

Railway & Bridge Engg.

6th Sem (Civil Engg.)

- ① The first train in India was run between
(a) Delhi and Kolkata (c) Delhi and Mumbai
(b) Mumbai & Thane (d) Mumbai and Kolkata.
- ② The clear distance between inner faces of rails near their tops is known as _____ of the track.
(a) clear width (b) gauge (c) head width
(d) foot width
- ③ The broad gauge is _____ wide.
(a) 0.6096m (b) 0.762m (c) 1.00m (d) 1.676m
- ④ For main cities and routes of maximum intensities, the type of gauge adopted is
(a) Broad gauge (b) Metre gauge
(c) Narrow gauge (d) All of these.
- ⑤ The resistance of the train is due to
(a) speed (b) gradient (c) curves (d) All of these.
- ⑥ The width of top portion of a flat-footed rail, is
(a) 66.67mm (b) 69.80mm (c) 73.25mm (d) 75.81mm
- ⑦ The largest dimension of rail section is
(a) head width (b) foot width (c) height
(d) All of these.

8) The rail section is divided on the basis

- of
- (a) type of rails (b) Spacing of sleepers
 - (c) Gauge of the track (d) Speed of trains.

9) The joint generally not used on Indian railway is

- (a) Supported joint (b) Suspended joint
- (c) Bridge joint (d) Base joint

10) Between two rails, a gap of — is provided for free expansion of the rails due to rise in temp.

- (a) 1.5mm to 3mm (b) 3mm to 6mm
- (c) 6mm to 9mm (d) 9mm to 12mm

11) The coning of wheels is made to prevent the

- (a) lateral movement of the axle
- (b) lateral movement of the wheels
- (c) Damage of the inside edges of rails
- (d) All of these

12) To reduce the wearing of rails, the rails are placed at an

- (a) inward slope of 1 in 20
- (b) outward slope of 1 in 20
- (c) inward slope of 1 in 30
- (d) outward slope of 1 in 30

- (13) The distance between two adjoining rails fixed in a rigid frame is known as
 (a) Gauge (b) ~~Wheel base distance~~
 (c) Creep (d) None of these
- (14) Creep is the _____ movement of rail.
 (a) ~~Longitudinal~~ (b) Lateral (c) Vertical
- (15) Creep is greater
 (a) On curves (b) In new rails than in old rails
 (c) ~~Both (a) & (b)~~ (d) None of these
- (16) The longitudinal movement of the rails in a track is technically known as
 (a) Buckling (b) Hogging (c) ~~Creeping~~
 (d) None of these
- (17) The impact of the rail wheel ahead of the joint gives rise to the creep of the rail. This statement is according to
 (a) Wave theory (b) ~~percussion theory~~
 (c) Drag theory (d) None of these
- (18) The flow of rail metal due to abnormal heavy loads is called
 (a) Hogging (b) Buckling (c) ~~tears of rails~~
 (d) Creeping
- (19) The chief function of sleepers is to
 (a) Support the rails
 (b) Keep the two rails at correct gauge

(c) Distribute the load coming on rails to the ballast.

(d) All of the above.

(20) Sleepers which satisfy all the require-ments and are easy, suitable for track circuiting are

(a) wooden sleepers (b) steel sleepers

(c) cast iron sleepers (d) R.C.C. sleepers.

(21) Which of the following sleepers provide best elasticity of track.

(a) wooden sleeper (b) cast-iron sleeper

(c) steel sleeper (d) R.C.C. sleeper

(22) Minimum packing space provided between two sleepers is

(a) 250 to 300mm (b) 300 to 350mm

(c) 350 to 400mm (d) 400 to 450mm

(23) The type of sleeper used, depend upon

(a) Initial and maintenance cost

(b) Easy fixing & removal of rails

(c) Provision for sufficient bearing area for rail.

(d) All of the above.

(24) The standard size of wooden sleepers on metre gauge railway track is

(a) 1.52m x 15cm x 10cm (b) 1.83 m x 20cm x 11cm

(c) 2.74m x 25cm x 13cm (d) Any of these

25) Adzing is done in the sleepers to give a slope of
(a) 1 in 10 (b) 1 in 20 (c) 1 in 30 (d) 1 in 40

26) A CST - 9 sleeper consists of
(a) Two inverted pots on either side of the rail seat

(b) A single two way key on the gauge side

(c) Both (a) & (b)

(d) None of the above

27) R.C.C. Sleepers are used in railways due to their

(a) Suitability for track circuiting

(b) Capacity to maintain the gauge properly

(c) Heavy weight which improves the track modulus

(d) All of the above

28) The no. of sleepers used per rail length on the track is known as

(a) Sleeper strength (b) Sleeper density

(c) Sleeper ratio (d) All of these

29) The ballast material generally used in Indian railways consist of

(a) Broken stone (b) Gravel (c) Moorum

(d) All of these

30) The dog spikes are used for fixing rails to the

- (a) ~~wooden sleepers~~ (b) concrete sleepers
(c) steel sleepers (d) CST-9 sleepers

31) The no. of dog spikes normally used per rail seat on curved track is

- (a) one on either side (b) one inside and two outside

(c) one outside and two inside

(d) two on either side

32) A track is laid over

- (a) Sleepers (b) formation (c) Rails (d) Ballast

33) To hold the adjoining ends of rails in correct horizontal & vertical planes, the rail fastenings used are

- (a) fish plates (b) Spikes (c) Anchors (d) Bearing plates

34) The size of ballast used on Indian railways for wooden sleepers is

- (a) 25mm (b) 38mm (c) 43mm (d) 50mm

35) The spike commonly used to fix the rails on wooden sleepers is

- (a) Dog Spike (b) Round Spike
(c) Screw spike (d) All of these

(36) The main purpose of using bearing plates is to

- (a) Distribute the pressure over wider area
- (b) Eliminate the adking of wooden sleepers
- (c) prevent the widening of gauge of curves
- (d) All of these

(37) The overall depth of a dog spike is

- (a) 120.6 mm
- (b) 159.5 mm
- (c) 175.9 mm
- (d) 180.6 mm

(38) The track from which train starts is known as

- (a) Turn out
- (b) Main line
- (c) Crossing track
- (d) point

(39) The length of platform should be _____ the longest train which is moving over that section.

- (a) Equal to
- (b) less than
- (c) More than

(40) The distance between the adjacent faces of the stock rail & the check rail is called.

- (a) Heel divergence
- (b) Heel clearance
- (c) Flangeway clearance
- (d) Throw of switch

(41) In India, the crossing no. for passenger turnouts is taken as

- (a) 6
- (b) 8.5
- (c) 10
- (d) 12

42) The crossing in which the right hand rail of one track crosses the left hand rail of another track or vice versa is called

- (a) Acute angle crossing (b) Obtuse angle crossing
(c) Square crossing (d) None of these.

43) When two tracks of same or different gauges cross each other at any angle, the crossing provided is

- (a) Diamond crossing (b) Scissors crossing
(c) Level crossing (d) All of these.

44) The main device used for interlocking is

- (a) point lock (b) Treadle bar (c) detector
(d) All of these.

45) The switch angle depends upon

- (a) length of tongue rail (b) Heel divergence
(c) Both (a) & (b) (d) None of these.

46) Superelevation on curves is provided by means of

- (a) Cant - board (b) Straight edge
(c) Spirit level (d) All of these.