

**SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, FEROZEPUR****ROLL No.:**

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**Total number of pages:[1]****Total number of questions:08****M.Tech|| Environment Science || 1<sup>st</sup>Sem****Remedial Course****Subject Code:ES-501****Paper ID:****(for office use)****Batch: 2004 onwards****Time allowed: 3 Hrs****Max Marks:100**

- Attempt any five questions
- All questions carry equal marks

- Q. 1. (a)What is meant by electromagnetic radiations? Discuss its characteristics.  
(b)Explain the characteristics and applications of X-Rays.
- Q. 2. (a)What do you mean by adsorption process? How will you differentiate between physical adsorption and chemical adsorption?  
(b) What is buffer solution? Discuss various types of buffer solutions.
- Q. 3. (a) Discuss biochemical and biological reactions of water.  
(b)Differentiate between genus and species.
- Q. 4. (a)What is cell-mitosis? Discuss various phases of cell-mitosis.  
(b)How wind energy can be produced? Give various applications of wind energy as a renewable source.
- Q. 5. Discuss the various phases of photosynthesis and factors which affect rate of photosynthesis.
- Q. 6. (a) Discuss the causes which are responsible for earth quake.  
(b) What are true solutions? Discuss the concept of normality and molarity of the solutions.
- Q. 7. (a) What do you mean by pH value of a solution? Discuss the role of pH value in our body fluids.  
(b) How sonar can be helpful to find the depth of a sea?
- Q. 8. Draw and explain citric acid cycle.