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C14-M-504

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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2021

DME - FIFTH SEMESTER EXAMINATION

HEAT POWER ENGINEERING - II

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define dryness fraction.
2. Write short note on Calorimeter.
3. What is the function of Boiler?
- * 4. List all the boiler mountings.
5. What are the types of Nozzles?
6. Define the term Nozzle.
7. Define Steam turbine.
8. Explain the working principle of Steam turbine.
9. Define Steam condenser.
10. Write the classifications of steam condenser.

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Write short notes on the following :
 - (a) Wet steam
 - (b) Dry steam
 - (c) Super-heated steam
12. Explain the working of Cochran boiler with a neat sketch.
13. Explain any two boiler mountings with neat sketches.
14. List various types of Steam Nozzles and explain one of them briefly.
15. (a) Write an expression for velocity of steam at exit of nozzle and state each term in it.
(b) Differentiate between Jet condenser and Surface condenser.
16. Explain the working principle of De-Laval turbine with a neat sketch.
17. Explain any one method of governing of steam turbine with appropriate diagram.
18. Explain the working of Evaporative condenser with a neat sketch.

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