

Code No: **R1631015**

R16

SET - 1

III B. Tech I Semester Supplementary Examinations, August-2021
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) What is Cant Gradient? [2M]
- b) State any four ideal requirements of a permanent way. [3M]
- c) Why the removal of obstructions surrounding airport sites is absolutely necessary? [3M]
- d) Enumerate the classification of airports and their functional requirements. [2M]
- e) Distinguish between quays and jetties. [2M]
- f) What is the classification of navigational aids in a harbor? [2M]

**PART -B**

**(56 Marks)**

2. a) Briefly explain the modern methods of surveys for track alignment. [7M]
- b) What is the necessity of geometric design of a railway track? Enumerate the significant features of design of a railway track. [7M]
3. a) Write a detailed note on semaphore signal with a neat sketch. [7M]
- b) Draw a neat labeled layout of a Diamond crossing and scissors cross over and explain briefly. [7M]
4. a) Explain any four methods adopted to control movements of a train and compare their merits. [7M]
- b) Explain various methods to reduce creep on railway track. [7M]
5. a) Write short notes on: i) Holding apron; ii) Approach Zone. [10M]
- b) Differentiate Nose-in parking and nose-out parking. [4M]
6. a) State the characteristics of air transport, which make the air traffic control a complex one. Summarize the primary functions of air traffic control devices. [7M]
- b) Explain with neat sketches any four types of navigational aids in a harbor and state their functions. [7M]
7. a) Describe with neat sketches the effect of waves on coastal structures. [7M]
- b) Explain wet docks with neat sketches. [7M]

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