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Time : 2.30 Hrs

Marks : 100

I Choose the best answer :**15X1=15**

- Luminous intensity is the intensity of
a) laser light b) U V light c) visible light d) IR light
- Pascal's law is used in
a) hydraulic lift b) brake system
c) pressing heavy bundles d) all the above
- The spherical mirror used as a rear view mirror in the vehicle is
a) concave mirror b) convex mirror c) plane mirror d) None of the above
- Heat is a form of
a) electrical energy b) gravitational energy c) thermal energy d) None of these
- The process of converting a liquid into a solid is called
a) sublimation b) condensation c) freezing d) deposition
- Pencil lead contains
a) graphite b) diamond c) aluminium d) sulphur
- undergoes rusting.
a) Tin b) Sodium c) Copper d) Iron
- Which of the following factor induces electrolysis?
a) Heat b) Light c) Electricity d) Catalysis
- Aerated water contains
a) air b) Oxygen c) carbon dioxide d) nitrogen
- Which of the following is known as azote?
a) Oxygen b) Nitrogen c) Sulphur d) Carbon dioxide
- shows both living and nonliving characteristics
a) Protozoa b) Virus c) Bacteria d) Fungi
- One of the following is an edible mushroom
a) Polyporus b) Agaricus c) Penicillium d) Aspergillus
- Binominal Nomenclature was first introduced in the year
a) 1970 b) 1975 c) 1978 d) 1623
- Maintenance of constant internal environment of the body is known as
a) homeostasis b) homeophytes c) homeokinesis d) homeophilics
- The process of air passing in and out the lungs is called——
a) inhalation b) exhalation c) breathing d) None of these

II Fill in the blanks:**10X1=10**

- is used to measure electric current.
- A simple barometer was first constructed by ——.
- If the angle of incidence is 45° , then the angle of reflection is ——.
- If you apply heat energy, the temperature of a system will——.
- The symbol of tungsten is——.
- is the basic material to manufacture urea.
- is called as vital life.
- are the infectious protein particles.
- The first true land plant is ——.
- The largest cell is egg of an——.

III a) Match the following:**10X1=10**

- | | | |
|------------------|---|---------------|
| 26. Conduction | - | Liquid |
| 27. Convection | - | Gas to Liquid |
| 28. Radiation | - | Solid to Gas |
| 29. Sublimation | - | Vacuum |
| 30. Condensation | - | Solid |

b) Match

- | | | |
|-------------------|---|----------------------------------|
| 31. Carbohydrates | - | CO ₂ , water and Heat |
| 32. Glucose | - | Amino Acid |
| 33. Protein | - | Glucose |
| 34. Amino Acids | - | Cholesterol and other steroid |
| 35. Fatty Acids | - | Enzymes, hormone, protein |

IV State True or False. If false correct the statement.**5X1= 5**

36. Convection is the process by which the thermal energy flows in solids.
 37. CFC is a pollutant.
 38. Chicken pox is a communicable disease.
 39. Cell wall of fungi is made up of chitin.
 40. Human beings are warm blooded in nature.

V Answer any 15 questions :**15X2=30**

41. Define -mole.
 42. Name the three scales of temperature.
 43. Define One atmosphere.
 44. Why is a ball bearing used in a cycle hub?
 45. State Snell's law of refraction.
 46. Give any two applications of a concave mirror.
 47. Name three types of heat transfer.
 48. What are the applications of conduction in our daily life?
 49. Why are bells made of metals?
 50. Can you store pickle in an aluminium utensil? Give reason.
 51. What is tarnishing? Give an example.
 52. Why photosynthesis is a chemical reaction?
 53. List out the uses of nitrogen.
 54. What is dry ice? What are its uses?
 55. What are pathogens?
 56. Write names of any three protozoans.
 57. Write any two characters of dicotyledons.
 58. Write the differences between Algae and fungi.
 59. Define-Metabolism.
 60. Name the processes by which air enters and comes out of our lungs.

VI Answer all the questions in detail :**6X5=30**

61. List out the base quantities with their units. **(OR)**
 Explain how friction can be minimized.
 62. Explain the working of a periscope. **(OR)**
 Explain the working of thermos flask.
 63. Tabulate the differences between metals and non-metals. **(OR)**
 Explain how food items are spoiled by chemical reactions?
 64. Explain the role of yeast in making cakes and buns in a bakery? **(OR)**
 What are the effects of acid rain? How can we prevent them?
 65. Write a short note on probiotics. **(OR)**
 Write the medicinal plants and explain their uses.
 66. Write any five differences between monocot and dicot plants. **(OR)**
 Draw the structure of human eye and label its parts.