

## \*) Precautions in construction of Tunnels.

- ① Depending on the purpose of tunnel, shape should be decided
- ② Cross-sectional dimensions of the tunnel should be decided to achieve economy in its construction
- ③ In order to make proper use of labour and equipment, sequence of operation must be well planned previously
- ④ Labour should be well organized to maintain continuous progress of the tunnelling operations
- ⑤ The use of outdated and unsuitable tools must be avoided
- ⑥ Each and every operation must be completed in scheduled time as far as possible.
- ⑦ Loading and hauling of muck should be carried out efficiently
- ⑧ In order to achieve economy, the sequence and type of lining should be determined in advance
- ⑨ Selection of multipurpose and uniform type of equipment should be made, according to the size, shape of the tunnel.
- ⑩ Pattern of blasting the material in different locations should be decided for maintaining speed of driving and safety.



# G.P.V

Civil ENGG. Sem IV

Assignment

Sub :- Transportation Engg (Railway)

- ① What is Sleeper? Describe its type.
- ② Describe the Sleeper Density.
- ③ What is gradient? Describe its type.
- ④ Explain the permanent way.
- ⑤ Explain the inspection and maintenance of point and crossing.