



Regulation R18

Subject code:205BD

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech V Semester Supplementary Examinations, January 2023
Non-Conventional Power Generation

(EEE)

Maximum Marks: 70

20/01/23

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Total 10 questions it consists.
 4. Part-B each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Define solar power.
- 2 Write a note on total solar energy received in India.
- 3 What is flat plate collector?
- 4 What is a solar pond?
- 5 Mention two important wind turbine generator installations in India.
- 6 Which type of generator used in wind power plant?
- 7 What are the constituents of biogas
- 8 What is geothermal power?
- 9 What is OTEC open cycle
- 10 What are the applications of fuel cells?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain the renewable and non-renewable source. [10]
OR
- 12 Explain in detail the different types of solar energy measuring instruments. [10]
- 13 With the help of a neat sketch describe a solar heating system using water heating solar collectors. What are the advantages and disadvantages of this method? [10]
OR
- 14 Describe the classification of solar energy collectors. [10]
- 15 Write and explain wind power equation. [10]
OR
- 16 Analyze Aero Dynamic forces acting on the blade. [10]
- 17 Explain the classification of biogas plants. [10]
OR
- 18 Explain how electrical energy can be generated from Geo-thermal energy. [10]
- 19 Explain the components of tidal power plants. [10]
OR
- 20 Explain the working of a thermo electric generator. [10]

10/10/10