

BCET-301

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Odd Semester Examination, 2019-20

B. Tech: EEE (Semester: 3rd)

Energy and Environment Engineering(BCET- 301)

Time: 3:00 hrs.

Max .Marks :100

Total no. of printed pages:1

- Note : (i) All questions are compulsory.
(ii) In case of numerical problems assume data whenever not provided.

1. Attempt any four of the following

4X5=20

- (a) Define the term "energy". List various forms of energy?
- (b) Discuss the term "environmental sustainability"?
- (c) How **Energy and Environment** are related to each other? Justify.
- (d) Differentiate Commercial and Non- Commercial sources of energy.
- (e) Define (i) Thermodynamics (ii) Law of energy Conservation.
- (f) Write note on 'Indian Energy scenario.'

2. Attempt any four of the following

4X5=20

- (a) Explain solar thermal energy storage systems.
- (b) Discuss "**Photovoltaic Technology**" in detail?
- (c) Write short note on:-
 - (i) Nuclear energy (ii) Geothermal energy (iii) Natural gas
- (d) Explain tidal energy with suitable diagram.
- (e) Explain a small hydro power plant. Why it is considered as renewable source of energy?
- (f) Explain fossil fuels. What are remedies and alternatives for fossil fuels?

3. Attempt any two of the following

2x10=20

- (a) Discuss linkage between economic and environmental outcomes.
- (b) Explain about factors affecting **Economics of Energy**.
- (c) Write a detailed note on carbon footprint.

4. Attempt any two of the following

2x10=20

- (a) Define following
 - 1. Ecosystem 2. Energy Flow. 3. Ecological Pyramid. 4. Food Chains
- (b) Write a technological study on solid waste management.
- (c) Discuss about cause, effects and control measures of
 - 1. Marine Pollution. 2. Soil Pollution. 3. Noise Pollution

5. Attempt any two of the following

2x10=20

- (a) Discuss the role of government in environment protection in the context of India.
- (b) Discuss the role of NGOs in the protection of environment.
- (c) Discuss about following
 - 1. WWF 2. Greenpeace 3. IUCN