

B. Tech. Sem – VIII (Civil Engg.) (2014 COURSE) (CBCS) :

SUMMER - 2019

SUBJECT : INFRASTRUCTURE ENGINEERING

Day : Tuesday

Time : 02.30 PM TO 05.30 PM

Date : 28/05/2019

S-2019-2876

Max. Marks : 60

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

- Q. 1** a) Differentiate between Nagpur plan and Bombay plan. (06)
b) Discuss concept of BOT. (04)

OR

- a) Classify the roads according to function. (06)
b) Discuss concept of BOLT. (04)

- Q. 2** What is stopping sight distance? Explain briefly with neat sketches and give factors affecting it. (10)

OR

- a) Explain with neat sketches different types of vertical curves used in the road. (06)
b) Discuss the factors affecting road gradient. (04)

- Q. 3** Enlist the highway construction materials and explain the test to carry out flakiness index of aggregate. (10)

OR

Enlist different types of bitumen and explain the softening point test for bitumen. (10)

- Q. 4** a) Discuss the necessity of uniformity of gauges in railway track. (06)
b) What are the different types of rails? Give their functions. (04)

OR

- a) How the location survey and alignment of railway track is carried out? (06)
b) Draw neat diagrams of fixtures and fastening used in railways. (04)

- Q. 5** a) What are the objects of signaling? Give the classification of signals. (06)
b) Discuss the concept of monorail. (04)

OR

- a) Draw a typical cross section of railway track showing all details and give the function of each element. (06)
b) Explain super elevation with neat diagram and give its limits. (04)

- Q. 6** Draw a typical layout for national airport. Show all details. Also explain function of each unit. (10)

OR

- a) What are the characteristics of air crafts? (06)
b) Describe runway and taxiway. (04)

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