

Total No. of Printed Pages:2

SUBJECT CODE NO:- H-451
FACULTY OF SCIENCE AND TECHNOLOGY
B.E. (Mechanical)
Elective-I: Power Plant Engineering
(REVISED)

[Time: Three Hours]

[Max. Marks: 80]

Please check whether you have got the right question paper.

N.B

- 1) Solve any two questions from each section.
- 2) Figures to the right indicate full marks.
- 3) Q.1 and Q.6 are compulsory.
- 4) Assume suitable data, if necessary.

Section A

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| Q.1 | a) Explain in detail effect of variable loading on a power plant. | 06 |
| | b) Explain coordination of power from different sources. | 06 |
| Q.2 | a) Explain in detail dry system and wet system of ash disposal. | 07 |
| | b) Explain the factors considered for site selection of a thermal power plant. | 07 |
| Q.3 | a) Explain in detail types of engines used in diesel power plant. | 07 |
| | b) Explain in detail layout of low capacity diesel power plant. | 07 |
| Q.4 | a) Elaborate ash handling and dust collection system in thermal plants. | 07 |
| | b) Explain in detail two lubrication systems used in diesel engines. | 07 |
| Q.5 | Write short notes on. | |
| | a) Super charging of diesel engine. | 05 |
| | b) Over feed stokers. | 05 |
| | c) Cooling system for diesel engines. | 04 |

Section B

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|-----|--|----|
| Q.6 | a) Explain in detail performance and operational characteristics of power plant. | 06 |
| | b) Explain a Dam and different types of dam. | 06 |
| Q.7 | a) Explain in detail working principle of PWR reactor. | 07 |
| | b) Explain general components of nuclear reactor. | 07 |
| Q.8 | a) Explain in detail four different types of spillways with neat sketches. | 07 |
| | b) Explain surge tank and different types of surge tanks. | 07 |
| Q.9 | a) Explain in detail Sodium Graphite Reactor. | 07 |
| | b) Explain in detail gas cooled reactor. | 07 |

Q.10

Write short notes.

- a) Hydrograph.
- b) CANDU reactor.
- c) Storage and Pondage.

05
05
04