

**BASIC
TRANSPORTATION
ENGINEERING
(3340603)**

ASSIGNMENT-1

INTRODUCTION OF ROADS

1. Importance of roads.
2. Factor affecting road alignment.
3. Classification of roads.
4. Advantages of roads.
5. Types of road alignment and Requirement of good alignment

ASSIGNMENT-2

ROAD GEOMETRICS

1. Short note on cross section of road and its component with fig.
2. Short note on camber with fig.
3. Enlist types of sight distance and explain stopping sight distance.
4. Explain in brief super elevation.
5. Explain widening on curves.
6. Explain types of gradient.

ASSIGNMENT-3
ROAD MATERIALS & CONSTRUCTION
ASPECTS

1. Difference between flexible pavement and rigid pavement.
2. Define soil stabilization and necessity of soil stabilization.
3. Explain road side arboriculture.
4. Deficiencies in flexible pavements.
5. Explain maintenance of bituminous roads.

ASSIGNMENT-4

DRAINAGE AND MAINTANANCE OF ROAD

1. Explain importance of highway drainage.
2. Give the requirement of good drainage system.
3. Explain methods of subsurface drainage system for roads.
4. Expain maintance of surface and subsurface drainage system.

ASSIGNMENT-5

INTRODUCTION OF RAILWAYS

1. Comparison of roadways and railways.
 2. Role of civil engineers in construction and maintenance of railways.
 3. Components of railway track.
 4. Define gauge. Give difference types of gauge. List the factor governing the selection of type of gauge.
 5. Short note on rails.
 6. Short note on sleepers.
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ASSIGNMENT-6

POINTS, CROSSING & YARDS

1. Define crossing. Components & Characteristics of good crossing.
2. Explain types of crossing.
3. Give the requirement of railway station.
4. Functions of goods & passenger tracks.
5. Give function of railway station.
6. Short note on turn table

ASSIGNMENT-7

MAINTANCE OF RAILWAY TRACK

1. Give the surface defects & their remedial measures.
2. List tools for railway track maintenance & give function of each.
3. Explain type of maintenance.

ASSIGNMENT-8

INTRODUCTION OF BRIDGES

1. Draw a neat sketch of bridge and explain its components.
2. Types of bridge as per alignment.
3. Define low cost bridge & explain types of culverts.

ASSIGNMENT-9

INVESTIGATION FOR BRIDGE

1. List the factors affecting selection of bridge site.
2. Give list of data to be collected for location of bridge site.
3. Write short note on:
 - ✓ Economic span
 - ✓ Linear water way
 - ✓ Efflux
 - ✓ Free board

ASSIGNMENT-10
BRIDGE STRUCTURE AND
SUPERSTRUCTURE

1. Give the function of pier, abutment and weep holes.
2. Explain types of bearings.
3. Explain Importance of bearings.

ASSIGNMENT-11

MAINTANANCE OF BRIDGE

1. Explain various defects in bridge.
2. Give the factor affecting deterioration of bridge components.
3. List the data to be collected during inspection of a bridge and superstructure.