Code No: R1631015 **R16** SET - 1

III B. Tech I Semester Supplementary Examinations, October/November - 2020

TRANSPORTATION ENGINEERING – II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B)**
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A (14 Marks)

1. a) Write down the definition of a gauge of a railway track. [2M]
   b) Explain the reasons for train derailments. [2M]
   c) Draw a neat sketch of the line diagram of the fixed heel type switch. [2M]
   d) Write a short note on Threshold marking. [3M]
   e) Explain how airport pavements are damaged due to frost action. [3M]
   f) Describe briefly about light houses. [2M]

PART –B (56 Marks)

2. a) Explain briefly about the requirements of an ideal permanent way. [7M]
   b) Describe the sleeper density and spacing of sleepers. [7M]

3. a) Evaluate different types of gradients used in railway tracks. [7M]
   b) What would be the permissible speed on the curve? If on an 8^0 M.G. track, the average speed of different trains is 50 kmph and allowable cant deficiency is half that of maximum cant deficiency. [7M]

4. a) Explain briefly about the requirements and characteristics of the good crossing. [7M]
   b) Write down the classification of signals? Explain them. [7M]

5. a) Enumerate the factors affecting site selection for an airport. [7M]
   b) Draw a neat sketch showing typical details of a boundary of inner horizontal surfaces in an airport and explain. [7M]

6. a) What are the main functions of airport pavements? Explain. [7M]
   b) Write the possible repairs to treat deformations of asphalt airport pavement layers. [7M]

7. a) Write down the classification, advantages and disadvantages of parts. [7M]
   b) Write a short note on dredging. [7M]

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