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Roll No. :

320750(20)

B. E. (Seventh Semester) Examination, April-May 2021

(New Scheme)

(Civil Engg. Branch)

TRAFFIC ENGINEERING

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

***Note : Part (a) from each question is compulsory.
Attempt any two parts from (b), (c) and (d)
of each question.***

Unit-I

1. (a) Mention any four main objects of traffic engineering. 2

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- (b) Discuss various problems which the people face due to mixed traffic in developing country like India. 7
- (c) Explain the concept of PCU, describe the factors affecting PCU value. 7
- (d) Write short note on :
- (i) Growth of Traffic
- (ii) Function of Traffic 7

Unit-II

2. (a) Enoscope is used to find :
- (i) Average speed
- (ii) Spot speed
- (iii) Space - mean speed
- (iv) Time - mean speed 2
- (b) Enlist various road user characteristics. Show their relation with traffic operations. 7
- (c) Briefly explain object of a accident studies and also write the various step involved in traffic accident studies. 7
- (d) Write short note on :
- (i) Average speed

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- (ii) Spot speed
- (iii) Space - mean speed
- (iv) Time - mean speed 7

Unit-III

3. (a) The most efficient traffic signal system it :
- (i) Simultaneous system
- (ii) Alternate system
- (iii) Flexible progressive system
- (iv) Simple progressive system 2
- (b) Explain traffic signal with sketch. 7
- (c) Write a note on road marking and explain various type of traffic marking. 7
- (d) List out the different traffic Island and explain about rotary Island in detail. 7

Unit-IV

4. (a) The most economical lighting layout which is suitable for narrow roads is :
- (i) Single side lighting
- (ii) Staggered system

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- (iii) Central lighting system
- (iv) None of the above 2
- (b) Explain the effect of road condition and road geometrics on traffic safety. 7
- (c) Explain the steps involved in analysis of traffic accidents. 7
- (d) Write a detail note on investigation of accident. 7

Unit-V

5. (a) Noise limit in U. K. in 1970 for motor cycle more than 50 c.c. but not more than 125 c. c. is :
- (i) 77
 - (ii) 82
 - (iii) 86
 - (iv) 84 2
- (b) Discuss the detrimental effects of traffic on the environmental. 7
- (c) Explain various types of vibration induced in the sourrounding by a vehicle moving on a road surface. How can we minimize the effects of vibrations? 7
- (d) What do you understand by EIA? Explain benefits of EIA. 7