

ROLL No:

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Total number of pages:[2]

Total number of questions:06

B.Tech. || CE || 8th Sem

Transportation Engg -II

Subject Code:BTCE-804

Paper ID:

Time allowed: 3 Hrs

Max Marks: 60

Important Instructions:

- All questions are compulsory
- Assume any missing data

PART A (2×10)

Q. 1. Short-Answer Questions:

All COs

- (a) What are the different types of rails?
- (b) Why the uniformity of gauges desirable in any country.
- (c) Explain the functions of fish-plates and fish bolts.
- (d) What do you understand by gradient? Define ruling gradient.
- (e) What are the functions of points and crossing in railway track layout?
- (f) What is meant by level crossing?
- (g) What are the objects of signalling?
- (h) What are the various factors which you would keep in view while selecting a suitable site for an airport.
- (i) What is a wind rose diagram?
- (j) Draw the neat sketches of the various markings on taxiways.

PART B (8×5)

Q. 2. A 6 degree curve branches off from a 3 degree main curve in an opposite direction in the layout of a B.G. track. If the speed on the branch line is limited to 35.5 kmph. Determine the speed restrictions on the main line. CO1

OR

What are the possible causes of creep? What are the effects of creep? Explain various preventive and remedial measures that can be taken.

Q. 3. Draw a neat diagram of simple right hand or left hand turnout and show its various component parts. Explain the working principle of the turnout. CO2

OR

Explain the constituents of crossing on railways with diagram.

Q. 4. How are signals classified? Explain with the neat sketches the working of Warner signals. CO3

OR

Explain briefly the different types of station yards..With the aid of neat sketches, explain the functioning and types of a marshalling yard.

- Q. 5. Design an exit taxiway joining a runway and a parallel main taxiway. The total angle of turn is 30 degree and the turn off speed is 80 kmph. Draw a neat sketch and show therein all the design elements. CO4

OR

What do you understand by the term basic runway length? Explain the procedure of determining the actual runway length required at a particular site.

- Q. 6. Write short notes on CO5
- a) Runway and taxiway shoulder marking
 - b) Wind direction and Landing director indicator

OR

What do you understand by the term visual aid in connection with airport? Name the different visual aids. What is the necessity of visual aids?