

Code No: RT31015

R13**SET - 1****III B. Tech I Semester Supplementary Examinations, October/November - 2018****TRANSPORTATION ENGINEERING – I**

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
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PART -A

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|---|----|--|------|
| 1 | a) | What are urban roads? How are they classified? | [3M] |
| | b) | Write about horizontal transition curves? | [4M] |
| | c) | What are the factors affecting LOS? | [4M] |
| | d) | Compare various abrasion tests of aggregate. | [3M] |
| | e) | Write about wheel load stresses of rigid pavement. | [4M] |
| | f) | List various types of highway construction. | [4M] |

PART -B

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|---|----|--|------|
| 2 | a) | Define Arterial, Sub-Arterial, collector & local streets? | [3M] |
| | b) | Give list of drawings to be submitted for highway alignment. Explain. | [8M] |
| | c) | What are various engineering surveys for highway alignment? | [5M] |
| 3 | a) | What are the steps involved to design super elevation? | [8M] |
| | b) | What is i) Kerb ii) Road Margin iii) Width of roadway iv) Right of way | [8M] |
| 4 | a) | How the traffic volume survey results are presented? | [8M] |
| | b) | Write about the causes of preventive measures of accidents. | [8M] |
| 5 | a) | List about tests in bitumen. Write about any two tests. | [8M] |
| | b) | Write about desirable properties aggregate. | [8M] |
| 6 | a) | Describe various functions of different components of flexible pavement. | [8M] |
| | b) | Determine spacing of contraction joints of 6.5 cm thick slab having 30 cm thickness and $f=1.5$ for the following cases.
i) For plain cement concrete, allowable $Sc=0.6 \text{ kg/cm}^2$
ii) For reinforced cement concrete, 1cm diameter bars at 0.3 m spacing | [8M] |
| 7 | a) | Discuss the various failures of flexible pavement. | [8M] |
| | b) | Write about various processes of pavement evaluation. | [8M] |

