309	Register No.:	
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## April 2024

## <u>Time - Three hours</u> (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. Classify substations.
- 2. State the different types of connection schemes of distribution system.
- 3. Mention any one application area of group drive system.
- 4. What are the features of good braking system?
- 5. Define Average speed.
- 6. State the types of Traction Systems.
- 7. What is Flood Lighting?
- 8. Write the precautions in erecting lighting installations.
- 9. What is infrared heating?
- 10. List the types of radiation welding.

[Turn over.....

## PART - B

11. (a) Discuss the different types of bus bar arrangements.

(Or

- (b) Explain three phase, four wire star connected unbalanced load circuit.
- 12. (a) Explain the different types of electric drives used in industrial loads.

(Or)

- (b) Explain the necessary Mechanical characteristics needed for the selection of motor.
- 13. (a) Write short notes on Booster transformer connection in Electric Traction and Neutral sectioning.

(Or)

- (b) Explain about the Magnetic Levitation.
- 14. (a) Explain with a sketch the working of High pressure mercury vapour lamp.

(Or)

- (b) Define: (i) MSCP (ii) MHSCP (iii) Space height ratio (iv) Utilisation factor (v) Solids angle (vi) Beam factor (vii) Glare lamp efficiency.
- 15. (a) Explain dielectric heating with a sketch. State its applications.

(Or)

(b) Draw and explain direct and indirect arc furnaces with suitable sketches.

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