Quadrant IV – Assessment (Module –wise)

Programme: Bachelor of Science Hons. (First Year)

Subject: Zoology

Paper Code: ZOC 101

Paper Title: Diversity of Non- Chordates and Cell Biology

Unit: Cell Environment

Module Name: Water

Module No: 23

Name of the Presenter: Mr. Dipak Bowalkar

MCQ

1. Water is a _____
   a) Polar Solvent
   b) Non-Polar Solvant
   c) An amphipathic solvent
   d) Non-Polar Uncharged Solvent

2. The H-O-H bond angle in the water molecule is
   a) 104.15^{o}
   b) 104.45^{o}
   c) 105.65^{o}
   d) 105.52^{o}

3. Most important reason for the unusual property of water is
   a) The covalent bonding pattern in the water molecules.
   b) The bond angle between the two hydrogen atoms in water
   c) Hydrogen bonding between water molecules
   d) Water can be immediately ionized at room temperature

4. The substances which are soluble in water are called as
   a) Hydrophobic
   b) Hydropathic
   c) Hydrophillic
   d) Amphipathic

5. Why does water move from the roots to the leaves of plants?
   a) Water is pushed by solutes
   b) Capillary action pulls the water molecules like a chain
   c) Water is pulled by gravity
   d) Water's cohesion causes it to "pull" towards the leaves

Completion type (fill-in-the-blanks)

1. One water molecule can form _____ of hydrogen bonds
2. Boiling point of water is _____
3. The Hydrogen and oxygen in water molecule are bound together by ____bond
4. Density of water is_____ g/ml
5. The stickiness property of water to its own molecule is called_____ nature of water.

Short Answer – I (short notes - say 20 to 50 words)

1. Why water is denser than ice?
2. How high specific heat of water helps in sustaining life
3. Explain the Polar nature of water

Short Answer – II (extended – say 50 to 100 words)

1. Explain the molecular structure of water
2. Explain the Capillary action of water
3. Explain the Cohesive and Adhesive nature of water.

Matching type

Column- A	**Column - B**
Capillary action of water	Hydrophobic
Boiling Point of water	Water transport in plants
Freezing Point of water	$100^{o}C$
Non Soluble in Water	$0^{o}C$