

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 59371

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Open elective

Civil Engineering

15UEE971 - NON CONVENTIONAL ENERGY RESOURCES AND APPLICATIONS

(Common to CSE, ECE, MECH, EIE ,IT and Chemical Engineering branches)

(Regulation 2015)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Extraction of mineral and metal from the earth is: CO1- R
(a) Agriculture (b) Transportation (c) Mining (d) Sustainable development
2. The major cause for land degradation in our country is CO1- R
(a) Soil erosion (b) Pollution of soil (c) Water-logging (d) None of the above
3. Which of the following solar cookers is the most efficient and has the shortest cooking time? CO2- R
(a) Box cooker (b) Parabolic cooker
(c) Panel cooker (d) Cardboard type cooker
4. Common energy source in Indian villages is: CO2- R
(a) Electricity (b) Coal (c) Sun (d) Wood and animal dung
5. The installed capacity of wind energy in India is about CO3- R
(a) 8000 MW (b) 1500 MW (c) 6000MW (d) 4000 MW
6. Tidal energy utilizes CO3- R
(a) Kinetic energy of water (b) Potential energy of water
(c) Both (a) and (b) (d) None of these

7. Energy sources that can be continually produced and have few negative side effects are known as: CO4- R
- (a) Renewable Energy Sources (b) Nonrenewable Energy Sources
(c) No such sources exist (d) Man Made Energy Sources
8. Boiling water reactor and pressurised water reactors are: CO4- R
- (a) Nuclear reactor (b) Solar reactor (c) OTEC (d) Biogas reactor
9. As wave travels, intensity CO5- R
- (a) Increases (b) Remains same (c) Decreases (d) Varies
10. Which of the following is a disadvantage of most of the renewable energy sources? CO5-R
- (a) Highly polluting (b) High waste disposal cost
(c) Unreliable supply (d) High running cost

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Describe the various aspects of energy Conservation CO1- U (8)
12. Draw and explain the Solar heating systems with neat sketch CO2-U (8)
13. List out the types of wind energy systems and explain the their working principles with neat diagram. CO3-U (8)
14. Draw and explain the fixed dome type digester biogas plant. CO4- U (8)
15. Draw and explain the typical arrangements of small hydro power station. CO5- U (8)

