

**PCB3EJ1 - Conventional and Non-Conventional Renewable Energy Systems**

P. Pages : 1

Time : Three Hours



**GUG/W/23/10705**

Max. Marks : 70

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- Notes : 1. Attempt **any five** questions.  
2. All questions carry equal marks.

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|-----|---|----|
| 1.  | What are the different forms of energy? Discuss renewable and conventional form of energy.          | 14 |
| 2.  | Explain the rule and importance of site selection and prime movers of steam power station.          | 14 |
| 3.  | Discuss prime movers and operating cost for hydro power stations.                                   | 14 |
| 4.  | Explain fission and fusion technology fundamentals of nuclear power stations.                       | 14 |
| 5.  | Describe how hydrogen can be used as an alternative fuel for motor vehicles.                        | 14 |
| 6.  | Explain scope of solar energy as a major non- conventional energy source.                           | 14 |
| 7.  | Discuss in detail characteristics of bio-mass and its conversion process.                           | 14 |
| 8.  | What is ocean thermal gradient how ocean thermal energy is used to generate electricity?            | 14 |
| 9.  | Sketch and explain the working of floating gas holder type biogas plant used in India (KVIC plant). | 14 |
| 10. | Write a short note on <b>any two</b> .  | 14 |
|     | a) Geothermal energy.   |    |
|     | b) Surge tank and penstock.   |    |
|     | c) Tidal and wave energy.   |    |
|     | d) Principles of solar energy in India.   |    |

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