

- Q.27 Write a short note on "Width of Formation" for a railway track. (CO11)
- Q.28 Write any five factors affecting the selection of a bridge and explain any one of them. (CO13)
- Q.29 Describe various criterions used for the classification of bridges. (CO14)
- Q.30 Write the advantages of ROB. (CO14)
- Q.31 Explain the terms Sinking of Well foundation. (CO15)
- Q.32 Write down the functions of pier's provided in a bridge. (CO16)
- Q.33 Write down the purpose of providing the yards in railways stations. (CO12)
- Q.34 Write a short note on "Inspection of Bridges" required for their maintenance. (CO18)
- Q.35 Explain the working of abutments with splayed wing walls. (CO16)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain with the help of a diagram the working of concrete sleepers and also write their advantages and disadvantages. (CO7)
- Q.37 Explain the various factors which affect the site selection of a bridge? Explain any one of them. (CO14)
- Q.38 a) Describe the working of elastomeric bearings (CO17)
b) Write a short note on ventilation by blowing. (CO21)

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**6th Sem / Civil, Constr. Mgmt., Civil Engg
(Spl Highway Engg)**

Subject:- Railways Bridges and Tunnels

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The side slope of embankment for a railway track is generally taken as _____. (CO3)
a) 1 : 1 b) 2 : 1
c) 1.5 : 1 d) 1 : 2
- Q.2 Rail is designated by _____. ? (CO5)
a) Weight b) Length
c) Weight per unit length d) Cross-section
- Q.3 Bearings are provided in the bridges to allow free movement of the _____ without any difficulty . (CO17)
a) Girder b) Piers
c) Abutment d) End supports
- Q.4 The intermediate supports of a bridge super structure are known as _____. (CO16)
a) Piers b) Abutments
c) Foundation d) None of these
- Q.5 The small bridge having maximum span of 6 meters or less is known as _____. (CO13)
a) Minor bridge b) Major bridge
c) Abutment d) Culvert

- Q.6 Drifters can be used to drill _____ (CO19)
 a) Only up holes
 b) Horizontal and up holes
 c) Only down holes
 d) Horizontal, down and up holes
- Q.7 Which of the following lining material is useful for shield driven tunnels in sub aqueous region? (CO20)
 a) Stone masonry b) Cast iron
 c) Timber d) Cement concrete
- Q.8 The permanent drainage in a tunnel system is affected by _____ (CO22)
 a) Nature of tunnel b) Type of soil
 c) Type of lining d) All of these
- Q.9 Tunneling method used for laying under-ground sewer is? (CO22)
 a) Army method b) Needle beam method
 c) Italian method d) German method
- Q.10 In tunnel and shaft heading during drilling mucking and sealing minimum illumination should be provided at _____? (CO23)
 a) 50 lux b) 75 lux
 c) 100 lux d) 125 lux

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 The railways provided at elevated portion, above the ground surface are called _____ (CO1)
- Q.12 An outward slope of 1:20 to the head of wheels of rolling stock is termed as _____ (CO5)

- Q.13 The angle between the running faces of point rail and splice rail at a crossing is known as _____ (CO9)
- Q.14 For deciding the _____ of well foundation grip length must be considered as per IRC recommendations. (CO15)
- Q.15 The suitable pitching is to be provided to the _____ near bridges. (CO18)
- Q.16 In Rock tunnel Excavation _____ method of Tunneling is used to constructions (CO19)
- Q.17 Removal of loose rock fragments and hammering off projecting pointed rock is known as _____ (CO20)
- Q.18 Circular section of tunnels is not suitable for _____? (CO20)
- Q.19 The tunnels free from water during and after the construction operations is called _____ (CO22)
- Q.20 _____ Lights are usually found at the beginning of the tunnel. (CO23)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write the various factors influencing the railway route and describe any one of them. (CO2)
- Q.22 What are the various advantages of providing the uniform gauge system in a country? (CO4)
- Q.23 Write down the functions of rail fastenings. (CO6)
- Q.24 Write the requirements (any five) for a material to be good ballast. (CO8)
- Q.25 What are the requirements of good crossings. (CO9)
- Q.26 Write the various advantages of maintenance of railway track. (CO10)