

Roll No.....
Total No. of Questions: [09]

Total No. of Printed Pages: [01]

B. Tech Civil Engg. (Semester – 3rd)
ENERGY SCIENCE & ENGINEERING
Subject Code: BCIES1302
Paper ID: [18110712]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. What do you understand by carbon foot prints?
- b. Define the objective of energy science and engineering.
- c. How do you make a building sustainable?
- d. How undersea oil pipeline projected related with the energy source?
- e. What is meant by LEED certification?
- f. Define Green building concept.
- g. List out the alternatives for the fossil fuels.
- h. Define superconductor-based energy storage system.
- i. Define term entropy.
- j. Write down the advantages of nuclear energy.

Section – B

(5 marks each)

- Q2. Explain the societal and environmental issue of place energy system.
- Q3. What do you mean by clean energy?
- Q4. Which makes sustainable development important?
- Q5. Discuss the design and construction constraints for reactor contaminated buildings.
- Q6. Differentiate between the concept of green building and green architecture.

Section – C

(10 marks each)

- Q7. What are fossil fuels and what are the different remedies and alternatives for fossil fuels? Explain in detail.
- Q8. How will you design and develop civil engineering project related with hydro power station above ground and underground? Explain various parameters in detail.
- Q9. (a) What are the different types of sustainable development?
(b) Discuss the terms energy conservation and energy audit.