

## Transportation Engineering

Q.1] Attempt any three  $\Rightarrow$  (3x8=24M)

Q.1-a] Write the merits & demerits of railway.

$\Rightarrow$  Merits of railway  $\Rightarrow$

- 1) Transportation cost is low for common people.
- 2) Good for long journey.
- 3) Comfortable & safe journey due to railway seats.
- 4) It is time saving.
- 5) Power required for railway is comparatively less.
- 6) Railway play an important role in the industrialization of country.
- 7) Heavy goods & raw material can be transported easily.

Demerits of railway  $\Rightarrow$

- 1) Destination point & starting points are fixed & cannot be altered.
- 2) It can not provide door to door service.
- 3) There is restriction on the path of railway lines.
- 4) Noise pollution increases due to railway.
- 5) Special turning devices are required.

Q.1-b] Why cross-drainage work is necessary?

$\Rightarrow$  Necessity of cross-drainage work  $\Rightarrow$

- 1) To reduce excess moisture content CD work is necessary.
- 2) Due to poor drainage, waves & corrugations are formed & to reduce this CD work is necessary.
- 3) It helps to maintain the continuity in transportation.
- 4) It provide the continuous access to the surrounding villages & towns even at the time of flood & heavy rain.
- 5) It maintain the gradient in undulating area in case of railway.
- 6) Due to moisture content strength of soil reduces & for maintaining the strength CD work is necessary.

