

R18

Code No: 15811

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech IV Year II Semester Examinations, July/August - 2022

ENERGY SOURCES AND APPLICATIONS

(Common to CE, ME, ECE)

Time: 3 Hours

Max.Marks:75

Answer any five questions
All questions carry equal marks

1. Write a detailed note on Environmental and climate issues arising due to energy sources [15]
2. Classify the different energy sources and write about the advantages and disadvantages of each energy source. [15]
3. Justify why worldwide only fossil fuels are used as energy sources primarily? Why is there a hesitation against renewable energy sources? [15]
- 4.a) Explain in detail about any one mechanism for harnessing energy from tides.
b) What is biomass? How can it be used as Energy Source? [8+7]
5. How Pumped Storage Hydro Power Project works? Explain with a neat diagram. [15]
6. What is a superconductor? How can the principle of superconductors be used to store energy for regeneration? [15]
7. Define clean energy. Give examples for clean energy technology. How the clean energy technologies can be used for sustainable development of a nation. [15]
8. Write in detail about the concept of green building, green architecture and green building concepts. [15]