

- Q.26 What are the functions of bridges. (CO-13)
- Q.27 What are permanent and temporary bridges?(CO-14)
- Q.28 Enumerate the functions of bridge foundations.
(CO-15)
- Q.29 Explain the various types of piers. (CO-16)
- Q.30 Define bearing and mention the purpose of provide bearings in a bridge. (CO-17)
- Q.31 Describe the types of bridge maintenance jobs.
(CO18)
- Q.32 List the various functions of railways. (CO-1)
- Q.33 What are the function of sleepers? (CO-6)
- Q.34 Define tunnel. Describe the necessity of tunnels.
(CO-19)
- Q.35 What is ventilation of tunnels? What is its necessity. (CO-20)

Section-D

Note: Long answer Questions. Attempt any two Questions out of three Questions. (2x10=20)

- Q.36 Why coning of wheel and tilting of rails is done in railways. (CO-4)
- Q.37 Define ballast and mention the functions of ballast.
(CO-7)
- Q.38 Explain all classification of bridges. (CO-14)

Note : Course Outcome (CO) mentioned in the question paper is for official purpose only.

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Roll No.....

Civil, Constr. Mgmt., Civil Engg.
(Spl. Highway Engg.)
Subject : Railways Bridges & Tunnels

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 What
- Q.1 The First train was run in India between Bombay and Thane on (CO-1)
- a) 1860 b) 1853
c) 1810 d) 1850
- Q.2 The preliminary survey should provide _____ capacity of the soil. (CO-2)
- a) Bearing b) Pillars
c) Quantity d) Survey
- Q.3 In metre gauge, the clear distance between the inner flanges of two rails forming a track is _____ (CO-3)
- a) 2m b) 1.5m
c) 1 m d) 1.2m
- Q.4 Common material for the manufacturing of rails is. (CO-4)
- a) Steel b) Wood
c) Iron d) Copper

- Q.5 A Culvert has a span usually less than. (CO-13)
 a) 2m b) 3m
 c) 4 m d) 6m
- Q.6 The useful life of timber bridge is (CO-14)
 a) 5-6 years b) 20-25 years
 c) 10-15 years d) 35-40 years
- Q.7 _____ provides support to the cutting edge. (CO-15)
 a) Curb b) Steining
 c) Bottom plug d) Well cap
- Q.8 The wing walls constructed as 90 degree to the abutments are called (CO-16)
 a) Wing walls b) Retaining walls
 c) Return wing walls d) Straight wing walls
- Q.9 Tunnel section is suitable for tunnels in soft rocks. (CO-20)
 a) Elliptical shape b) Segmental shape
 c) Circular shaped d) Horse shoe shape
- Q.10 _____ is the art of providing fresh air inside tunnels during or after their construction. (CO-21)
 a) Ventilation b) Drainage
 c) Hydro-power d) Subway

Section B

Note: Objective types Questions. All Questions are compulsory. (10x1=10)

- Q.11 The broad gauge is also known as _____ in India. (CO-1)

- Q.12 A _____ is the combination of rails, sleepers, ballast and formation. (CO-3)
- Q.13 F.F. Rails provide _____ rigidity to the vertical load. (CO-4)
- Q.14 _____ joint reduces the vertical disturbance of wheels at the joints. (CO-5)
- Q.15 _____ are the intermediate supports of a bridge structure. (CO-13)
- Q.16 A bridge having short span of life is known as _____ bridge. (CO-14)
- Q.17 Open foundation is also called _____. (CO-15)
- Q.18 The height of an abutment depends on _____. At the time of high flood. (CO-16)
- Q.19 Tunnels _____ the distance in hilly areas. (CO-20)
- Q.20 The ventilation done by natural method is called _____. (CO-21)

Section-C

Note: Short answer type Questions. Attempt any twelve Questions out of fifteen Questions. (12x5=60)

- Q.21 What are the various factors which influence the railway route? (CO-2)
- Q.22 Discuss the various components of a permanent ways. (CO-3)
- Q.23 Give comparison between bull headed and falt footed rails. (CO-4)
- Q.24 What are the requirements of an ideal fastening? (CO-5)
- Q.25 Enlist the components of a crossing. (CO-8)