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BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DME - SIXTH SEMESTER EXAMINATION

ENERGY SOURCE & POWER PLANT ENGINEERING

Time: 3 Hours

Max.Marks: 80

PART-A

10X3=30M

- Instructions:** 1) Answer **all** questions.
2) Each question carries **three** marks.
3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

- 1) Differentiate between renewable and non-renewable sources of energy.
- 2) State the advantages and disadvantages of solar energy.
- 3) Classify the wind mills.
- 4) List out any three types of fuel cells.
- 5) What is a biogas ? State any two applications of biogas.
- 6) What is a Tide and how they are formed.
- 7) List out the basic elements of steam power plant.
- 8) State the applications of PWR - Power plant.
- 9) Explain nuclear fission reaction.
- 10) Define Environment pollution.

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[Contd...]

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PART-B

5X10=50M

Instructions: 1) Answer any **five** questions
2) Each question carries **ten** marks
3) Answer should be comprehensive and the criteria for valuation is the content but not the length of the answer.

- 11) Explain the following with neat sketches.
a) solar still b) Solar dryer
- 12) Describe the construction and working of a vertical axis windmill with a neat sketch.
- 13) a) What is a fuel cell?
b) List out the different types fuel cells and explain anyone of it.
- 14) Explain the fixed dome digester with a neat sketch.
- 15) Draw and explain the single basin tidal system.
- 16) Describe the coal handling system with flow diagram.
- 17) Explain steam power plant with a neat sketch.
- 18) Describe the adverse effects of pollutants on men, material, animal and plants.

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