PVP 14

Code: ME8T1

IV B.Tech - II Semester - Regular Examinations - March 2018

POWER PLANT ENGINEERING
(MECHANICAL ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) Define principle of Overfeed coal firing.
b) Name two underfeed stokers.
c) What are the applications of Gas turbine plant?
d) State two advantages of diesel power plants over steam power plants.
e) What is the purpose of draft tube in the hydroelectric plant?
f) Name different components of Nuclear reactor.
g) Moderator is not required in breeder reactors. Justify the statement.
h) List two methods used for measuring the smoke and dust.
i) List two methods which are commonly used for measuring the nuclear radiation.
j) Define load duration curve.
k) Define connected load and diversity factor.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks. 3 x 16 = 48 M

2.a) Illuminate the working of Hydraulic ash handling system with Diagram. 8 M

b) Describe the working principle of Spreader stoker fuel firing system with diagram. 8 M

3. Explain different methods of fuel injection systems used in diesel plants. Which method is mostly used? Justify. 16 M

4.a) Explain how hydroelectric power plants are classified? Explain each classification. 8 M

b) What is a moderator in nuclear reaction? Explain the desirable properties of good moderator. 8 M

5. Explain coordination of hydroelectric and nuclear power stations. 16 M

6.a) What do you understand by thermal pollution? What are the bad effects of thermal pollution? 8 M

b) Explain different methods adopted to control the nuclear pollution. 8 M