

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain the line diagram of a good electric traction system.
- Q.4 Discuss in detail the important components in electric traction system.
- Q.5 Discuss the electric drives & their advantages.
- Q.6 Explain starting the plant when coach is running and generator is generating.
- Q.7 Explain the types of electric braking.

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Roll No.

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6th Sem. / ELECT

Subject : Modern Electrical Traction System

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) Advantages of electrical traction system.
- b) Define coefficient of utilization.
- c) Define plugging.
- d) Functions of fly wheel.
- e) Define traction motor.
- f) SEC stands for.
- g) Advantages of DC supply.
- h) Which electric supply is used in traction system

(40)

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- i) Name the types of traction system.
- j) Name the technology / service to locate location.
- k) Name the electric drive for electric train.
- l) What is voltages regulator?
- m) Expand RCC concerned with traction sub-station.
- n) What is rheostatic Braking?
- o) What is stroboscopic effect?
- p) Define silicon blocker rectifier.
- q) Advantages of electric braking.
- r) Define polygon OHE.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) What is speed time curve?

(2)

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- ii) Advantages of pantograph.
- iii) Comparison between AC & DC motor.
- iv) What is the need of electric braking?
- v) Precautions to be taken in electric trains.
- vi) Write about major control posts.
- vii) What is cogging of motor?
- viii) Write the characteristics of different mechanical loads.
- ix) Limitations of squirrel cage induction motors.
- x) Define electric braking?
- xi) Discuss the electric traction.
- xii) Which motor is suitable for electric traction?
- xiii) Explain the role of fractional kilo watt motors.
- xiv) Characteristics of drive for locomotive.
- xv) What is regenerative braking? Give examples.

(3)

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