

- 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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Roll No. ....

**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?
- To provide a scenic view for passengers.
  - To connect different railway stations.
  - To allow trains to cross obstacles like rivers & valleys
  - To store trains when not in use
- Q.2 Which type of bridge is commonly used for railway crossing over long spans?
- Suspension bridge
  - Arch bridge
  - Beam bridge
  - Cable stayed bridge
- Q.3 Which type of material often used for constructing Railway Bridge due to its strength & durability?
- Plastic
  - Wood
  - Steel
  - Glass
- Q.4 Which type of bridge design is characterized by curved shape, resembling on archer's bow?
- Girder Bridge
  - Truss Bridge
  - Arch Bridge
  - Bear Bridge

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- 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

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## 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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