aluminium

**ANS (B)**

7. Plasma membrane in eukaryotic celle is made up of

- (a) Phospholipid
- (b) Lipoprotein

- (c) Phospholpo-protein
- (d) Phospho-protein

**ANS (A)**

**8. Which one of the following is also called the 'power plants' of the cell ?**

- (a) Golgi body
- (b) Mitochondrion
- (c) Ribosome
- (d) Lysosome

**ANS (B)**

**9. What is the chemical name of vinegar ?**

- (a) Citric acid
- (b) Acetic acid
- (c) Pyruvic acid
- (d) Malic acid

**ANS (B)**

**10. Which of the following is not a property of heavy water ?**

- (a) Boiling point of heavy water is lower than that of, ordinary water
- (b) Density of heavy water is higher than that of ordinary water
- (c) Freezing point of heavy water is higher than that of ordinary water
- (d) It produces corrosion

**ANS (A)**

**11. In which of the following processes is energy released ?**

- (a) Respiration
- (b) Photosynthesis
- (c) Ingestion
- (d) Absorption

**ANS (A)**

**12. Animals living in the three trunks are known as**

- (a) Arboreal
- (b) Volant
- (c) Amphibious
- (d) Aquatic

**ANS (A)**

**13. In input frequency of a full wave rectifier be  $n$ , then output frequency would be**

- (a)  $n^2$
- (b)  $n$
- (c)  $3n^2$
- (d)  $2n$

**ANS (A)**

**14. Heat transfer horizontally within the atmosphere is called**

- (a) Conduction
- (b) Convection
- (c) Absorption
- (d) Advection

**ANS (D)**

**15. Noise is measured in**

- (a) Watt
- (b) REM
- (c) Centigrade
- (d) Decibel

**ANS (D)**

**16. The bats can fly in the dark because**

- (a) they can see the objects in darkness
- (b) they have weak legs and are likely to be attacked by predators
- (c) they generate flashes of light
- (d) they generate ultrasonic sound waves

**ANS (D)**

**17. What changes will happen to a bow of ice and water kept at exactly zero degree Celsius?**

- (a) All ice will melt
- (b) All water will become ice
- (c) No change will happen
- (d) Only some ice will melt.

**ANS (C)**

**18. The art and science of map making is called**

- (a) Remote Sensing
- (b) Cartography
- (c) Photogrammetry
- (d) Mapping

**ANS (B)**

**19. Silver halides are used in photographic plates because they are**

- (a) oxidised in air
- (b) soluble in hyposolution
- (c) reduced by light
- (d) totally colourless

**ANS (C)**

**20. Tetra ethyle lead (TEL) is**

- (a) a catalyst in burning fossil fuel

- (b) an antioxidant
- (c) a reductant
- (d) an antiknock compound

**ANS (D)**

**21. Curie point is the temperature at which**

- (a) Matter becomes radioactive
- (b) A metal loses magnetic properties
- (c) A metal loses conductivity
- (d) Transmutation of metal occurs.

**ANS (B)**

**22. The isotope used for the production of atomic energy is**

- (a) U-235
- (b) U-238
- (c) U-234
- (d) U-236

**ANS (A)**

**23. The acceleration due to gravity at the equator**

- (a) is less than that at the poles
- (b) is greater than that at the poles
- (c) is equal to that at the poles
- (d) does not depend on the earth's centripetal acceleration

**ANS (A)**

**24. Which of the following is not a nucleon ?**

- (a) Proton
- (b) Neutron
- (c) Electron
- (d) Positron

**ANS (D)**

**25. The material used in the manufacture of lead pencil is**

- (a) Graphite
- (b) Lead
- (c) Carbon
- (d) Mica

**ANS (A)**

**26. Angle of friction and angle of repose are**

- (a) equal to each other
- (b) not equal to each other
- (c) proportional to each other
- (d) None of the above

**ANS (A)**

**27. What happens to a person who receives the wrong type of blood?**

- (a) All the arteries constrict
- (b) All the arteries dialates
- (c) The RBCs agglutinate
- (d) The spleen and lymphnodes deteriorate

**ANS (C)**

**28. If all bullets could not be removed from gun shot injury of a man, it may cause poisoning by**

- (a) Mercury
- (b) Lead
- (c) Iron
- (d) Arsenic

**ANS (D)**

**29. Ringworm is a ..... disease.**

- (a) Bacterial
- (b) Protozoan
- (c) Viral
- (d) Fungal

**ANS (D)**

**30. Pituitary gland is situated in**

- (a) the base of the heart
- (b) the base of the brain
- (c) the neck
- (d) the abdomen

**ANS (B)**

**31. Saliva helps in the digestion of:**

- (a) Fats
- (b) Starch
- (c) Proteins
- (d) Vitamins

**ANS (B)**

**32. The longest bone in the human body is:**

- (a) Ulna
- (b) Humerus
- (c) Femur
- (d) Tibia

**ANS (C)**

**33. The time period of a pendulum when taken to the Moon would:**

- (a) remain the same

- (b) decrease
- (c) become zero
- (d) increase

**ANS (D)**

**34. The function of ball bearings in a wheel is:**

- (a) to increase friction
- (b) to convert kinetic friction into rolling friction
- (c) to convert static friction into kinetic friction
- (d) just for convenience

**ANS (B)**

**35. 'Shock-absorbers' are usually made of steel as it:**

- (a) is not brittle
- (b) has lower elasticity
- (c) has higher elasticity
- (d) has no ductile property

**ANS (C)**

**36. Which of the following could be used as fuel in propellant or rockets?**

- (a) Liquid Hydrogen + Liquid Nitrogen
- (b) Liquid Oxygen + Liquid Argon
- (c) Liquid Nitrogen + Liquid Oxygen
- (d) Liquid Hydrogen + Liquid Oxygen

**ANS (D)**

**37. The addition of gypsum to portland cement helps in:**

- (a) increasing the strength of cement
- (b) rapid setting of cement
- (c) preventing rapid setting of cement
- (d) reduction in the cost of cement

**ANS (C)**

**38. White lung disease is prevalent among the workers of:**

- (a) Paper industry
- (b) Cement industry
- (c) Cotton industry
- (d) Pesticide industry

**ANS (D)**

**39. Iodoform is used as an:**

- (a) antipyretic
- (b) analgesic
- (c) antiseptic
- (d) anaesthetic

**ANS (C)**

**40. An artificial ecosystem is represented by:**

- (a) pisciculture tank
- (b) agricultural land
- (c) zoo
- (d) aquarium

**ANS (D)**

**41. The constituents of automobile exhaust that can cause cancer is are:**

- (a) Oxides of nitrogen
- (b) Carbon monoxide
- (c) Polycyclic hydrocarbons
- (d) Lead

**ANS (D)**

**42. The optimum dissolved oxygen level (in mg/litre) required for survival of aquatic organisms is:**

- (a) 4 – 6
- (b) 2 – 4
- (c) 8 – 10
- (d) 12 – 16

**ANS (A)**

**43. The world's only floating national park is situated in:**

- (a) Manipur
- (b) Kuala Lumpur
- (c) Bilaspur
- (d) Dispur

**ANS (A)**

**44. Who invented vaccination for 'Small Pox'?**

- (a) Sir Fredrick Grant Banting
- (b) Sir Alexander Fleming
- (c) Edward Jenner
- (d) Louis Pasteur

**ANS (C)**

**45. BT seed is associated with**

- (a) Rice
- (b) Wheat
- (c) Cotton
- (d) Oil seeds

**ANS (C)**

**46. Which one of the following minerals is found in Monazite sand?**

- (a) Potassium

- (b) Uranium
- (c) Thorium
- (d) Sodium

**ANS (C)**

**47. In coriander, the useful parts are**

- (a) roots & leaves
- (b) leaves & flowers
- (c) leaves & dried fruits
- (d) flowers & dried fruits

**ANS (C)**

**48. Which plant is called Herbal Indian Doctor?**

- (a) Amla
- (b) Mango
- (c) Neem
- (d) Tulsi

**ANS (A)**

**49. The pH of human blood is**

- (a) 7.2
- (b) 7.8
- (c) 6.6
- (d) 7.4

**ANS (D)**

**50. Which amongst the following is largest endocrine gland in the body?**

- (a) Thyroid
- (b) Parathyroid
- (c) Adrenal
- (d) Pituitary

**ANS (A)**