

Civil

Department of Civil Engineering

College of Engineering, Pune

End Semester Examination

Year : T.Y. B. Tech. (Civil)

Sub. Code : CE 305

Sub: Transportation Engineering I

Max. Marks : 50

Duration : 3Hrs.

Date: 30.11.2012

- Que. 1 :** a) Describe with neat sketches various signaling systems used in Railway Engineering. Further, draw flow diagrams to illustrate various types of railway signaling systems. Suggest the importance of each signal, its location and functioning in detail. (07)
- b) What is Dolphin? Explain various types of Dolphins with neat sketches. (03)
- Que. 2 :** a) Describe with neat sketches various signaling systems used in Ports and Harbour. Further, draw flow diagrams to illustrate various types of port and harbour signaling systems. Suggest the importance of each signal, its location and functioning in detail. (07)
- b) State and explain the principle of NATM which explains the functioning of TBM. (03)
- Que. 3 :** Draw a typical sketch of a commercial port and illustrate its various components. Explain in brief with sketches the functioning of the same. You can quote a case study to support your answer. (10)
- Que. 4 :** a) A ship is travelling in a deep sea and it near one of the port. Assuming a satisfactory luminous range find the geographical range or distance at which the light is first visible on the horizon from the light house if the height of the light house is 152m and height of the observer is 26m from sea level. (05)
- b) Following are the details of a project: (05)
- Overburden : 10m
- Length of road in hill : 500m
- Type of Strata: Soft disintegrated rock
- Width of Road : 12m
- Suggest with suitable sketches the best method of excavation and its support system. Also suggest the precautions to be taken during excavation and after completion of the work.
- Que. 5 :** Draw a neat sketches of : (10)
- i) Right Hand Turn Out
- ii) Diamond Crossing
- iii) Square Crossing
- iv) Symmetrical Split
- v) Various Roof Support Systems in Tunnelling
