RRB TECHNICAL EXAM PAPER

Railway Engineering

1. The bent-up length of rail used in front of nose of crossing which help in channelising the train wheels in their proper routes are known as:

(a) lead rail (b) point rail (c) wing rail (d) splice rail

Ans:- C

2.The point up to which the new railway track laid, at any time is called:

(a) terminal (b) station (c) rail-head (d) base

Ans:- C

3.The good quality wood for sleeper is:

(a) Deodar (b) Sheesham (c) Teak (d) Sal

Ans:- C

4.Generally the life of wooden sleepers is taken as:

(a) 2 to 3 years (b) 12 to 15 years

(c) 35 to 50 years (d) 5 to 8 years

Ans:- B

5.The gradual or tapered widening of the flangeway which is formed by bending and splaying the end of check rail or wing rail away from the gauge line is known as:

(a) Flare (b) Toe (c) Heel (d) Loop

Ans:- A

6.The minimum height of embankment above the highest flood mark in the area should be:

(a) zero cm (b) 30 cm (c) 100 cm (d) 60 cm

Ans:- D

7.The recommended depth of ballast cushion on a curved portion of a track is provided under the …….. edge of the sleeper.

(a) upper (b) middle (c) inner (d) outer

Ans:- C

8. An outward slope provided on the tread of the wheel is:

(a) 1 in 5 (b) 1 in 10 (c) 1 in 20 (d) 1 in 25

Ans:- C

9.The granular material spread on the formation of a railway track for the sleepers to rest upon is known as:

(a) anchors (b) ballast (c) subgrade (d) chairs

Ans:- B

10.Bone shaped section of fish plate is commonly used for connecting:

(a) double headed rails (b) flat footed rails

(c) bull headed rails (d) all above are correct

Ans:- B

11.The members laid transversely under the rails for supporting and fixing them at the gauge distance apart are known as:

(a) fastenings (b) sleepers (c) ballast (d) fish plate

Ans:- B

12.The bottom width of foot in a flat footed rail is:

(a) 78.6 mm (b) 136.5 mm (c) 66.7 mm (d) 70 mm

Ans:- B

13.The rectangular pits in which wheels of the locomotives are taken out for repairs, are known as:

(a) Track pits (b) Inspection pits

(c) Drop pits (d) Siding pits

Ans:- C

14. The wheels are coned to prevent from rubbing the inside face of the rail head and to prevent lateral movement of the axle with its wheels. The slope of cone is:

(a) 1 in 5 (b) 1 in 20 (c) 1 in 10 (d) 1 in 15

Ans:- B

15. Gauge is the distance measured in place of the between which faces of two parallel rails in a track.

(a) inner faces

(b) centre line of one rail to inner face of other rail

(c) centre lines (d) outer faces

Ans:- A

16. Most significant which imposes limitations in raising the high speeds is:

(a) adhesion of wheels (b) resistance due to oscillations

(c) flange resistance (d) air or wind resistance

Ans:- A

17. The rails are welded by:

(a) Thermit welding (b) Gas welding

(c) Arc welding (d) MIG welding

Ans:- A

18. Steel sleepers are ..... shaped in section.

(a) oval (b) rectangular (c) trough (d) semi-spherical

Ans:- C

19. In India generally the sleeper density of sleepers per rail length used is:

(a) 18 (b) 30 (c) 12 (d) 24

Ans:- A

20. The extra rails provided over bridge to prevent damage and danger in case of derailment on the bridge are known as:

(a) Stock rails (b) Guard rails (c) Check rails (d) Wing rails

Ans:- B

21. The phenomenon of misalignment of rails due to temperature change is known as:

(a) cropping (b) creeping (c) bulging (d) buckling

Ans:- D

22. Creep is the ..... movement of rails.

(a) longitudinal (b) diagonal (c) horizontal (d) vertical

Ans:- A

23. Ballast best suited to steel sleepers is:

(a) sand (b) Gravel (c) Quartzite (d) All the above

Ans:- C

24. The section of a rail is decided on the basis of:

(a) Type of rails (b) Spacing of the sleepers

(c) Speed of trains (d) All of the above

Ans:- D

25. While preparing sub-grade of a railway line, the grubbing operation means:

(a) checking of subgrade

(b) filling or cutting of earth work in railway subgrade

(c) compaction and consolidation of earth work

(d) removal and disposal of stumps and roots trees

Ans:- D

26. The sinuous path taken by an engine as against the alignment of the track is known as:

(a) Rolling motion(b) Nosing motion

(c) Lurching motion(d) Vibration

Ans:- B

27. The mechanical device which transfer chemical energy of fuel into mechanical energy in the form of motion is called:

(a) rolling stock (b) railway (c) wagon (d) locomotive

Ans:- D

28. Integrated coach factory is located in:

(a) Chennai (b) Bangalore (c) Jamshedpur (d) Mumbai

Ans:- A

29. C.T.C. stands for:

(a) Critical Track Control

(b) Critical Traffic Channeliser

(c) Centralised Traffic Control

(d) None of these

Ans:- C

30. To reduce the intensity of pressure particularly on soft variety of sleepers, a rectangular plate is introduced between the rails and the sleepers. This is known as:

(a) Fish plate(b) Chair

(c) Saddle plate (d) Bearing plate

Ans:- D

31. Generally the rail sections used in India is:

(a) flat footed (b) double headed

(c) bull headed (d) all above

Ans:- A

32. The arrangement consisting of three tracks used for changing the direction of engine is called:

(a) three ladder track (b) turn table

(c) three throw switch (d) triangle

Ans:- B

33. The length of a wooden sleeper for broad gauge track is:

(a) 1.83 m (b) 1.52 m (c) 2.74 m (d) 1.676 m

Ans:- C

34. The technical officer of the rank of sectional officer in the maintenance organisation of Indian Railways is called:

(a) Permanent Way Inspector

(b) Gangmate

(c) Assistant Permanent Way Inspector

(d) None of these are correct

Ans:- C

35. The depth of ballast section under sleeper for broad gauge track as per Indian standard should be:

(a) 250 to 300 mm (b) 200 to 250 mm

(c) 150 to 200 mm (d) 150 mm

Ans:- B

36. The completed and finished railway line on which wheeled vehicles are drawn by locomotive is known as:

(a) steel way (b) rails (c) railway (d) permanent way

Ans:- D

37. The horse power to weight ratio steam engine is generally of the order of:

(a) 10-15 kg/HP (b) 60-80 kg/HP

(c) 20-30 kg/HP (d) 100-150 kg/HP

Ans:- B

38. The cause of formation of kinks in a rail is:

(a) Loose packing at joints

(b) Defect in gauge and alignment

(c) Defect in cross level joints

(d) Any of the above

Ans:- D

39. The horizontal distance from the material depot to the rail head is called:

(a) lift (b) site distance (c) rail-head (d) lead

Ans:- D

40. On curves, to counteract the effect of centrifugal force, the level of outer rail is raised above the inner rail by a certain amount. This is called:

(a) Track gradient (b) Track slope

(c) Super elevation (d) Horizontal gradient

Ans:- C

41. The measure of stiffness of track required to produce a unit depression in the track is known as:

(a) Tractive force(b) Load capacity

(c) Gauge(d) Track modulus

Ans:- D

42. The head of a gang in maintenance organisation of railway is called:

(a) P.W.I (b) Keyman (c) Ganger (d) A.P.W.I

Ans:- C

43. The fixed rail in a railway track against which the tongue rail fits s known as:

(a) wing rail (b) stock rail (c) lead rail (d) point rail

Ans:- B

44. The standard length of rail for Broad Gauge track in India is:

(a) 19.2 m (b) 25.6 m (c) 11.8 m (d) 12.8 m

Ans:- D

45. The thickness of fish plate generally used in Indian Railway is:

(a) 16 mm (b) 10 mm (c) 25 mm (d) 20 mm

Ans:- D

46. Thermal efficiency of a diesel engine may be expected to be in the range of:

(a) 50-65% (b) 25-35% (c) 15-20% (d) 10-15%

Ans:- B

47. Wear on top or head of rail occurs due to:

(a) Abrasion of rolling wheels

(b) Heavy axle load

(c) Constant brake application

(d) Any or all of the above

Ans:- D

48. Any movement of the locomotive in different planes, e.g., vertical, longitudinal, transversal etc., is known as:

(a) Oscillating motion(b) Lurching motion

(c) Shutting motion(d) Vibration

Ans:- A

49. In rainy season the dust in the ballast becomes mud and comes up by suction from below the rail joint. Such joint is called:

(a) Wet joint (b) Water joint

(c) Pumping joint (d) Blowing joint

Ans:- C

50. Accidents can be avoided by adopting:

(a) interlocking (b) C.T.C. system

(c) pilot guard system (d) A.T.C. system

Ans:-A