Code: 13A01703

R13

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2018

TRANSPORTATION ENGINEERING - II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) Give the classification of sleepers.

(b) Draw a neat diagram of fish plate.

(c) What is grade compensation?

(d) Explain the term cant deficiency.

(e) How does Wind effect the site selection of an airport?

(f) Draw a neat sketch of satellite concept of terminal area.

(g) List out at least four components of an aircraft.

(h) Differentiate between minimum turning radius and minimum circling radius of an aircraft.

(i) What are the different types of light signals used as navigational aids in ports and harbors?

(j) Show the difference between the natural harbor and semi-natural harbor using a simple diagram.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2 Explain briefly about the classification of railways and also write the advantages of railways.

OR

3 What is creep? Discuss the theories propounded to explain probable causes of creep.

UNIT – II

4 What are the different gradients adopted the geometric design of a railway track? Explain.

OR

5 Explain briefly the different types of station yards. With the help of neat sketches, explain the functioning and types of a marshalling yard.

UNIT – III

6 What factors are to be considered while deciding the location and orientation of a runway? Explain.

OR

7 What do you understand by terminal area? What are the facilities provided in a terminal area? Draw neat sketches of any two typical airport layouts.

UNIT – IV

8 Explain the term “Basic runway length”. Describe the procedure of determining the actual runway length required at a particular site.

OR

9 Write about different elements in airport lighting. Explain any three of them in detail.

UNIT – V

10 Explain the classifications of ports. What are the components of ports and explain the functions of ports?

OR

11 Explain the requirement of navigational aids in a harbor. Provide a neat sketch of a typical light-house and discuss its function.

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