

**III B. Tech II Semester Supplementary Examinations, November - 2018****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. Answering the question in **Part-A** is compulsory  
 3. Answer any **THREE** Questions from **Part-B**

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**PART -A**

- 1 a) List out the various gauges prevailing in India with their gauge widths. What are the factors governing the selection of suitable gauge? [4M]
- b) Outline the essential objectives of the various surveys that need to be undertaken for the construction of a new railway line. [4M]
- c) What are the various Aircraft characteristics considered for Airport planning? [4M]
- d) Explain the factors which effect the location of exit taxiway? [4M]
- e) What are the requirements of harbours? [3M]
- f) What is the purpose of dolphins in harbours? [3M]

**PART -B**

- 2 a) Draw neat labeled cross section of a single line and double line broad gauge track in embankment on straight path. [8M]
- b) Explain various theories of creep of rails. [8M]
- 3 a) What is conning of wheel and tilting of rails. Explain the behaviour of a coned wheel on curved track. [8M]
- b) What is meant by crossing? Discuss the various types of crossings. [8M]
- 4 a) Draw a neat diagram of an airport terminal and discuss the purpose of each component. [8M]
- b) What do you mean by basic runway length? Explain the procedure for determining the actual runway length required at a particular site. [8M]
- 5 a) Draw a neat sketch to show how lighting is done on a runway. What are the advantages of narrow gauge of lighting pattern? [8M]
- b) Discuss briefly the methods adopted for design airfield pavements. [8M]
- 6 a) What are the requirements of good ports? Discuss the function of each component of harbour. [8M]
- b) Explain the different types of temporary breakwaters with neat sketches. [8M]
- 7 a) What is a transit shed? List the important factors influencing the size of transit shed? [8M]
- b) Suggest the remedies to reduce siltation and erosion in harbour layout. [8M]

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