

No. of Printed Pages : 3

BME-058**DIPLOMA IN MECHANICAL
ENGINEERING (DME)****Term-End Examination****December, 2019****BME-058 : POWER PLANT ENGINEERING***Time : 2 Hours**Maximum Marks : 70*

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

1. (a) What is the purpose of surge tank in a hydroelectric power plant? 3
- (b) With the help of neat diagram, explain the working principle of fluidized bed boiler. 7
2. (a) What is the difference between overfeed and underfeed strokes? 3
- (b) What are the different types of mills used for pulverizing the coal? Briefly explain. 7
3. (a) What do you understand by moderation? 2

- (b) Differentiate between closed cycle and open cycle gas turbine power plant. 8
4. (a) What are the advantages and disadvantages of bin system of pulverized fuel firing ? 5
- (b) Discuss the functions of condensers in thermal power plants maintained under vacuum. 5
5. (a) Briefly describe the economics of selection of power plant. 5
- (b) What are the different methods for calculating the depreciation cost ? Explain briefly. 5
6. (a) Enumerate different types of loads. What is the significance of load curves ? 5
- (b) What is cavitation ? How can it be avoided ? 5
7. (a) What are the different types of gas turbine combustion chambers ? Explain any *one* in brief. 5

[3]

- (b) With the help of line diagram, explain the layout of diesel power plant. 5.
8. (a) What are the functions of draft tube ? 2
- (b) What are the different types of draft tube ? 2
- (c) With the help of a neat sketch, explain the functions of surge tank. 6
9. Write short notes on any *two* of the following :

$2 \times 5 = 10$

- (a) La Mont boiler
- (b) Bension boiler
- (c) Cooling tower