

- N. B. :** (1) Question no 1 is compulsory.
 (2) Attempt any three from the remaining questions.
 (3) Figures to right indicate full marks.

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| 1. | (a) Explain plant capacity factor and plant use factor | 5 |
| | (b) Explain the francis turbine used in hydro power plant | 5 |
| | (c) Explain Rankine cycle. | 5 |
| | (d) Explain radioactive decay and half life. | 5 |
| 2. | (a) What are the different types of electric tariff? Explain any four in detail. | 10 |
| | (b) With the neat diagram explain Ash handling plant in thermal power plant. | 10 |
| 3. | (a) Explain the working of PV cells with the neat diagram. | 10 |
| | (b) What are the different points to be considered while selecting the boiler? | 10 |
| 4. | (a) State and explain in brief classification of Hydro Electric Power Plant | 10 |
| | (b) Explain working of liquid metal fast breeder reactor with diagram. | 10 |
| 5. | (a) Draw and explain the general layout of diesel power plant. | 10 |
| | (b) Explain fluidized bed combustion process. | 10 |
| 6. | (a) What is solar pond? Explain solar pond electric power plant. | 10 |
| | (b) Write a short note on MHD. | 10 |