

- Q.22 Factor that affected the railway route, Explain?
 - Q.23 Define buckling of rail & welding of rail.
 - Q.24 Define gauge & explain its types.
 - Q.25 What is ventilation of tunnels & how we can provide ventilation in tunnels?
 - Q.26 Describe the function of ballast in railway track.
 - Q.27 Define conning of wheels, tilting of rail, crossings.
 - Q.28 What are the functions of fish plate?
 - Q.29 Describe the various type of spikes.
 - Q.30 Describe the advantages & disadvantages of wooden sleeper.
 - Q.31 Define points, crossings, stock rail.
 - Q.32 What are the advantages of good maintenance of track?
 - Q.33 Define tunnel, tunnel lining, mucking.
 - Q.34 Name the methods of tunneling in soft rock.
 - Q.35 Explain needle beam method of tunneling.

SECTION-D

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

- Q.36 Explain railway engineering. Write advantage of railway in comparison to highways.

Q.37 Explain bridges discuss classifications of bridges.

Q.38 What is the function of foundation & explain the type of bridge foundation.

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**6th Sem / Branch : Civil Engineering/ Constr. Mgmt./
Civil Engg. (Spl. Highway Engg.)
Sub.: Railways, Bridges and Tunnels**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 What is the primary purpose of a railway bridge?

 - a) To provide a scenic view for passengers.
 - b) To connect different railway stations.
 - c) To allow trains to cross obstacles like rivers & valleys
 - d) To store trains when not in use

Q.2 Which type of bridge is commonly used for railway crossing over long spans?

 - a) Suspension bridge b) Arch bridge
 - c) Beam bridge d) Cable stayed bridge

Q.3 Which type of material often used for constructing Railway Bridge due to its strength & durability?

 - a) Plastic b) Wood
 - c) Steel d) Glass

Q.4 Which type of bridge design is characterized by curved shape, resembling an archer's bow?

 - a) Girder Bridge b) Truss Bridge
 - c) Arch Bridge d) Bear Bridge

- Q.5 Which type of tunnel is constructed through mountains & allows trains to pass through?
 a) Water tunnel b) Pedestrian tunnel
 c) Bore tunnel d) Elevator tunnel
- Q.6 Which of the following is not a safety feature commonly found in railway tunnels?
 a) Emergency Exits
 b) Air quality monitoring
 c) Fire suppression systems
 d) On board dining cars
- Q.7 What is the purpose of a turn table in a railway yard?
 a) To rotate locomotive for maintenance
 b) To store unused railway ties
 c) To clean train windows
 d) To load cargo onto trains
- Q.8 Gauge is defined as the minimum horizontal distance between?
 a) Out faces b) Inner faces
 c) Ballast d) Sleepers
- Q.9 Broad Gauge is?
 a) 1676 mm b) 1700 mm
 c) 1476 mm d) 760 mm
- Q.10 Which material is used for railway ballast?
 a) Asphalt
 b) Concrete
 c) Grave/Crushed stone
 d) Steel

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 The first train was run in India between Bombay to Thane on _____.
- Q.12 Railway track are typically made of two parallel _____
- Q.13 The device that allows train to switch from one track to another track is Called _____.
- Q.14 A tunnel is passage way that is typically constructed through a _____.
- Q.15 Railway tunnels often have emergency _____ to ensure passenger safety.
- Q.16 The distance between the two rail on a railway track is known as _____ gauge.
- Q.17 The purpose of railway ballast is to provide stability & support for the _____.
- Q.18 Railway engineers use a _____ boring machine to dig tunnel efficiently.
- Q.19 Chair is used to hold _____ Rail.
- Q.20 Narrow gauge _____ MM.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Discuss the advantages of underground railway.

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