

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

June, 2018

00693

BME-058 : POWER PLANT ENGINEERING

Time : 2 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. (a) Discuss the socio-economic development of the country due to gas turbine power plants. 5
(b) Differentiate between the open and closed cycle of gas turbine plant. 5
2. Discuss the various components of Hydro-electric power plant. Also explain the advantages and disadvantages over other power plants. 10
3. (a) Discuss the different mountings of boilers with the help of neat diagram. 5
(b) What are the various performance parameter of boilers ? Explain briefly. 5
4. Write the application of Rankine Cycle. Also draw the P-V diagram for different processes and derive the expression of efficiency. 10

5. Discuss the various components of Geo-thermal power plant. Also explain the functions of each component with the help of neat diagram. 10
6. (a) State the functions of Steam Condenser in Steam power plant. 5
- (b) Explain the working principle of Reactor in Nuclear power plant. 5
7. Discuss the various components involved in Nuclear power plant. Explain each component briefly. 10
8. Describe the various components involved in Wind power plant. Also explain each component briefly. 10
9. Write short notes on any **two** of the following : $2 \times 5 = 10$
- (a) Diesel Power Plant
- (b) Gas Turbine Plant
- (c) Governing of Steam Turbine
-