

GUJARAT TECHNOLOGICAL UNIVERSITY

3rd Semester Civil Engineering – PDDC

Subject Code & Name : X30602 – Railway, Bridges and Tunnels

Assignment

Date : 21-08-2014

Tutorial 1 :

1. What are function of rail transport at national level?
2. Draw the sketch of broad gauge & permanent way with dimension.
3. Explain coning of wheels.

Tutorial 2 :

1. Describe components of railway track.
2. Draw the sketch of flatfooted rail with dimension.
3. Describe various types of Sleeper.
4. What is sleeper Density?
5. Draw the sketch of Concrete Sleeper & Metallic Sleeper.

Tutorial 3 :

1. What is Gauge? What are the advantages of uniformity of gauge?
2. Draw the sketch of loading gauge.

Tutorial 4 :

1. What is necessity of geometric design for railway track? Write example based on geometric design.

Tutorial 5 :

1. Draw the sketch of left hand for out showing wall components.
2. Explain briefly : Arch Bridge, Suspension Bridge, Afflux, Scour Depth, Design Flood, Waterway, Economic Span, Substructure, Superstructure, Movable Bridge & Bascule Bridge.

Tutorial 6 :

1. Draw the sketch of arch and slab bridge.
2. Explain abutment & pier in Bridge in detail with sketch.
3. Enlist example of bridges for Length, Width & height.

Tutorial 7 :

1. What is necessity of tunnel? Draw the sketch of different tunnels.
2. Explain transferring of centreline to the inside of tunnel.
3. Explain shaft internal with drawing.
4. Explain different tunnelling methods in soft ground.
5. Describe lighting & Ventilation in Tunnel.