

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

May-26-0411

EE-703 (Non-Conventional Electrical Power Generation)
B.Tech. 7th (CBCS)

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, select one question each from section A, B, C & D. Section E (Question-9) is compulsory. Use of non-programmable calculator is allowed.

SECTION - A

1. With the help of pie chart, discuss the energy scenario for India and world. (10)
2. (a) What do you mean by commercial and non-commercial energy sources? Give some example. (5)
(b) What are the advantages of renewable sources of energy? (5)

SECTION - B

3. What are the various advantages and disadvantages of WEC system? (10)
4. What are the applications of solar energy? Explain briefly. (10)

SECTION - C

5. What are various biomass conversion technologies? Explain. (10)
6. Write down the merits and demerits of geothermal energy generation. (10)

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SECTION - D

7. (a) Explain the basic principle of tidal system. (5)
(b) Explain an ocean thermal energy conversion plant with the help of flow diagram. (5)
8. How are small hydropower stations classified? Mention the site selection criteria also. (10)

SECTION - E (Compulsory)

9. (a) Name the various types of solar thermal power plants.
(b) What do you mean by wave energy?
(c) What is biomass energy?
(d) What is an ocean thermal energy?
(e) Write the name of various non-conventional energy sources.
(f) Define solar radiation.
(g) What do you mean by Photosynthesis?
(h) What do you understand by flat plate collector?
(i) Write down the advantages of wind energy generation.
(j) What are mini hydro power plants? (10×2=20)