

Disclaimer

This question bank is only for guidance of candidates to understand and the nature and type of questions that are generally asked. It does not mean that questions will be asked from this question bank only. The examiner may or may not ask questions from this question bank, either partially or wholly. Candidates should prepare the relevant subjects thoroughly and should be prepared to answer any question on the concerned subjects.

अस्वीकरण

यह प्रश्न बैंक केवल उम्मीदवारों के मार्गदर्शन एवं प्रकृति समझाने प्रश्नों के प्रकार के लिए है जो आमतौर पर पूछे जाते हैं। इसका मतलब यह नहीं है कि इस प्रश्न बैंक से ही प्रश्न पूछे जाएंगे। परीक्षक इस प्रश्न बैंक से आंशिक रूप से या पूर्ण रूप से प्रश्न पूछ सकता है या नहीं भी पूछ सकता है। उम्मीदवारों को संबंधित विषयों को पूरी तरह से तैयार करना चाहिए और संबंधित विषयों पर किसी भी प्रश्न का उत्तर देने के लिए तैयार रहना चाहिए।

Question Bank CETA/CNB (Fill in the blanks)

60 kg, 90 UTS rails on main line shall be used for works.

- A. Relaying B. Doubling C. Gauge Conversion D. A, B, & C are correct.

Minimum Safe distance for detonater placed on track is

The frequency of Joint inspection of points crossing by JE/P. Way & S&T is.....

- A. Once in 3 months B. Once in 6 months C. Once in 4 months D. None of it.

39 m 90 UTS rail panel should be slinged at points. During lifting.

If C/L to C/L distance between two parallel track increases, overall length of cross over will

The sections having defective welds more than per Km. will be given priority in sanction of rails renewal.

- A. 30 or more B. 50 or more C. 20 or more D. None of it.

No. of PSC sleepers in one set of fan shaped 1 in 2 turnouts are.....

IMR rails should be replaced within days.

Normally lubrication of fishplated joints shall be done

Diamond crossing cannot be laid flatter than

The same set of fan shape turnout PSC sleepers can be used for turnout.

- A. Both RH & LH B. Either RH or LH C. Symmetrical split D. None of it.

Concrete sleepers are best suited than sleepers for tamping.

Bridge needs immediate repairs, will be allotted ORN

Width of formation on embankment of BG single line LWR track is mm

Retention of ballast during sieve analysis with 40 mm screening mesh can be between%

Max speed on "D" special route can be kmph.

Versine of turnout curve shall be measured onM chord.

Maximum limit of throw of switch in turnout mm.

Service life of 60 Kg. 90 UTS rail is GMT.

Anti corrosive paint is used for painting of rails is

No. of rails of 13 meter length required for one Km track is.....

Max. retention of ballast during sieve analysis with 65 mm screening mesh can be%

B. 5% B. 10% C. 2% D. None of it.

Routes having speed potential of..... kmph, will be classified as A route.

HFL is marked on side of bridge.

Sand Hump should be inspected by SSE/PW/IN in over all charge, once in

Fouling marks are provided where distance between two tracks SOD in yards.

Temp de-stressing of LWR before deep screening shall be done if chances of rise in temperature is beyond.....

Cross slope at top of formation for new construction is

Rolling mark of rails indicates.....

A. Year of Manufacture B. Weight per meter C. UTS of rail D. All three correct .

The length of virtual transition is meter for BG.

Level crossing should not fall in of LWR.

..... Fittings can cause buckling of LWR track.

De-stressing is necessary if more than temporary repairs have been carried out in one km of LWR.

Rails more than years old should not be welded.

Dial thermometer is a for measurement of rails temperature.

SEJ should not be provided in

No A.T. welding joint should be closer than meter from fishplate joints.

Last years record of gang chart should be maintained.

If value of Track geometry index (TGI) is 50, it means track should be maintained as per.....

- A. 6000 approximately B. 7070 approximately C. 8000 approximately D. none of it.

Longest tunnel on Indian Railway is

- Pir Panjal on Jammu Udhampur section
- Near Lonavala between Monkey hill and Khandala station.
- Kalka Shimla.
- Darjeeling hill Railway.

Longest passenger train on Indian Railway is

- A. Prayagraj Exp. B. Kalka Exp. C. Himsagar Exp. D. Lucknow Mail

Railway station at the highest altitude on Indian Railway is

- Ghum station in Darjeeling Himalayan Railway.
- Shimla station on Kalka shimla railway line.
- Mount Abu and Abu Road Mount Road Station.
- Joginder Nagar on Pathankot joginder nagar station.

Track and Track Gauges

Track structure for private siding with operating speed of 80 to 100 kmph is same as the track structure as specified for

A. Group B route	B. Group A route	C .	Group D route	D .	Group C route
------------------	------------------	-----	---------------	-----	---------------

Track structure for private siding with operating speed of 50 to 80 kmph is same as the track structure as specified for

B. Group A route	B. Group B route	C .	Group D route	D .	Group E route
------------------	------------------	-----	---------------	-----	---------------

Indicate which of the statement is incorrect with regard to coning of wheels.....

It helps in smooth riding

It increases wear and Tear of wheel flanges.

It enables the outer wheel of vehicle to take a longer distance.

It restricts the swaying of vehicles.

Coning of wheels help the vehicle to negotiate a curve smoothly.

For rolling mark 60 kg/Sail/X/2010 the first testing in the field after initial testing of rails in rail manufacturing plant, will be done.

After test free period of 25%.

After passage of every 40 GMT traffic during test free period.

After passage of 200 GMT.

On the basis of annual GMT of the section.

Side looking 70° 2MHZ probe is tested for detecting.

- A. Flow in head B. Flow in web C. Half moon crack in flange D. For all above.

Marking of DFWR weld is

Two red point circle on both faces of weld.

Once red point circle on both faces of weld

Two red point cross on both faces of weld.

None of the above.

DFWR weld shall be replaced

Within 2 months of detection.

Within 1 year of detection

Within 3 months of detection.

After 3 days of detection.

On branch line one new AT weld with 0° probe shows a signal of 58 is

During periodic testing of an AT weld with 70° probe, a bunch of moving signals of less than 40% but more than 10% is observed in the head of weld, the joint will be

The frequency of a wave travelling at a speed of 500 ms⁻¹ is 25 Hz. Its time period will be

- A. 20 s B. 0.05 s C. 25 s D. 0.04 s

The amplitude of a wave is

The distance the wave moves in one second.

The distance the wave moves in one time period of the wave.

The maximum distance moved by the medium particles on either side of the mean position.

The distance equal to one wave length.

The physical quantity, which oscillates in must waves, is

- A. Mass B. Energy C. Amplitude D. Wave length

Sanitary Engineering

Sewerage system in a railway colony may be

- A. Combined system B. Separate system C. Partially combined system
D. Any of them.

Tilting of rails is done at a slope of

- A. 1 in 30 B. 1 in 25 C. 1 in 20 D. 1 in 15

Clear perpendicular distance between inner faces of two rails is

- A. Gauge of Track B. Inner Gauge C. Wheel base D. Wheel gauge

The ratio of wheel diameter to gauge is about

- A. 0.40 B. 0.55 C. 0.75 D. 0.90

The train runs faster on BG than on MG rail because its speed is directly proportional to

- A. Weight of the train B. Gauge width C. Policy of Railway Board D. Length of the train.

The ratio of maximum cant 'e' end gauge 'G' in India is about

- A. 1/100 B. 1/50 C. 1/10 D. 1/25

"Composite sleeper index" is employed to determine

Sleeper density requirement.

Number of fixtures required for a particular type of sleeper

Durability of sleeper.

mechanical strength of wooden sleepers and thereby gives its suitability as to be used as li sleepers.

The maximum permissible speed recommended for Indian Railways for 1 in 8 and half crossing is

- A. 15 kmph B. 20 kmph C. 24 kmph D. 32 kmph

What is the weight per meter length of 52

9. kg rail.

- A. 54.14 kg B. 50.25 kg C. 51.89 kg D. 53.85 kg

10 What is the height of 60 kg rail section

.....

- A. 180 mm B. 172 mm C. 185 mm D. 165 mm

12

. What is the assessed GMT service life of 60 kg 90 UTS rail.

B. 600

- A. 650 GMT GMT C. 800 GMT D. 500 GMT

13

. What is the assessed GMT service life of 52 kg 90 UTS rail.

B. 600

- A. 650 GMT GMT C. 525 GMT D. 500 GMT

What is the full form UTS of rails.

- A. Ultimate technical Strength B. Ultimate tensile Strength C. Upper Top surface
D. None of above

What is the width of Head of 52 kg rail section.

- A. 70 mm B. 75 mm C. 67 mm D. 60 mm

16. What is the full form of GMT.

- A. Gross Million Tonnes B. Gross minimum thickness
C. Gross Maximum thickness D. Any of them.

Multiple choice questions on Level Crossing

TVU is abbreviated for

- A. Track vulnerable unit B. Train vehicle unit C. Total vehicle
unit D. Traffic variation unit.

Indication post for detonator should be provided at a distance of meter and
..... meter for BG level crossing.

- 400 meters & 800 meters
500 meters & 1200 meters
600 meters & 1200 meters
600 meters & 1000 meters.

For protection of level crossing gate in an emergency on BG double line the
Gateman should place on detonator at one place and 3 detonators at a
subsequent place at a distance of ----- .

- 400 meters & 800 meters
500 meters & 1000 meters
600 meters & 1200 meters
800 meters & 1500 meters.

Periodical Census of traffic at unmanned level Crossings should be done once in
.....

- A. Once in 6 years B. Every year C. Once in 3 years D.
Once in 5 years.

5. level crossing beyond the outermost stop signals is called.

- A. Engineering Gate B. Traffic Gate C. Engineering and Signal Gate D. Signal
Gate

On an unmanned level crossing stop board should be provided at a distance of
..... from the centre of nearest track.

- A. 5 meters B. 6 meters C. 3 meters D. 7.5 meters

Speed breaker has to be provided on road approaches of level crossing at
maximum feasible distance within but not exceeding.

- A. 10 meters B. 15 meters C. 20 meters D. 200 meters

The rail joint should be located at from the end of level crossing in SWR

- A. 2 meters B. 3 meters C. 5 meters D. 6 meters

9. Lowest level of staff/Supervisor competent for all operations regarding
distressing in LWR/CWR.

- A. PWI B. PWS C. Gang
mate D. Keyman

10. Lowest level of staff/Supervisor competent for passing of first train after
buckling in LWR/CWR.

- A. PWI B. PWS C. Gang
mate D. Keyman

11. How many zones are in Indian
Railway.

- A. 8 B. 10 C. 16 D. 12

In LWR what is the range of distressing temperature in 52 kg and heavier section.

Mean rail temp+5⁰ C to Mean rail temp + 10⁰ C.

Mean rail temp+5⁰ C to Mean rail temp + 15⁰ C.

Mean rail temp mean rail temp + 10⁰ C.

Mean rail temp+2⁰ C to Mean rail temp + 10⁰ C.

None of it

What is full form of SPURT car.....

Self propelled ultrasonic rail testing car.

Self pulled united rail testing car.

Self pumped universal testing car.

None of above.

What do you mean by 60 kg rail.....

Weight of rail in 1 meter

Area of rail of 1 meter

Weight of rail in 1 feet

Volume of rail in 1 meter

Points & Crossing is laid at a cant of

A. 1 in 20

B. 1 in 10

C. 1 in 15

D. NIL

Maximum permissible vertical wear on nose of a 52 kg CMS crossing on Rajdhani route is

A. 6 mm

B. 8 mm

C. 10 mm

D. 12 mm

Normal life of detonators is

A. 5 years

B. 10 years

C. 7 years

D. 6 years

Maximum distance apart of trolley refuges on bridges with main spans of 100 meter or more is

A. 50 mtr

B. 100 mtr

C. 200 mtr

D. a refuge over each pair

Permissible creep in track is

D. 150

A. 50mm

B. 100 mm

C. 125 mm

mm.

Maximum distance covered in a day by a Patrolman should not

20. normally exceed.

A 2 km

B. 5 km

C. 10 km

D. 20 km

Curve inspection shall be carried out by sectional PWI on A & B

21. route

- A. Once in 3 months
- B. Once in 6 months
- C. Once in 4 months
- D. None of above.

An accident has taken place at out station and relief train is to be turned out without medical car. The hooter shall be.....

- A. 3 long
- B. 4 long
- C. 4 long,
- D. none of it

Maximum speed restriction to be imposed for Track renewal is

Service life in terms of total GMT carried for 52 kg. 90 UTS rails is

Minimum rail section recommended for section having traffic more than 20 GMT is

.....

- A. 90 UTS
- B. 52 kg
- C. 60 kg
- D. None of the above.

26. Lubrication of ERC and inserts in corrosion prone areas and platform line is done

.....

- A. Once in a month
- B. Once in a fortnight
- C. Once in a week
- D. Once in a year

Vertical wear permissible for 60kg /90 UTS rails is

Permissible wear of web & foot of rail due to corrosion is.....

- A. 15 mm B. 1.5 mm C. 0.5 mm D. 2.5 mm

Minimum depth of ballast cushion below the bottom of sleeper at the rail seat on BG 29. group A route should be

.....

.....

C. 300

- A. 350mm B. 250 mm C. 300 mm D. 325 mm

30. Sleeper density for group 'A' route with traffic density more than 20 GMT is

B. 1660 Sleepers/Km C. 1540 sleeper/km D. 1340

- A. 1560 sleepers/Km C. 1540 sleeper/Km.

52 kg 90 UTS; PSC 1540 sleepers/Km; 250 mm ballast.

60 kg 90 UTS; PSC 11640 sleepers/Km; 300 mm ballast.

52 kg 72 UTS; PSC 1540 sleepers/Km; 300 mm ballast.

90 R; PSC 1340 sleepers/Km; 250 mm ballast.

Deep screening of entire track must be done at least

Once in a quarter

Once in a year

Once in 5 years

Once in 10 years.

Service life of Glued insulated rail joint of 60 kg rail is

Service life of improved SEJ of 60 Kg rail is

400 B. 300 GMT C. 200 GMT D. 150

- A. GMT C. 200 GMT

35. Service life of CMS crossing (52 kg rail) is

.....

400

D. 150

A. GMT

B. 300 GMT C. 200 GMT

GMT

D & G charges for works estimates of CTR (P) is

A. 2.25%

B. 1.8%

C. 1.35%

D. 1.62%

37. What is speed restriction on deep screening site done by BCM and tamped by machine followed with DGS.

A. 20

B. 30

C. 40

D. 10

What is the testing frequency of new AT weld

Just after the welding B. After 7 days of welding C. Within the one month of welding D. None of the above.

After declare good in USFD testing what is the joggling criteria.....

Joggle will be open from the AT weld

Joggling with two far end bolting

Joggling with four tight bold.

D. None of the above.

USFD testing of new AT weld will be done by

- A. JE/SSE sectional operator B. In-charge SSE C. USFD machine operator D. None of the above.

Testing of AT weld shall be done from

- A. SRT B. DRT C. Digital weld tester D. None of the above.

Trimming of AT weld should be done by

- A. Chisel B. weld Trimmer C. Both D. None of the above.

What is the approx. weight of 52 kg portion

.....

A. 10 kg B. 11 kg C. 12 kg. D. None of the above.

What is the approx weight of 60 kg portion

A. 11 kg B. 12 kg C. 13.2 kg D. None of the above.

45. What is the dia of thimble for 90outs rail

A. 14-16 mm B. 16 – 18 mm C. 18 - 20 mm D. None of the above.

Ignition match can be ignited from

A. Match box B. Ignitions match C. From fire D. None of the above.

In At welding process what is the role of closing pin

- To hold the portion before melt
- To hold the asbestos powder & slag
- Both above are correct.
- None of the above.

In AT welding process what is the role of asbestos powder & slag.....

- To separate closing pin from portion
- To hold the portion
- Both above are correct
- None of the above.

0° Probe will detect the following defect (s) in rails-

- A. Bolt hole crack
- B. Horizontal flaws
- C. Longitudinal vertical flaw of bigger size
- D. All of these.

The maximum permissible cant on Group 'A' route on B.G. is-

Station no. 22 on a circular portion of a curve is slewed by 60 mm inside. Its effect on Station No. 23 will be-

- A. 60mm outside
- B. 30mm added in versine
- C. 30mm inside
- D. No effect .

The minimum clearance of a check rail at level crossing is-

The minimum distance of a signal post from centre line of track for new work is -

- A. 2360mm
- B. 2135mm
- C. 1680mm
- D. 2535mm

TRC does not measure-

- Riding quality of track
- B. Un, Al, Tw and G defects
- C. Location with worst defects of Un, Al, Tw and G
- Defects due to rail corrugations.

On Indian Railways, the limiting value of ratio of the lateral flange force H/y to instantaneous wheel load Q is kept as-

- 1.4 measured over a duration of 0.10 sec.
- 1.4 measured over a duration of 0.05 sec.

1.0 measured over a duration of 0.10 sec.

1.0 measured over a duration of 0.05 sec.

As per IRPWM, 60 kg 90 UTS rails are to be planned for through renewal after the rails have carried-

On a BG track, Push Trolley inspection by a SSE (P.Way) in-charge should be carried out-

The Inspection schedule for Bridges for AEN/Open Line is-

Once a year before monsoon.

Once a year after monsoon

Twice a year – before as well as after monsoon

None of these.

First rain after normal gap welding can be passed-

After 20 minutes of pouring.

After 30 minutes of pouring.

After ensuring cooling of thermit weld to 50° C.

After grinding of weld.

While repairing a fracture in which a gap 'g' has been created and paint mark made at a distance of 'a' and 'b' from the fracture rail ends- the following relation should hold good if a closure rail piece of length L is inserted along with two normal gap AT welds-

$$a+b+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

$$a+b+g+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

$$a+b-g+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

none of the above

Maximum height of high level passenger platform on BG from rail level is -

The height of signal for a defect in a weld will be as compared to the signal height for a similar defect

in rail- A. More B. less C. Same D. Could be more or could be less.

Maximum permitted lateral wear on tongue rail of a points and crossing is -

Maximum gradient in station yards unless special safety devices are adopted and/ or special rules enforced to prevent accidents in accordance with approved special instruction is-

E. 1 in 80 B. 1 in 200 C. 1 in 400 D. none of the above

A vertical curve is required to be provided at those points of grade where the algebraic difference between the grades is equal to or more than-

A. 10 mm per metre B. 6 mm per metre C. 4 mm per metre D. None of these.

For relaxation of speed restriction imposed for deep screening to normal, following schedule is followed in

case of manual packing-

- A. 21 days schedule
- B. 15 days schedule
- C. 9 days schedule
- D. 7 days schedule.

At the end of tamping work, ramp given should not be steeper than -

CASNUB bogies are fitted in-

- A. Box 'N' wagons
- B. Box wagons
- C. 4-wheeler wagons
- D. All of these .

What is the frequency of Oscillograph car run on Group 'A' route-

- A. Once in a year
- B. Once in Six months
- C. Once in 3 months
- D. No fixed interval .

What is the inspection schedule for ADEN/Open Line for inspection of the following track items. Also write the specific period for inspection, if any-

Push Trolley Inspection:-

.....

.....

.....

.....

.....

Footplate Inspection:-

.....

.....

.....

.....

.....

0° Probe will detect the following defect (s) in rails-

- B. Bolt hole crack
- B. Horizontal flaws
- C. Longitudinal vertical flaw of bigger size
- D. All of these.

The maximum permissible cant on Group 'A' route on B.G. is-

Station no. 22 on a circular portion of a curve is slewed by 60 mm inside. Its effect on Station No. 23 will be-

- B. 60mm outside
- B. 30mm outside
- C. 30mm inside
- D. No effect .

The minimum clearance of a check rail at level crossing is-

The minimum distance of a signal post from centre line of track for new work is -

- B. 2360mm
- B. 2135mm
- C. 1680mm
- D. 2535mm

TRC does not measure-

- Riding quality of track
- B. Un, Al, Tw and G defects
- C. Location with worst defects of Un, Al, Tw and G

Defects due to rail corrugations.

On Indian Railways, the limiting value of ratio of the lateral flange force H_y to instantaneous wheel load Q is kept as-

1.4 measured over a duration of 0.10 sec.

1.4 measured over a duration of 0.05 sec.

1.0 measured over a duration of 0.10 sec.

1.0 measured over a duration of 0.05 sec.

As per IRPWM, 60 kg 90 UTS rails are to be planned for through renewal after the rails have carried-

On a BG track, Push Trolley inspection by a SSE (P.Way) in-charge should be carried out-

The Inspection schedule for Bridges for AEN/Open Line is-

Once a year before monsoon.

Once a year after monsoon

Twice a year – before as well as after monsoon

None of these.

First train after normal gap welding can be passed-

After 20 minutes of pouring.

After 30 minutes of pouring.

After ensuring cooling of thermit weld to 50° C.

After grinding of weld.

While repairing a fracture in which a gap 'g' has been created and paint mark made at a distance of 'a' and 'b' from the fracture rail ends- the following relation should hold good if a closure rail piece of length L is inserted along with two normal gap AT welds-

$$a+b+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

$$a+b+g+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

$$a+b-g+1 \text{ mm} = L+(2 \times 25 \text{ mm}).$$

none of it

Maximum height of high level passenger platform on BG from rail level is -

The height of signal for a defect in a weld will be as compared to the signal height for a similar defect

in rail- A. More B. less C. Same D. Could be more or could be less

Maximum permitted lateral wear on tongue rail of a points and crossing is -

Maximum gradient in station yards unless special safety devices are adopted and/ or special rules enforced to prevent accidents in accordance with approved special instruction is-

J. 1 in 80 B. 1 in 200 C. 1 in 400 D. 1 in 1000. none of it

A vertical curve is required to be provided at those points of grade where the algebraic difference between

the grades is equal to or more than-

- B. 10 mm per metre
- B. 6 mm per metre
- C. 4 mm per metre
- D. None of these.

For relaxation of speed restriction imposed for deep screening to normal, following schedule is followed in

case of manual packing-

- A. 21 days schedule
- B. 15 days schedule
- C. 9 days schedule
- D. 7 days schedule.

At the end of tamping work, ramp given should not be steeper than -

- B. 1 in 250 B. 1 in 500 C. 1 in 750 D. 1 in 1000.

CASNUB bogies are fitted in-

- B. Box 'N' wagons B. Box wagons C. 4-wheeler wagons D. All of these .

What is the frequency of Oscillograph car run on Group 'A' route-

- B. Once in a year B. Once in Six months C. Once in 3 months
D. No fixed interval .

South Western Railway

As per IRPWM, premature TRR can be permitted when no. of existing defective welds per track km are more than

- A. 20 B. 25 C. 30 D. 40

2. As per IRPWM, Maximum permissible cant on Group D route on BG for a curve is

- A. 100 mm B. 140 mm C. 175 mm D. 225 mm

The length of 1750 m radius curve in circular portion is 300m. The shift of curve due to introduction of transition length of 100 m on either side would approximately be -----.

What is station to station versine variation service limit in mm for 110 kmph track on circular curve subject to that limit being more than of 20% average versine on circular curve

The minimum distance of Gatepost from centre line of track on a BG level crossing in m is.....

- A. 2.36 m B. 3.00 m C. 3.36 m D. 4.00 m

The maximum height of medium level passenger platform on BG can be

Medical fitness category of Track machine Operator has to be minimum

- A. A1 B. A2 C. A3 D. B1

8. For a 'C' class level crossing, angle of crossing is 60 degrees and road in approach is class II road having carriage

way width of 5m. The minimum length of check rail rounded off to next higher meter will be

In girder bridges, top of Guard rail should not be lower than that of running rail by more than

Maximum wear on tamping tools, beyond which tools require reconditioning/replacement is

- A. 15% B. 20% C. 25% D. 30%

11. Progress of CSM tamping machine on PSC sleeper track in one effective hour of tamping can be expected as

-
A. 1000 Sleeper B. 1600 Sleeper C. 2000 Sleeper D. 2400 Sleeper

Tamping pressure for tamping PSC sleeper track should be in range.....

- 90 to 100 kg/sq. cm.
- 110 to 120 kg/sq. cm.
- 130 to 140 kg/sq. cm.
- 150 to 160 kg/sq. cm.

Minimum distance of signal post from centre line of track for new line is

- A. 2360 mm
- B. 2135 mm
- C. 2535 mm
- D. 1680 mm

Wheel in a wagon is known to have developed 'Thin Flange' when flange thickness becomes less than

- A. 10 mm
- B. 12 mm
- C. 16 mm
- D. 20 mm

For taking track measurements at accident site, stations shall be marked at a distance of

- A. 1.6 m
- B. 2 m
- C. 3 m
- D. 6 m

TRC does not measure

- Locations with worst defects of Un, AL, Tw, G
- Riding quality of track
- Un, Al, Tw, G defects.
- Defects due to rail corrugation.

Which parameter is having maximum weightage in calculation of Track Geometry index.....

- A. Twist
- B. Alignment
- C. Unevenness
- D. Gauge

Ride index is a measure of

Contractor shall submit monthly statement of claims as specified under following clause of GCC.....

Which of the following acts are not applicable to the contracts as per GCC

- A. Minimum Wages Act
- B. Hours of Employment Regulation Act.
- C. Contract labour Act.
- D. Workmen's compensation Act.

Completion certificate in a works contract is issued after (i) work is completed (ii)

21. works has satisfactorily passed any final test prescribed.....

- A. (i) only
- B. (ii) only
- C. (i) and (ii) only
- D. None of the above.

22. In a bridge having span of 3x9.1m, pier P2 has got tilted due to heavy scour and requires replacement. ORN of the bridge is likely to be

- A. 1-1115444
- B. 1-5444111
- C. 5-1115444
- D. 5-5444111

As per land acquisition act, in case of emergency, land can be acquired urgently under

- A. Section 4 and 6
- B. Section 9 and 17
- C. Section 8 and 10
- D. Section 13

Normally on single line sections, tunnels up to following length do not require provision of artificial or forced ventilation.....

Action to be taken in case of water crossing the danger level in Bridges.....

Speed restriction to be imposed.

Traffic is to be suspended till water level recedes.

Traffic is to be suspended till a responsible person inspects the site and declare it safe for running traffic.

None of the above.

The distressing temperature of LWR with 52 kg rail is.....

tm to tm -5

tm to tm +5

D. None of the above.

Minimum speed restriction to be imposed for Track renewal works is.....

How many charges are levied on deposit/BOT works of ROB/RUBs in case the works is executed by party under Railway supervision.....

How much TVUs are required for cost charging of two lane ROB in lieu of level crossing.....

Competent Authority to appoint an Arbitrator in case of dispute in Works Contract is

Maximum distance between two land boundary stones is

How many Union representatives are allowed to attend PNM meeting at HQ level

Optimum moisture content is the moisture content at which.....

Settlement is maximum

Permeability is more

Dry density is much low

shear strength is less

Question on AT Welding

In new Rail as well as second hand rails how much end bends of the rails in vertical are permitted when checked with one meter straight edge before welding?

- (i) +0.5mm, -0mm in vertical (ii) +0.2mm, -.3mm in vertical
(iii) +0.3mm, -2mm in vertical (iv) 0mm, +.5mm in vertical

In new Rail as well as second hand rails how much end bends of the rails in lateral direction are permitted when checked with one meter straight edge before welding?

- (ii) +0.2mm in lateral direction (ii) +0.3mm in lateral direction
(iii) +0.5mm in lateral direction (iv) All are above right

3. What is the life of portion?

- (i) 2 years (ii) No specific life (iii) 6 Months (iv) 1 year

4. Life of Portion mainly depend upon?

- (ii) Quality of packing (ii) Storage condition
(iii) Quality of packing and storage condition (iv) All of above

5. How rejected portion are to be disposed-off?

By igniting 5 portions at a time in pit away from store

By throwing them away

By dispose off in a pit

By using it in Branch/Yard lines for welding.

Where weld sample tests (Test piece) should be conducted?

At desire by RDSO.

At Zonal CMT's organization or the Flash Butt Welding plant

In RDSO campus

As decided by in charge of the plant.

- (i) 7 Nos. (ii) 8 Nos. (iii) 6 Nos. (iv) 9 Nos.

8. What is the duration for initial course for welders (TW-1)?

- (iii) As decided by TPP/LKO (iv) 3 working
(i) Two Weeks (ii) One Week days

9. What is the duration for Refresher course for welders (WT-2)?

(i) One Week (ii) Two Weeks (iii) As decided by TPP/LKO (iv) 3 working days

What is the duration for supervisor course (TW-3)?

Two Weeks (ii) Two Weeks (iii) As decided by TPP/LKO (iv) 3 working days

Type of competency certificate issued after TW-I course?

Competency for two years

Provisional Competency.

Competency for six months

Competency to do welding independently.

What is the validity of provisional competency certificate?

Valid for executing 50 joints or six months whichever is earlier?

Valid for executing 100 joints or six months whichever is earlier?

Valid for executing 50 joints.

Valid for six months.

What is the validity after Refresher course for welders (TW-2)?

Six Months (ii) One year (iii) Two Years (iv) All are wrong

What is the validity after supervisors course (TW-3)?

Normally, supervisors shall not be required to undergo the course again.

However, they may be sent for course on performance basis.

How Much rail ends are cleaned with Kerosene Oil and steel wire brush?

Minimum 100 mm both side

Minimum 50 mm both side

No need

As decided by site supervisor.

What is the heating time in OXY & LPG in SPW?

(i) 2.0 – 3.5 minutes (ii) 2.0 to 3.0 minutes

(iii) 2.0 – 2.5 minutes (iv) 3.0 – 4.5 minutes

17. What is the minimum distance between AT weld and other joint exist in track?

(i) 2 Mt. (ii) 3 Mt. (iii) 4 Mt. (iv) 4.5 Mt

18. During At weld reaction is ?

(i) Exothermic (ii) Endothermic (iii) No Reaction (iv) Heating

19. What is Pre-heating Temperature of rail ends in AT welding?

(i) $300 \pm 20^{\circ}\text{C}$ (ii) $400 \pm 20^{\circ}\text{C}$ (iii) $500 \pm 20^{\circ}\text{C}$ (iv) $600 \pm 20^{\circ}\text{C}$

20. What action to be taken if slag is not separated within 20 ± 3 seconds?

(i) Tap inside (ii) Tap outside (iii) Good reaction (iv) Tap well in time

21. Internal diameter of thimble in conventional type of crucible is for 72 uts

(i) 14-16 mm (ii) 16-18 mm (iii) 18-20 mm (iv) 20-22 mm

Name the material which is separated from molten steel during chemical reaction

22. of

A.T. welding?

(i) Aluminum (ii) Ferrous Oxide (iii) Aluminum (iv) Ferrous

Finishing tolerance are measured by?

On 30 cm scale (ii) 1 MT Straight edge and 10 cm straight edge

(iii) on 15 cm straight edge (iv) On 30 cm straight edge

24. To take care of differential cooling rail ends of 90 UTS rails are lifted by?

(i) 1 mm (ii) 2 mm (iii) 2 to 2.2 mm (iv) None of it

25. Which gauge is used to measure finishing tolerances?

Tilted
(i) gauge (ii) Filter gauge (iii) Meter gauge (iv) None of it

Early tapping will cause defect

26. of?

(i) No defect (ii) Inclusion of slag (iii) Inclusion of aluminum (iv) Inclusion of ferrous

27. Risers are broken at?

(i) Cold (ii) Hot (iii) After 5 mints (iv) None of it

Pressure of compressed air is kept during preheating?

1 to 2 kg/cm² (ii) .1 to .2 kg/cm² (iii) 2 to 3 kg/cm² (iv) 0.2 to 0.3 kg/cm²

Crucible is repaired by?

Magnasite power (ii) Magnasite Power & Sodium Silicate
(iii) Sodium Silicate (iv) Aluminum powder

30. Function of calcium fluoride/flour spar in portion is?

(i) To separate slag (ii) To separate aluminum (iii)
To separate ferrous (iv) No separation

Finished tolerance on 1 Mt. st. edge at the centre on gauge side shall be?

± 0.2 mm (ii) ± 0.3 mm (iii) ± 0.5 mm (iv) ± 1.0 mm

32. Finished tolerance on 1 MT. long st. edge on surface of head shall be?

(i) 0 to .1 mm (ii) 1 to 1.5 mm (iii) 0 mm (iv) 0 to 1 mm

Finished tolerance on 10 cm long st. edge at the centre on gauge side shall

33. be?

(i) ± 0.4 mm (ii) ± 0.1 mm (iii) ± 0.2 mm (iv) ± 0.3 mm

34. Finished tolerance on 10 cm long st. edge on surface of head shall be?

(i) 0 to 0.1 mm (ii) 0 to 0.2 mm (iii) 0 to 0.4 mm (iv) 0 to 0.3 mm

Min^m. breaking load of 52kg/90 uts weld during transverse breaking load test

35. is?

(i) 90 MT (ii) 100 MT (iii) 110 MT (iv) None of it

36. Min^m. deflection during transverse breaking load test of 52kg/90 uts is?

(i) 5 mm (ii) 10 mm (iii) 15 mm (iv) None of it

37. Min^m. breaking load of 60kg/90uts weld during transverse breaking load test is?

(i) 110 MT (ii) 115 MT (iii) 90 MT (iv) 120 MT

38. To take care of differential cooling rail ends of 72 UTS rails are lifted by?

(i) 0 to 1.5 mm (ii) 1 to 2 mm (iii) 2 to 2.5 mm (iv) 3 to 4 mm

39. The colour of bag containing Portion for 72 UTS?

Green

(i) Pink (ii) n (iii) Red (iv) Black

40. The colour of bag containing Portion of 90 UTS?

Gree

- (i) Red (ii) n (iii) Pink (iv) Black

41. The colour of bag containing Portion for 110 UTS?

Gree

- (i) Red (ii) n (iii) Pink (iv) Black

42. Pressure of LPGH during pre-heating shall be?

2.0 to 2.5 kg/cm (ii) 2.0 to 3.5 kg/cm (iii) 2.0 to 4.5 kg/cm (iv) 2.0 to 5.5 kg/cm
Pressure of Oxygen during pre-heating shall be?

4.0 to 5.0 kg/cm (ii) 5.0 to 6.0 kg/cm (iii) 6.0 to 7.0 kg/cm (iv) 7.0 to 8.0 kg/cm

47. Minimum traffic block required for execution of AT Weld?

- (i) 70 minutes (ii) 70-75 minute (iii) 60 minute (iv) 1 hrs and 30 minutes

What are the recognized systems for pre heating of rails ends for AT welding?

Oxygen-LPG & Compressed air petrol both

Only Oxygen- LPG

Only Compressed air petrol

All are correct

Weather protection of track is required during block for execution of AT Welding?

- (i) Yes (ii) No (iii) As decided by site supervisor (iv) As per site condition

50. Weather traffic block is required during block for execution of AT Welding?

- (i) Yes (ii) No (iii) As decided by site supervisor (iv) As per site condition

51. After welding First train is to be passed after?

20 Minutes from pouring of weld metal.

35 Minutes from pouring of weld metal.

30 Minutes from pouring of weld metal.

25 Minutes from pouring of weld metal.

52. What is the speed restriction to be observed for train passing?

Necessary speed restriction shall be observed until the grinding operation is over (ii) 30 Kmph (iii) 45 Kmph (iv) Not required

Normal Reaction time in SPW technique?

17 ± 3 second (ii) 15 ± 3 second (iii) 23 ± 3 second (iv) 20 ± 3 second

Colour of rail ends becomes after preheating?

How many nos. sleepers should be loosened either side of the proposed weld?

3 sleepers (ii) 5 Sleepers (iii) 2 sleepers (iv) 4 sleepers

Height of crucible is kept from top surface of mould?

30 mm (ii) 40 mm (iii) 50 mm (iv) 60 mm

Torch is kept at height from top surface of rail head?

- (i) 30 to 55 mm (ii) 40 mm (iii) 40 to 45 mm (iv) 45 to 50 mm

Which gauge is used to measure the height of rail at the time of aligning of rails for AT welding?

Step gauge (ii) Vertical gauge (iii) Horizontal gauge (iv) As decided by site supervisor

59. Full form of SPW?

Special pre heated
(i) weld (ii) Short preheated weld
(ii) Short post heated weld (iv) None of above.

60. Grade of 90 UTS rails is?

(i) 880 (ii) 1080 (iii) 710 (iv) None of above

61. Grade of 110 UTS rail is?

(i) 880 (ii) 1080 (iii) 710 (iv) None of above

62. Grade of 72 UTS rail is?

(i) 880 (ii) 1080 (iii) 710 (iv) None of above

63. Defect of short of metal is mainly due to?

(i) Less gap (ii) Excess gap (iii) Less weight of position (iv) None of above

None of above

Defect of low joint is due to?

Excess height (ii) Early trimming of weld
Early grinding of weld
Nil/Less provision of height during alignment

Defect of High joint is due to?

Early trimming of weld
Excess provision of height during alignment.
Early grinding of weld
None of above.

Defect of lack of fusion is mainly due to?

(i) Improper heating (ii) Improper Gap
(iii) Improper grinding (iv) None of above.

65. What is mould waiting time?

(i) 3 to 5 minutes (ii) 4 to 6 minutes (iii) 3.5 to 5.5 minutes
4.5 to 6.5 minutes

66. What is the function of Zircon wash?

To maintain good quality of weld
To achieve good finish of the weld surface
Both above are correct
Both are incorrect

Main advantage of 3-piece P F Mould is ?

To overcome fin defect.
To prevent the flow of molten metal
To make proper weld size
None to the above.

Last flag man is deputed at which distance from last detonator during protection of welding site?

- (i) 30 mts (ii) 50 mts (iii) 45 mts (iv) 60 mts

When was the collar painting done?

- After the welding
After one week of welding
After 15 days of welding
None of the above.

Painting of weld is done up to?

- 10 CM minimum both side of weld & on welded surface.
15 CM minimum both side of weld & on welded surface.
20 CM minimum both side of weld & on welded surface.
None of the above.

Name the paint used in A.T. Welding painting?non corrosion prone area

- (i) Black Paint (ii) Bituminous black IS: 9862-1981
Any type of black paint
None of the above.

Marking on weld should be done which side?

- (i) Non gauge face side of A.T. Weld (ii) Gauge face side of A.T.

On web of non gauge face side of A. T. weld

- On web of non gauge face side of A. T. weld

Marking on weld should be done?

- One centre of the rail head
10 mm below the top surface of rail head
10 mm above the bottom surface of rail head
None of the above.

Weather date of welding is marked on weld?

- (i) Yes (ii) As decided by the site supervisor (iii) No. (iv) None of the above.

Banner flag is planted at a distance of?

- At the site of work
At 1200 mtrs from welding site
At 30 mtrs from welding site
600 Mt. from welding site

76. Painting of weld is done up to?

- 10 CM minimum both side of weld & on welded surface.
15 CM minimum both side of weld & on welded surface.
20 CM minimum both side of weld & on welded surface.
None of the above.

Name the paint used in A.T. Welding painting?

(ii) Black Paint (ii) Bituminous black IS: 9862-1981

Any type of black paint

None of the above.

Marking on weld should be done which side?

(iii) Non gauge face side of A.T. Weld (ii) Gauge face side of A.T.

On web of non gauge face side of A. T. weld

On web of non gauge face side of A. T. weld

Marking on weld should be done?

One centre of the rail head

10 mm below the top surface of rail head

10 mm above the bottom surface of rail head

None of the above.

Weather date of welding is marked on weld?

(ii) Yes (ii) As decided by the site supervisor (iii) No. (iv) None of the above.

Banner flag is planted at a distance of?

At the site of work

At 1200 mtrs from welding site

At 30 mtrs from welding site

600 Mt. from welding site

1st detonator is planted at a distance of?

1200 Mt. from welding site

600 mtrs from welding site

30 Mt. from welding site

None of the above.

83. Distance between the two detonators should be?

(i) 15 MT (ii) 10 MT (iii) 20 MT (iv) None of the above.

84. How many detonators are planted during protection of track for welding site?

(i) One (ii) Two (iii) Three (iv) None of the above.

New AT weld should be entered in TMS by?

Just after the welding

After 8 hrs of welding

After 24 hrs.

None of the above.

New At weld should be entered in TMS by?

(i) Sectional JE/SSE (ii) In-charge SSE (iii) Welder (iv) None of the above.

In how weld time rough grinding should be done of new AT weld?

Just after the welding

After 8 hrs of welding

Within 24 hrs.

None of the above.

88. Till USFD testing of new AT weld what is criteria for joggling/

Joggling with two far end bold

Juggling with two tight clamps
Leave without juggling till its testing
None of the above.

TP Cell

1. What is the service life of 60 kg 90 UTS rail in terms of GMT?
(i) 650 GMT (ii) 600 GMT (iii) 800 GMT (iv) None of the above.
 2. Minimum radius of vertical curve on "A" route? On BG
(i) 4000 M (ii) 3000 M (iii) 2500 M (iv) None of the above.
The Horizontal clearance between guard rails and running rails on bridge in BG
 3. track?
(i) 250 mm (ii) 250 ± 50 mm (iii) 300 mm (iv) None of the above.
 4. Deep screening of ballast should be done?
Once in five
(i) years (ii) Once in Seven Years
(iii) Once in ten years (iv) None of the above.
 5. TVU is abbreviation of?
(i) Track vulnerable unit (ii) Train vehicle unit
(iii) Total vehicle unit (iv) None of the above.
- Frequency of Point & Crossing inspection in passenger and running line by sectional JE/SE/P.Way?
Once in a month by rotation.
Once in 3 months by rotation.
Once in 6 months by rotation
None of the above.
- What is the chord length for measuring lead curvature of a turnout?
6m
10m
3m
None of the above.
- What is the full form UTS of rails?
Ultimate technical Strength
Ultimate tensile Strength
Upper Top surface
None of the above.
- Minimum competent authority for passing train in case of buckling ?
Key man
Mate

JE/P.Way

None of the above.

What is the sectional weight of 52kg rails?

60.34kg/m

51.89kg/m

44.61kg/m

None of the above.

Minimum check rail clearance at level crossing in BG track?

(i) 44 mm (ii) 48 mm (iii) 51 mm (iv) None of the above.

12. Compound Fish Plate is known as ?

(i) Joggled Fish Plate (ii) Combination Fish Plate

(iii) Fish Plate (iv) None of the above.

How much distance of caution board from the affected portion for reduced speed as per para 807 & 808 of IRPWM?

1200 meter

800 meter

1000 meter

None of the above.

What is the design speed of group 'A' route?

(i) 110 kmph (ii) 130 kmph (iii) 160 kmph (iv) None of the above.

What is the sectional weight of 60 kg rails?

60.34 kg/m

51.89 kg/m

60.00 kg/m

None of the above.

Sensitivity setting of USFD machines & Probes as per revised A&C slip No. 3 are done?

Daily (ii) Once in every three day (iii) Once in a week (iv) None of the above.

DFWR defects denoted in field by?

(i) Once circle with red paint (ii) Two cross with red paint

(iii) One cross with red paint (iv) None of the above.

18. Frequency of SKV weld after first periodic testing on routes having >80 GMT?

(i) 1 Year (ii) 1.5 Year (iii) 2 Year (iv) None of the above.

19. Wheel burnt/Scabbing Rails are tested specially with the help of Probes?

None of the

(i) 45°/2MHz (ii) 70°/2MHz (iii) 0°/4MHz (iv) above.

20. Minimum throw of switch used in thick web switch is mm?

(i) 95 (ii) 110 (iii) 115 (iv) None of the above.

The frequency of track recording car for group "A" & "B" routes is once in months?

(i) 3 (ii) 4 (iii) 6 (iv) None of the above.

23. Pre heating time for air petrol welding of rails is?
 (i) 10 to 12 (ii) 5 to 10 (iii) 7 to 13 (iv) None of the above.
24. Minimum length of fencing at a level crossing shall bem?
 (i) 7 (ii) 6 (iii) 10 (iv) None of the above.
 The distance of W/L boards for unmanned level crossings on single line section
25. where visibility is clear should be m?
 (i) 350 (ii) 600 (iii) 500 (iv) 1200

If code of a fracture is OFW-422 then it means?

- AT welding with transverse crack.
- Flash butt welding with transverse crack.
- At welding with horizontal crack.
- None of the above.

45° probe is used for detecting defect in;

- (i) FB weld (ii) AT weld (iii) FB weld, AT weld & SEJ (iv) All above.

By 0° probe in AT weld testing with normal gain setting?

- Area below N. axis can be tested
- Area below N. axis can not be tested
- Only web below N. axis can be tested.
- All above are correct.

29. Tandem rig test with 450 probe for AT weld detects?

- Horizontal longitudinal defect in weld
- Vertical Oriented defect in AT weld
- Transverse defect in AT weld
- None of above

30. Total no. of probes fitted on digital double rail tanser for rail testing are ?

- (i) 12 (ii) 8 (iii) 14 (iv) none of it

If digital DRT is calibrated for 300 mm longitudinal wave using 00 double crystal probe then 60kg rail peak will appear at ?

- (ii) 5.2 (ii) 5.7 (iii) 7.8 (iv) none of it

Additional gain of 10 db is used for testing?

- 'D' marked rails on single lines.
- 'D' marked rails on double lines.
- Testing on single line and 'D' marked rails on double/multiple lines section.
- None of the above.

The increased gain of 10 dbs for single line & 'D' marked rails on double/multiple lines section?

- (i) Defect in weld (ii) Defect in weld (iii) for both defects on weld & rails (iv) None of the above.

On Rajdhani roués testing frequency of rail testing for rail section of 60kg with annual GMT 80, will be?

- (i) 4 months (ii) 1 1/2 months (iii) 1 month (iv) None of the above.

Sensitivity calibration against temp. variation shall be carried out?

At least once in month

Quarterly

At least once in six months

None of the above.

The gap between probing face and probing shoe should be?

- (i) 0.4 mm (ii) 0.2 mm (iii) 0.6 mm (iv) None of the above.

37. In Indian Railway how many Gauges of Track has been adopted?

- (i) 1 (ii) 3 (iii) 2 (iv) 4.

38. What is the Highest speed of train in Indian Railway?

- (i) 140 kmph (ii) 120 kmph (iii) 160 kmph (iv) 130 kmph

39. How many divisions in Northern Railway?

- (i) 5 (ii) 4 (iii) 6 (iv) 3

40. What do you mean by BG?

- (i) Big Gauge (ii) Broad Gauge (iii) Buffer gauge (iv) None of above

What do you mean by RDSO?

Research & Development standard organization

Railway Development and standard organization

Regional Development and standard organization

None of the above.

Where is the Head Quarter of Northern Railway?

- (i) New Delhi (ii) Lucknow (iii) Mumbai (iv) Calcutta

43. What is the highest post in Railway?

- (i) General Manager (ii) Chief Engineer (iii) Chairman Railway Board
Divisional Railway Manager.

What is the standard distance between lines in Broad Gauge?

- (i) 1670 mm (ii) 1676 mm (iii) 1665 mm (iv) 1680.

45. What do you mean by LWR?

- (i) Long welded Rail (ii) Long weld able Rail

- (iii) Linear welded Rail (iv) None of the above.

46. On the basis of temperature how many zones are in Indian railway?

- (i) 2 (ii) 6 (iii) 4 (iv) 7

What is the minimum distance centre to centre of straight tracks for new works/alterations to existing works?

- (i) 4265mm (ii) 3660mm (iii) 5300mm (iv) 4365mm.

What is the full form of OMS used for track recording?

Outer most Surface

Oscillation Monitoring system

Official measurement system

Only measurement system

What is the frequency of track recoding of the sections having speed more than 110 kmph to 130 kmph?

- (i) 4 months (ii) 2 months (iii) 6 months (iv) 3 months.

What is the full form of PQRS used for Track renewal works?

Plasser quick Relaying system

Please quick return services

Poor quality renewal system

None of the above.

51. Minimum radius of curve on Broad gauge?

- (i) 175 meter (ii) 215 meter (iii) 146 meter (iv) 200 meter

52. Minimum check rail clearance at level crossing?

- (i) 45 mm (ii) 51 mm (iii) 50 mm (iv) 57 mm

53. Maximum height above rail level of high passenger Platform?

- (i) 860mm (ii) 900mm (iii) 840mm (iv) 875mm

Minimum clearance between toe of open switch and stock rail for new

54. works?

- (i) 115mm (ii) 120mm (iii) 95mm (iv) 110mm

55. What is the formula of TGI for track recording?

- (i) $UI+4TI+6GI+AI/10$ (ii) $2UI+TI+GI+6AI/10$.

- (ii) $3UI+TI+2GI+5AI/10$ (iv) none of it

56. What is the limit of Unevenness of A category of track?

- (i) 0 to 10 mm (ii) 0 to 5 mm (iii) 0 to 6 mm (iv) none of it

57. What is the difference between rail flange of 60 kg & 52 rail sections?

- (i) 20 mm (ii) 18 mm (iii) 14 mm (iv) 16 mm

Minimum wing rail clearance opposing nose of crossing on Fan shaped

60. turnout?

- (i) 45 mm (ii) 40 mm (iii) 41 mm (iv) 44 mm

Overall length of fan shaped 1 in 12

61. turnout?

- (i) 39975 mm (ii) 41004 mm (iii) 28613 mm (iv) None of above.

62. What is the full form of TGI?

- (i) Track Geometry Index (ii) Track General Index

- (iii) Track gravity Index (iv) None of the above.

63. Permissible speed of Turnout with 1 in 8.5 curved switches?

- (i) 40 kmph (ii) 25 kmph (iii) 15 kmph (iv) 20 kmph

64. How many green flags are with Patroller during Hot weather patrolling?

- (i) 02 (ii) 03 (iii) 01 (iv) None of above.

65. Minimum distance of gate post from centre line of nearest track on BG is?

- (i) 2 meters (ii) 3 meters (iii) 4 meters (iv) 6 meters

66. Minimum distance of duty hut from centre line of nearest track on BG is?

- (i) 2 meters (ii) 3 meters (iii) 4 meters (iv) 6 meters

67. Level crossing is classified on the basis of?

- (i) Class of road (ii) TVU (iii) Volume of road traffic (iv) Volume of rail traffic
The Assistant Divisional Engineer should inspect the equipment at every manned

68. level

crossing on the subdivision once in

- (i) 2 months (ii) 3 months (iii) 4 months (iv) 6 months.

On Broad gauge tracks whistle indicator shall be provided at a distance of from level crossing along the track?

- (i) 400 meters (ii) 600 meters (iii) 350 meters (iv) 500 meters.

On broad Gauge tracks Banner flag at a level crossing shall be provided at a distance of from ends of check rail before opening the gate for road traffic?

- (i) 5 meters (ii) 3 meters (iii) 6 meters (iv) 30 meters

71. Fish plated joint shall be avoided in check rails and on the running rails within from the end of level crossing?

- (i) 3 meters (ii) 5 meters (iii) 10 meters (iv) 12 meters

72. Stop boards on either side of approaches of all unmanned level crossings shall be provided at from the centre line of nearest track?

- (i) 3 meters (ii) 5 meters (iii) 6 meters (iv) 10 meters

Speed breaker of approved design shall be provided on either side of level crossing at within?

- (i) 5 meters (ii) 15 meters (iii) 20 meters (iv) 30 meters

Minimum length of check rail for square crossing shall be more than the width of gate?

- (i) 1 meter (ii) 2 meters (iii) 3 meters (iv) 5 meters

75. The minimum and maximum clearances of check rails at all BG level crossings shall be?

- (i) 51 to 57mm (ii) 44 to 48 mm (iii) 41 to 45 mm (iv) 55 to 70 mm

The Height Gauge for a level crossing should be located at least from the gate post?

- (i) 3 meters (ii) 5 meters (iii) 8 meters (iv) 10 meters

Traffic census at a level crossing shall be done by?

A team of SSE/P.WAy and SSE/Works.

A team of SSE/P.WAy and Traffic Inspector.

A team of SSE/P.WAy and Signal Inspector.

A multidisciplinary team of SSE/P.Way, Signal Inspector and Traffic Inspector

Frequency of overhauling for a level crossing with PRC sleepers shall be?

- (i) Every year (ii) Every 2 year (iii) Every 3 year (iv) none of it

79. Minimum depth of space for wheel flange from the rail level on BG track is?

- (i) 44mm (ii) 48mm (iii) 38mm (iv) 51mm

Which of the statements with regard to formation is correct?

One of the functions of the formation is to facilitate drainage.

Width of bank for double railway line is 12.155 meters.

Width of bank for double railway line is 11.750 meters.

Centre to centre of formation for double line is 4.725 meters.

Earthwork in embankment for railway with manual compaction should be done in layers not exceeding

- (i) 15 centimeter (ii) 25 centimeter (iii) 35 centimeter (iv) none of it

To provide inverted filter to improve the bearing capacity of soil the liquid limit of blanketing?

- 5(ii) 20 (iii) 27 (iv) 35

Bridge

1. Initial inspection for PSC girders/welded girder bridges as per IRBM 1998?

Within one year of installation.

- (ii) Once in 3 years (iii) Once in 2 years (iv) Once in 5 years.

2. Periodical inspection of welded girders?

(iii) Once in 2 years (iv) Once in 5

- (i) Once in 1 year (ii) Once in 3 years years.

3. Periodical inspection of PSC & Composite girders?

- (i) Once in 3 years (ii) Once in 5 years (iii) Once in 2 years (iv) Once in 1 year.

Date of painting of steel work should be painted in white on the out side of the left girder?

Of the 1st span only

First span only but on all spans for imp. Bridges.

Of the all spans

None of the above.

Camber in steel triangulated girder is provided to compensate for deflection?

- (i) Under Live load and dead load (ii) Under live load (iii) Under dead load (iv) None of the above.

The length of the snap head rivet shank is, when L=length of the rivet, G=Length of grip in mm; D=Dia of rivet in mm?

$L=G+1.5D+1$ mm; D=Dia of rivet in mm

$L=G+0.5 D+ 1$ mm

$L=G+0.5 D$

None of the above.

The length of the countersunk head rivet shank is, when L=length of the rivet, G=Length of grip in mm; D=Dia of rivet in mm?

$L = G + 0.5D + 1$ mm for every 4 mm of grip or part thereof.

$L = G + 0.5 D + 1$ mm

$L = G + 0.5 D$

None of the above.

A bridge is generally specified as "Br. No. 180 (5x9.10m G) at km 345/5-6".....

Effective span

Width of bridge

Clear span

Overall length of bridge.

Strength of a bridge is termed a MBG loading of 1987. MBG refers to

Model broad Gauge

Modified Budget Grant

Model Budget grant.

Modified Broad Gauge.

In a temporary signaling arrangements for a bridge work in BG section, caution board shall be placed in advance of m from start of the bridge/work spot?

(i) 30m (ii) 1200m (iii) 677m (iv) 1000m

Free Board is the level difference between formation level and

(i) Rail level (ii) HFL (iii) Bed Level (iv) Danger Level

12. Minimum free Board required in a bridge is

(i) 1 m (ii) 1.20 m (iii) 600mm (iv) 300 mm

Vertical Clearance (VC) in water way bridges is the level difference between

HFL and Formation level

Bed level and bottom of superstructure.

HFL and bottom of superstructure

Rail level and formation.

Depth of construction in a girder bridge means the depth from?

RL to HFL

RL to top of bed block

RL to bottom of bed block

RL to bed level.

Skew of a bridge is the angle between?

C.L. of water course to C.L. of track

C.L. of water course to C.L. of pier

C.L. of water course/road to normal (perpendicular) of C.L. of track

C.L. of abutment to C.L. of pier

Angle of crossing of a bridge is the angle between?

C.L. of water course/road to C.L. of track

C.L. of water course to C.L. of pier

C.L. of water course to normal (perpendicular) of C.L. of track

C.L. of abutment to C.L. of pier.

In a single span bridge, the clear span is the distance between.....

Centers of Abutments
Inner faces of Abutments
Outer faces of Abutments
Width of Abutment.

Sub structure of a bridge does not

18. include?

- (i) Abutment (ii) Girder/Slab (iii) Piers (iv) Wing and return walls

19. Super structure of a bridge includes?

- (i) Piers (ii) Girder/Slab (iii) Abutment (iv) Bed block

20. Bearings are provided in bridges to transfer the load to?

- (i) Super structure (ii) Track (iii) Embankment (iv) Sub structure.

21. Wing walls and return walls are provided to retain?

- (i) Earth on approaches (ii) Ballast (iii) Track on approaches (iv) None.

In a temporary signaling arrangements for a bridge work in BG section, speed board shall be placed in advance of 30 m from the

- (i) C.L. of the bridge (ii) Termination (iii) Start of the bridge/work spot
Caution Board.

In shallow type girders, the rail level shall be...

- 25mm above the top flange of girder
near the bottom of the girder
near the middle of the girder
Below the girder

The load transferred from rails to bottom flanges is in

- (i) Deck type (ii) Through type girder (iii) Semi-through type girder
Plate girder.

The load transferred from rails to web of girders is in

- (i) Deck type girder (ii) Through type girder (iii) Semi-through
type
girder (iv) Plate girder.

The medium to transfer loads from superstructure to substructure is called.....

- (i) Abutment (ii) Bed block (iii) Bearing (iv) Pier

Temporary staging for casting PSC Box Girder for a ROB over the Railway span shall be removed?

- After hardening of concrete
Before hardening of concrete
During concreting
After stressing the cables

The Horizontal clearance of edge of foot over bridge structure from face of platform is

- (i) 6525mm (ii) 3660mm (iii) 5330mm (iv) 5300mm.

29. The vertical clearance of bottom most foot over bridge structure above rail level is?

- (i) 6525mm (ii) 5300mm (iii) 5330mm (iv) none of these

The minimum vertical clearance of foot over bridge gangway is.....

- 2100mm (ii) 3660mm (iii) 6525mm (iv) 2710mm

The level of guard rail in bridges shall not be lower than that of running rail by more than?

- (i) 25mm
- (ii) 55mm
- (iii) 75mm
- (iv) 65mm

The guard rail is provided in bridges to.....

- Prevent derailment in bridges.
- Prevent falling of vehicles during derailment.
- Have good riding
- Guide the wheels

Steel channel sleepers are provided in bridges with superstructure of

- (i) PSC slab
- (ii) PSC girder
- (iii) Steel girder
- (iv) RCC Box

Minimum earth cushion required over RCC box is

- (i) 300mm
- (ii) 600mm
- (iii) 0mm
- (iv) 1000mm

The minimum vertical clearance above R.L. to bottom of ROB near the yard shall be...

- (i) 6525mm
- (ii) 5870mm
- (iii) 2360mm
- (iv) 6250mm

The minimum vertical clearance in RUB in rural area shall be

- (i) 5870mm
- (ii) 6525mm
- (iii) 5000mm
- (iv) 5500mm

The minimum vertical clearance in RUB in urban area shall be

- (i) 5870mm
- (ii) 6525mm
- (iii) 5000mm
- (iv) 5500mm

Height gauge need to be provided in

- (i) ROB
- (ii) RUB
- (iii) FOB
- (iv) Fly over

The CRS sanction is required in the ROB project for construction of

- (i) Approach spans
- (ii) Laying road
- (iii) Railway spans
- (iv) None

The temporary girders are generally required for the bridge work

- (i) On traffic condition
- (ii) Under mega block
- (iii) In cut and open method
- (iv) In new route

The diameter of hole for 20 dia rivet shall be

- (i) 23 mm
- (ii) 18 mm
- (iii) 21.5mm
- (iv) 22mm

IS code for steel structures is

- (i) IS 236
- (ii) IS 226
- (iii) IS 456
- (iv) IS 800

Pipe culvert is a/an

- Major bridge
- (ii) Minor bridge
- (iii) Unimportant Bridge
- (iv) Important bridge

One of the following works does not require CRS sanction

- Regirdering/Rebuilding
- (ii) Erection of new FOB
- Erection of platform shelter
- Pipe line crossing.

Facia boards of platform shelters shall have a minimum horizontal clearance of

from C.L. of track at a minimum height of 4.61 m above RL.....

- (i) 2360 mm
- (ii) 3660 mm
- (iii) 3000 mm
- (iv) 1600mm.

At FOBs in electrified section the electrocution by live OHE wires is prevented by providing

- (i) Smoke guards
- (ii) Roofing
- (iii) Bottom lateral bracings
- (iv) Protective screens.

One of the following is a shallow foundation.....

- (i) Pile foundation (ii) Raft foundation
- (iii) Under reamed pile foundation (iv) Well foundation

48. Minimum vertical clearance (VC) for a slab/girder bridges with discharge of 0-30 cumecs is

- (i) 300mm (ii) 1500mm (iii) 1800mm (iv) 600mm.

For end bearing piles, the minimum spacing of piles of diameter 'D' shall be

- (i) 3d (ii) 2d (iii) 2.5d (iv) 5d

50. Weep holes are provided in

- (i) Piers (ii) Trestle piers (iii) Foundation (iv) Abutments

The pressure on soil worked out shall be the SBC of the soil?

- (i) More than (ii) Equal (iii) Not equal to (iv) less than

..... soil has the least SBC of the soil?

- (i) Hard moorum (ii) Stiff clay (iii) Black cotton soil (iv) Soft rock

The minimum edge distance for rivets of diameter 'd' in steel plates shall be

- (i) 2 x d (ii) 3 x d (iii) 1.5 x d (iv) 2.5 x d

54. The minimum pitch of rivets of diameter 'd' in steel plates shall be

- (i) 2 x d (ii) 3 x d (iii) 1.7 x d (iv) 2.5 x d

Rail cluster, as temporary arrangement can be used upto a span of.....

- (i) 1.5 m (ii) 3.0 m (iii) 3.6 m (iv) None of these

56. The minimum caution specified over an arch bridge is

- (i) 0.5m (ii) 0.9m (iii) 1.0m (iv) 1.2m

In case of water crossing danger level in bridges

Speed restriction be imposed.

Traffic be suspended till water recedes

Traffic be suspended till a responsible person inspects the site and declares it safe for running traffic

Bridge watchman is to be posted.

58. From fatigue considerations, bridges are designed for

- (i) 2 million cycles (ii) 1 million cycle (iii) 10 million cycles (iv) 3 million cycles

59. Structural steel for railway loading above 0°C temperature conforms to

- (i) IS 2062 grade A (ii) IS 2062 grade B (iii) IS 2062 grade C (iv) None

Bearings for plate girders are.....

Roller bearing

Elastomeric bearings

Centralized articulated bearings

None of the above.

Bentonite is used in pile driving

To facilitate pile driving

To enable proper pile concreting

To stabilize the bore hole walls

None of the above.

In a routine pile load test the test load is.....

1.25 times the design load.

1.5 times the design load.

1.75 times the design load.

2 times the design load.

In the eight digit code given in the numerical rating system the first digit is called

.....

(i) URN (ii) ORN (iii) CRN (iv) None of above.