

EVENING

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[Total No. of Questions: 09]

[Total No. of Pages: 01.]

Uni. Roll No.

Program: B.Tech. (Batch 2018 onward)
Semester: 4th
Name of Subject: Transportation Engineering
Subject Code: PCCE-108
Paper ID: 16179
Scientific calculator is Allowed.

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

1. Parts A and B are compulsory
2. Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
3. Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

1.

- a. How transportation shapes the economy of a country.
- b. What are the factors which help in formation of rail corrugation?
- c. Define Main Taxiway and Exit Taxiway.
- d. Define Mass Rapid Transit System.
- e. How roads are classified as per Third Road Development Plan?
- f. How airports are classified based upon their runway length?

Part – B

[Marks: 04 each]

2. Briefly describe various road patterns with neat sketches.
3. What are planning surveys? How traffic studies and engineering studies are significant for various planning surveys?
4. What is wind rose diagram? Explain the methods to draw the wind rose diagrams.
5. Discuss the factors on which sleeper density depends. Determine the number of sleepers required for the construction of a 640 m long BG railway track, ensuring a sleeper density of $(N+7)$.
6. How the runway orientation is decided?
7. What are the various infrastructure facilities that are built to handle multi-modal transport system?

Part – C

[Marks: 12 each]

8. What are the various factors that influence the choice of the gauge in a country? Also, describe the problems caused by change of gauge.

OR

Explain the procedure of laying down the cement concrete pavements.

9. What is runway length? List and explain various factors on which runway length depends.

OR

What is creep? Explain the various theories for development of creep.
