

2 MARK QUESTIONS:-

CHAPTER-1

1. What are the advantages of Railways?

CHAPTER-2

2. Define a permanent way.
3. Define the Gauge in railway Engg. .
4. Define sleeper density.
5. What do you mean by Creep rails ?
6. Write the types of rail seen used in our country.
7. Describe briefly the purpose of providing fish plate.
8. What is the standard life of concrete sleeper.
9. Determine the no. of sleepers for construction a B.G. track 936 m long.
Adopt sleeper density as $n+7$.
10. Define ballast.

CHAPTER-3

11. What is fish plate ?
12. What do you mean by permanent way Mention the requirements of an Ideal permanent way.
13. Write down the different types of railway gauge in India with their gauge width.
14. What is a track. List the various components of the track ?
15. List the requirements of an ideal Rails.
16. How a Section of the rail mentioned? What are the Standard section available on broad gauge in Indian railway?
17. What are the different types of joint used in rails?

18. list the various effects of the creep.
19. List any three advantages and disadvantages of the Steel Sleepers.
20. What are the basic function of the ballast?

CHAPTER-4

21. Define Super-Elevation.
22. What is meant by cant gradient?
23. What is an Ideal Alignment?
24. What is meant by track Circuiting ?
25. What are the sources of moisture in the track?
26. Modern methods of track maintenance.

CHAPTER-5

27. What is meant by interlocking?
28. What are the purpose of signaling?

CHAPTER-6

29. Define water way ?
30. How is the linear water way of bridges fixed ?
31. Define water way and economic span for a bridge ?
32. Classify different type of bridge.

CHAPTER-7

33. Define Afflux
34. What s break water?
35. What is scour depth ?
36. Mention different types of movable bridge ?
37. Explain tilting of the well foundation.
38. What are return walls and wing walls ?

CHAPTER-8

39. Define piers ?
40. Mention different types of movable bridges?
41. Distinguish between bridge & culvert.

42. Mention different types of IRC bridge loading
43. Define cable bridge

10 MARK QUESTIONS:-

1. Write the physical properties of a good ballast.
2. Draw a neat sketch of Bull headed rail with proper dimensions.
3. Describe briefly about the purpose of providing fish plates with sketch.
4. Describe the railway boards classification based on importance of route traffic carried and maximum permissible speed.
5. Define Gauge of the railway track. Discuss different gauges used in India with their suitabilities.
6. Describe the methods of maintenance of railway track.
7. Draw the neat diagram of a flat footed rail what are the requirements of an ideal rail section.
8. What are the different types of rails ? Explain type of rails with neat sketch?
9. Write down the requirements of good ballast.
10. Causes of creep and prevention.
11. What are the requirements of rail Joints ? Discuss the different types of rail joints with the help of neat sketches with relative merits and demerits.
12. A 6° curve in reverse direction in the layout of a B.G.. If the speed in branch line is restricted to 65 kmph, determine the restricted speed on the main track.

13. Determine the length transition curve for BG track curve of 4 having a cant of 8 cm. the maximum permissible speed on the curve is 80 kmph.
14. If a 8° curve track diverges from main track curve of 50 in an opposite direction in the layout of a B.G. yard. Calculate the super-elevation and the speed on the branch line. If the maximum speed permitted on the main track is 450 kmph.
15. What are the main objectives of providing super elevation ? Mention their limiting values for railway track.
16. Shows a left hand turnout with its components by providing a neat sketch.
17. Describe the necessity of points & crossing and describe briefly the main components.
18. What is Coning of wheels ? Discuss the necessity and effects of it.
19. What is meant by gradient and enumerate the various types of gradient with all the details?
20. Enumerate the concept of a grade compensation and also explain the basic formulas used in grade compensation.
21. What is meant by permanent way? Explain the basic requirements of an permanent way?
22. What is meant by joints in rails? Explain the various types of joints in railway?
23. A 5° curve diverges from a 3° main curve in reverse direction in the layout of B.G Yard. If the Speed on the branch line is restricted 35KMPH .determine the restricted Speed on the main Curve.
24. If A 8° curved track diverges from a main track of 5° in an

opposite direction in the layout of B.G Yard. Calculate the Super-elevation and Speed of a branch line. If the maximum Speed permitted on the main line is 45 KMPH.

25. Enumerate the various types of rail sections used in railway. Give all in details.
26. Enumerate the various types of Sleepers and its advantages and disadvantages with all the details.
27. Explain the various types of horizontal curves. Give all in detail with neat Sketch.
28. What is scour depth? Discuss the relative merits and demerits of finding scour depth by various methods.
29. What are different types of bridge foundation and describe shallow and well foundation with sketches
30. What is coffer dam? Write down the requirements of coffer dam.
31. Draw a neat sketch of a well foundation showing all components. Describe at least five components briefly.
32. Explain briefly the pile driving and load carrying capacity of piles.
33. What is wing walls. Write at least three functions of wing wall.
34. Classify and describe briefly each classification of steel and concrete bridge?