

RAILWAY & BRIDGE ENGG.

6th Sem (CIVIL)

Short Question (2 mark type)

- ① Define gauge of a railway. Mention different types of gauges?
- ② Define Cant & Cant deficiency?
- ③ Define fish plates & Spikes?
- ④ Define afflux & free board?
- ⑤ Define creep of rails & buckling of rails?
- ⑥ Differentiate between skew alignment & Square alignment of bridge?
- ⑦ Write down the uses of Cofferdam?
- ⑧ What is the maximum value of Super-elevation provided in a track as per railway board?
- ⑨ Distinguish between bridge & culvert?
- ⑩ What do you mean by waterway & Causeway?

Long Question (5 mark)

- ① Mention the functions of ballast & state the requirements of good ballast?
- ② Write down the requirements & characteristics of an ideal bridge site.
- ③ Classify Indian Railways based on route, traffic & maximum permissible speed on routes.
- ④ What is wing walls? Explain its types?
- ⑤ Explain the types of rail joints with neat sketch.

- ⑥ What do you understand by D.T.M? Write down the objectives and scope of this method on Indian Railways?
- ⑦ Mention and explain the general principles of the design of bridge foundation?
- ⑧ What is coning of wheels? Discuss the necessity & effects of it.

- ⑨ What are the requirements of an ideal permanent way? Explain it with neat sketch!

Long Questions (7 mark type)

- ① What are the different types of rails? Explain each type of rails with neat sketch!
- ② Classify & describe briefly each classification of concrete & steel bridges!
- ③ What are the different types of bridge foundations? Describe it briefly with neat sketch!
- ④ What is turnout? Draw a neat diagram of right hand & left hand turnout & show their component parts?
- ⑤ What is meant by crossing? What are the essential requirements of a good crossing? Explain various types of crossing!
- ⑥ Define culvert? Write its types with neat sketch?
- ⑦ What are the methods of welding of rails? Describe any one method?
- ⑧ What is the need for the proper maintenance of a track? Discuss the various methods that ensure that a track is well maintained?
- ⑨ What is a bridge pier? Describe its types briefly with neat sketch?
- ⑩ Illustrate the various types of rail failures with sketches?