

Roll No.

Total Pages : 2

BT-8/D-19

38221

RAILWAY AND AIRPORT ENGINEERING

Paper : CE-404-N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *five* questions in all, selecting at least *one* question from each unit.

UNIT-I

1. (a) Discuss the various types of Rail Sections with sketches. 7½
(b) What do you understand by Creep of Rails ? How is it caused ? Discuss various preventive measures also. 7½

2. How are sleepers classified as per the material used for their construction ? Describe concrete sleepers and steel sleepers with sketches. Also discuss their relative advantages and disadvantages. 15

UNIT-II

3. (a) Discuss the various types of Switches with sketches. 7½
(b) What do you understand by Heel divergence switch angle and Throw of a switch ? 7½

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4. Discuss the various objects of Signalling. Distinguish between the following types of singals :
(a) Semaphore Signal.
(b) Warner Signals. 15

UNIT-III

5. Describe the following :
(a) Gradients and Grade compensation on curves. 7½
(b) Tractive resistances and Hauling capacity of a locomotive. 7½

6. (a) Discuss the various types of Marshalling yards and their functions. 7½
(b) Write a short note on Maintenance of Railway Track. 7½

UNIT-IV

7. Sketch a layout plan of an airport showing its basic elements i.e., Terminal Building Apron, Two intersecting runways, Taxi ways and Hanger. 15

8. What do you understand by 'Basic Runway Length' ? How is Basic Runway length determined from the performance characteristics of the Aircraft using the Airport ? 15

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