

Code No: R05320106

R05**Set No. 2**

III B.Tech II Semester Examinations, December 2010
TRANSPORTATION ENGINEERING
Civil Engineering

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the necessity of providing airport lighting system in an airport.
 (b) Explain about the guidance provided to the pilot during landing with a neat sketch. [8+8]
2. (a) The speeds of overtaking and overtaken vehicles are 80 and 60 Km/h respectively. If the acceleration of the overtaking vehicle is 2.5 Km/h per second, calculate the safe passing sight distance for
 i. one way traffic
 ii. two way traffic
 (b) Enumerate the various design factors controlling the vertical alignment of highways. [12+4]
3. An isolated signal with pedestrian indication is to be installed on a right angled intersection with road A of 14 m wide and road B of 10m wide. The heaviest volume per hour of each lane of road A and Road B are 250 and 200 respectively. The approach speeds are 60 and 45 km/h for A and road B respectively. Design the timings of traffic and pedestrian signals. [16]
4. Give detailed classification of track defects with respect to the following:
 (a) Curved Tracks
 (b) Crossings and turnouts
 (c) Straight track. [8+4+4]
5. (a) Explain the necessity and objectives of highway planning?
 (b) Explain obligatory points. With sketches, discuss how these control the alignment. [6+10]
6. What are the various types of traffic Islands used? Explain the uses of each. [16]
7. (a) Explain different vehicular characteristics which affect the road design.
 (b) Explain 85th percentile speed, thirtieth highest hourly volume [10+6]
8. (a) Determine the length of the vertical curve between two gradients meeting in a summit, one rising at the rate of 1 in 120 and other falling at the rate of 1 in 150.
 (b) Write about maximum super elevation for different gauges laid by Indian railways. [8+8]

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FIRSTRANKER

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R05**Set No. 4**

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TRANSPORTATION ENGINEERING
Civil Engineering

Time: 3 hours**Max Marks: 80**

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1. (a) Explain the necessity of providing airport lighting system in an airport.
 (b) Explain about the guidance provided to the pilot during landing with a neat sketch. [8+8]
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 (b) Enumerate the various design factors controlling the vertical alignment of highways. [12+4]
6. (a) Explain different vehicular characteristics which affect the road design.
 (b) Explain 85th percentile speed, thirtieth highest hourly volume [10+6]
7. What are the various types of traffic Islands used? Explain the uses of each. [16]
8. Give detailed classification of track defects with respect to the following:
 - (a) Curved Tracks
 - (b) Crossings and turnouts

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(c) Straight track.

[8+4+4]

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R05**Set No. 1**

III B.Tech II Semester Examinations, December 2010
TRANSPORTATION ENGINEERING
Civil Engineering

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
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1. An isolated signal with pedestrians indication is to be installed on a right angled intersection with road A of 14 m wide and road B of 10m wide. The heaviest volume per hour of each lane of road A and Road B are 250 and 200 respectively. The approach speeds are 60 and 45 kmph for A and road B respectively. Design the timings of traffic and pedestrian signals. [16]
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 (b) Write about maximum super elevation for different gauges laid by Indian railways. [8+8]
7. (a) Explain different vehicular characteristics which affect the road design.
 (b) Explain 85th percentile speed, thirtieth highest hourly volume [10+6]
8. Give detailed classification of track defects with respect to the following:
 - (a) Curved Tracks
 - (b) Crossings and turnouts

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(c) Straight track.

[8+4+4]

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R05**Set No. 3**

III B.Tech II Semester Examinations, December 2010
TRANSPORTATION ENGINEERING
Civil Engineering

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the necessity and objectives of highway planning?
 (b) Explain obligatory points. With sketches, discuss how these control the alignment. [6+10]
2. Give detailed classification of track defects with respect to the following:
 (a) Curved Tracks
 (b) Crossings and turnouts
 (c) Straight track. [8+4+4]
3. (a) Explain the necessity of providing airport lighting system in an airport.
 (b) Explain about the guidance provided to the pilot during landing with a neat sketch. [8+8]
4. (a) Determine the length of the vertical curve between two gradients meeting in a summit, one rising at the rate of 1 in 120 and other falling at the rate of 1 in 150.
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