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FYBSc/Semester-I/Chemistry
Subject:- Chemistry-I
Sample Questions

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Multiple Choice Questions

- Hot water taken in a beaker is an example of-----
a) open system b) closed system c) isolated system d) Thermal system
- 3000J of heat is added to a system and 2500J of work is done by the system. What is the change in internal energy of the system?
a) 5500J b) 500J c) 200J d) 100J
- Enthalpy is equal to-----
a) E-PV b) E+PV c) E/PV d) PV/E
- When principle quantum number $n=4$ then possible values for orbital quantum number (l) and magnetic quantum number(m_l) are_____.
a) 3 and 5 b) 3 and 7 c) 1 and 3 d) 2 and 5
- Which of the following statements does not form a part of Bohr's model of hydrogen atom?
a) The position and velocity of the electrons in the orbit cannot be determined simultaneously.
b) Electrons revolve in different orbits around the nucleus.
c) The electron(s) in the orbit nearest to the nucleus has the lowest energy.
d) Energy of the electrons in the orbits is quantized.
- _____ stated that no two electrons in the same atom can have the same four quantum numbers
a) Aufbau Principle b) Pauli Exclusion Principle c) Heisenberg uncertainty Principle d) Hund's rule of maximum multiplicity
- How many radial nodes does a 3d orbital have?
a) 0 b) 1 c) 3 d) 4
- What is the IUPAC name of the following compound

CH₃—CH(CH₃)₂—CH(C₂H₅)—CH₂—CH₂—CH₃

a) 4-ethyl-2,2-dimethyl hexane b) 2,2-dimethyl, 4-ethyl hexane c) 3-ethyl,5,5-dimethyl hexane d) 5,5-dimethyl 3-ethyl hexane
- Ammonia is the example of_____ hybridization.
a) SP² b) SP³ c) SP d) SP²d
- Inductive effect is caused due to difference in _____.
a) Ionization potential b) atomic size c) electronegativity d) Ionic size

