

B.Tech Sem – VI (2007 Course) (Civil Engg.) : SUMMER - 2019
SUBJECT : INFRASTRUCTURE ENGINEERING - I

Day : Wednesday
Date : 29/05/2019

Time : 02.30 PM TO 05.30 PM
Max. Marks : 80

S-2019-3110

N. B. :

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from each section.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SAME** Answer book.
- 4) Assume suitable data if **necessary**.

SECTION - I

- Q.1**
- a) Explain concept of short welded rails and continuously welded rails. (05)
 - b) What are the functions of rails? Name the various types of rails in use. (05)
Which type is widely used now?
 - c) Explain the terms cant, cant excess and cant deficiency. (04)
- Q.2**
- a) What do you mean by rail creep? (07)
 - b) What are advantages of the flat footed rails over other types? (06)
- Q.3**
- a) What are the advantages and disadvantages of conventional fastening and elastic fastening? (07)
 - b) Explain concept over dimensioning consignment. (06)
- Q.4**
- a) Enlist and explain common items of track maintenance. (07)
 - b) What do you mean by semaphore signal? Explain. (06)

SECTION – II

- Q.5**
- a) Explain different patterns of drilling. (05)
 - b) Define following terms and explain. (05)
 - i) Shafts
 - ii) Portals
 - c) Differentiate between Dry Docks and Wet Docks. (04)
- Q.6**
- a) Explain heading and benching method of tunneling. (07)
 - b) State when the following methods of tunneling are adopted along with its reason (06)
 - i) Road Header
 - ii) Pilot Tunneling
- Q.7**
- a) Explain concept of underwater tunnel tubes. (07)
 - b) Explain any one method of construction of break water. (06)
- Q.8**
- a) Write a short note on quay & wharf. (07)
 - b) What is a jetty? How do you differentiate it from a wharf? (06)

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