

No. of Printed Pages : 4  
Roll No. ....

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**5th Sem / Civil Engineering**

**Subject : Railways, Bridges and Tunnels**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The place where a railway line and a road cross each other at same level is known as (CO1)  
a) Level Crossing      b) Road Junction  
c) Cross over          d) Railway Junction
- Q.2 The gauge of 610 mm is called as: - (CO2)  
a) Broad Gauge      b) Meter Gauge  
c) Feeder Gauge      d) None of the above
- Q.3 The component of well foundation which provides support to the cutting edge is (CO4)  
a) Well Cap          b) Bottom Plug  
c) Steining          d) Curb
- Q.4 IRC stands for \_\_\_\_\_ (CO3)  
a) Indian Rail Congress  
b) International Road Corporation  
c) Indian Road Congress  
d) Inter Road Congress

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- Q.5 Tunnel, which is used for the conduction of water to generate power is (CO5)  
a) Sewage Tunnels  
b) Pedestrian Tunnels  
c) Hydro-Power Tunnels  
d) None of the above
- Q.6 The maintenance work which is carried out regularly on the basis of regular inspection is (CO6)  
a) Special Maintenance  
b) Routine maintenance  
c) Both of these  
d) None of the above

**SECTION-B**

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 The rail sections in which head is larger than the foot are known as \_\_\_\_\_ (CO1)
- Q.8 Disc signals are also known as \_\_\_\_\_ (CO2)
- Q.9 Temporary bridges are also known as \_\_\_\_\_ (CO3)
- Q.10 The wall of a foundation well is known as \_\_\_\_\_ (CO4)
- Q.11 Segmental shaped tunnels are commonly used in \_\_\_\_\_ (CO5)

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- Q.12 The operation of removing loose rock fragments and hammering off projecting point rocks is known as \_\_\_\_\_. (CO6)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Enlist any five advantages of wooden sleepers. (CO1)
- Q.14 Explain various components of permanent way. (CO2)
- Q.15 Enlist the types of railway survey. Explain any two of them. (CO1)
- Q.16 What is Super elevation. Enlist any three advantages of Super elevation. (CO2)
- Q.17 Define pile foundation. Also write down the various types of piles according to material used. (CO4)
- Q.18 Briefly Explain open spandrel and filled spandrel barrel type of arch bridge. (CO3)
- Q.19 Explain the various parts of sub-structure of bridge. (CO4)
- Q.20 Explain the difference between permanent and temporary bridges. (any four) (CO3)
- Q.21 Explain the advantages and disadvantages of Tunnels. (Any four) (CO5)
- Q.22 Explain the use of geo-synthetics in tunnels. ( Any five) (CO6)

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### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain different component parts of a well - foundation. (CO4)
- Q.24 Explain the criteria for the selection of site for a railway station. Also briefly explain various types of railway stations. (Co2)
- Q.25 Give the classification of tunnels according to its shape along with free hand diagram. (CO5)

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