

FOUNDATION COURSE
Question Bank
CIVIL ENGINEERING

Fill in the Blank

- Rails are rolled in a length of _____m.
- UTS stands for.....
- Life of 52 Kg. Rail (90 UTS) is approximately -----GMT.
- Life of 60 Kg. Rail (90 UTS) is approximately -----GMT.
- Testing of rails/joints to identify cracks etc. is done by _____testing
- SPURT car is used for.....
- Two different sections of rails are joined by using-----.
- Fish plate required to be provided to join fracture in case of Thermit weld is -----

- Approximate weight of PRC Sleeper is-----Kg.
- Minimum sleeper density to be provided on Gr. A route is -----
sleepers/Km.
- Recommended sleeper density to be provided on Gr. A route is -----
sleepers/Km.
- Minimum size of Ballast used on track is about ----- mm size.
- Maximum size of Ballast used on track is about ----- mm size.
- Extra ballast is required on -----(inside/outside) of curve.
- Steepest Gradient which exists in a particular section is known as -----
-----.
- What is full form of USFD
- What is full form of GMT
- What is full form of LWR
- What is weight of 1m piece of 60 Kg rail
- How is rail designated
- How much is ballast cushion provided on Group “A route
- Average speed of Patrolmen is taken as _____Km/Hrs. while
making Patrol chart.
- Maximum length to be travelled by a patrolmen should not exceed.....km
in his total duty hrs.
- In a section having triple Beat and double frequency of Patrolmen, the
requirement of patrolmen would be -----_nos.
- In a section having double Beat and double frequency of Patrolmen, the
requirement of patrolmen would be -----_nos.
- In the event of abnormal rainfall during day or night patrolling is organised over
the affected length by the order of -----
- Pair of _____rails with _____rail is known as point.
- Permissible speed on 1 in 8 1/2 curved switch is-----kmph

- Permissible speed on 1 in 12 curved switch is-----kmph
- Term CMS crossing is used for
- Manual packing is not recommended for-----sleeper track.
- Maximum progress of packing by latest CSM machine is about -----
--- sleepers per hr.
- To accommodate expansion/contraction in LWR breathing length _____
joint is provided.
- For LWR minimum sleeper density shall besleeper per KM.
- In conventional maintenance system through packing of entire track is completed
once inYrs.
- In conventional maintenance system overhauling of entire track is completed
once inYrs.
- Track laid with 3 rail panel is known as.....
- Welded rail track for a very long length (5-7 Km) is
called.....

Questions

- What are different type of Rails in use.?
- Indicate approximate life of various sections of Rails.
- What is USFD? How it is done?
- What is LWR? Why and how is LWR de-stressed ?
- Explain the function of SEJ.
- What are different types of sleepers?
- Mention advantages and disadvantages of various types of sleepers.
- Functions of various Rails and Sleeper fastenings.
- What is sleeper density? What are the recommended and minimum sleeper density for
various category of routes.
- What are the functions of Ballast?
- What quality and size of ballast is specified to be used?
- What is ballast cushion? How it is measured? What are recommended values?
- What is minimum sleeper density for LWR
- Mention factors on which speed for particular track depends
- Four basic parameters for maintenance of Track Geometry are
: _____
: _____
: _____
: _____
- Write down steps (activities) required to be taken in **Through packing**.
- What is difference between Throughpacking and Overhauling?
- What are the activities in Annual cycle of Maintenance.?
- Why Machine maintenance is required. ? Briefly mention about various Tie Tamping
machines in use on IR and what is their output.?
- What are the various types of Patrolling in vogue.
- What are the duties of patrolman?
- What are the equipment to be carried by the Patrolmen?

- How is Patrol chart prepared? Mention criteria to be followed while preparing the patrol chart.
- Explain the situation where Curves are required to be provided.
- What is the relationship between degree of curve and radius of curve (Write formulae only).
- Give relationship (Equation) between super-elevation , Radius of curve and Speed (velocity) of train.
- What is Cant deficiency and cant excess? What are the permissible values for them?
- Explain the need for transition curve?
- What are the various components of Points and crossings.?
- How are they designated?
- What are the Main factors which are responsible for limiting speed on Turn out .?
- How much speed is permitted for various type of P&C.
- What are the different Classes of Level Crossings.
- What are the items to be checked during inspection of Level Crossing.
- Draw sketch showing location of Temporary speed restriction Boards for work of long duration for following cases where train is required to stop at work site where train is required to pass at restricted speed
- Draw sketch showing protection of work for short duration for the train for following cases where train is required to stop at work site where train is required to pass at restricted speed
- What is Schedule of dimensions. Values for important schedule of dimensions.
- What is ODC.?
- What are different classes of ODC? How they are moved? What precautions are to be taken?
- Who is competent to grant approval for movement of various classes of ODC?
- Name different types of elastic fastening used in LWR
- What are requirement of a good ballast