



ARKAJAIN
University
Jharkhand

4th Semester End Term Examination: 2021-22.

Subject : Environmental Science **Roll No:**
Course : B.TECH [ME]
Full Marks : 50 **Time : 3 Hours.**

Instructions to the Candidates:

- Read the question paper very carefully.
- Start writing from 2nd page onwards; Don't Write On The 1st Page Backside.
- Question Paper is divided into Three Parts -A, B & C.
- Part-A is containing 10 multiple choice questions. & 1 short question
- Part- B containing SIX questions out of which FOUR questions are to be answered.
- Part C containing THREE questions out of which ONE questions are to be answered.
- Do not write anything except your Roll No. on the question paper.
- Possession of **Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will come under **Unfair Means** and will **Result in the Cancellation of the Papers.**

PART - A

Multiple Choice Questions

[10x1=10]

1. The pollutant free energy resource are,
 - a. coal
 - b. petroleum
 - c. nuclear power
 - d. solar energy
2. Gas released during Bhopal gas tragedy
 - a. methyl isocyanate
 - b. sodium isothiocyanate
 - c. potassium isothiocyanate
 - d. ethyl isothiocyanate
3. Elements of environment are
 - a. Nitrogen, Carbondioxide, Oxygen
 - b. Nitrogen, Oxygen, Ozone
 - c. Carbondioxide, Oxygen, Ozone
 - d. Lithosphere, Atmosphere, Hydrosphere and Biosphere
4. The term Environment is derived from an old French word "enviro" means
 - a. Outside
 - b. Inside
 - c. Surroundings
 - d. Biotic community

5. Hydrosphere includes
 - a. Animals
 - b. Plants
 - c. Soil
 - d. Water bodies
6. Area of land, water and air where the life exists is called
 - a. Biosphere
 - b. Atmosphere
 - c. Lithosphere
 - d. Hydrosphere
7. The layers of atmosphere consists of
 - a. Troposphere, Stratosphere, Mesosphere and Thermosphere
 - b. Hydrosphere and biosphere
 - c. Lithosphere and Hydrosphere
 - d. Biosphere and Hydrosphere
8. Lowest layer of atmosphere is called
 - a. Thermosphere
 - b. Troposphere
 - c. Stratosphere
 - d. Mesosphere
9. Troposphere has altitude range of
 - a. 8 to 18 km from earth surface
 - b. 50 km from earth surface
 - c. 800 km from earth surface
 - d. 80 km from earth surface
10. The layer of atmosphere containing much of ozone gas is
 - a. Thermosphere
 - b. Troposphere
 - c. Stratosphere
 - d. Mesosphere

[2x5=10]

Short Question Answer

- a. Name the component of environment.
- b. Define decomposer.
- c. Define Sound and Noise.
- d. Define renewable and non-renewable source of energy with example.
- e. Define ecosystem.

PART - B

[4x5=20]

Answer any FOUR out of SIX

1. Explain the working of cyclone collector with its advantages and disadvantages.
2. How are BOD and COD determined in waste water? Give their significance.
3. Explain biogas production mechanism with its utilization and storage.
4. Describe the approaches and control of noise pollution.
5. Discuss various ecological pyramid of forest ecosystem.
6. Writes short notes on:

- a. Sources of soil pollution
- b. Harmful effects of Soil pollution.

PART-C

[1x10=10]

Answer any ONE out of THREE

1. What is MSW? Explain the method of disposal of MSW with appropriate diagram. Write the advantages and shortcomings of operated disposal method.
2. Write short notes on
 - i) Tertiary treatment of water
 - ii) Water pollutants with suitable examples.
3. What are the various source of noise? Classify and discuss the noise under different categories.