759 Register No.:

November 2022

Time – Three hours
(Maximum Marks: 100)

[N.B. 1. Answer all questions under Part-A each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B each question carries 14 marks.]

PART – A

1. What are the advantages of super heated steam?
2. Define: Dryness fraction.
3. State the advantages of high pressure boilers.
4. Distinguish between boiler mountings and accessories.
5. Write the advantages and disadvantages of thermal power plants.
6. What is the necessity of compounding?
7. Define chain reaction.
8. State the demerits of nuclear power plant.
9. What are the uses of compressed air?
10. What are the uses of gas turbines?

[Turn over.....

PART – B

11. (a) Explain the process of steam generation with graph connecting temperature and heat added to convert one kg of water to super heated steam.

(Or)

(b) Draw a neat sketch of a separating and throttling calorimeter and explain how you can find the dryness fraction of steam.

12. (a) Describe with neat sketch the working of Lamont boiler.

(Or)

(b) Explain the working of a water level indicator with neat sketch. Where it is located in a boiler?

13. (a) With a line sketch explain the working of a modern steam power plant.

(Or)

(b) Describe briefly with a neat sketch the velocity compounding in a steam turbine.

14. (a) Describe the pressurized water reactor with neat sketch and state the merits and demerits.

(Or)

(b) Explain the working of nuclear power plant with a layout diagram.

15. (a) Explain the working of multistage air compressor with neat sketch. State its merits and demerits.

(Or)

(b) Explain the working of a ramjet engine with a neat sketch. State its advantages and disadvantages.
