5th sem/VST/2022(W)
(Theory - 3)

Full Marks - 80

Time - 3 Hours

Answer any five questions including Q. No. 1 & 2.
The figures in the right-hand margin indicate marks.

1. Answer all questions: [2 x 10=20]

(a)Differentiate between skew alignment and square alignment of bridge.
(b)Define gauge of a railway. Mention different types
of gauges.
(c)What is the maximum value of super elevatio provided in a track as per railwayboard?
(d) Classify different types of bridge.
(e) What do you mean by waterway? (List the different types of rail joints.
(g) Write Dicken's and Ryve's formula for the determination of flood discharge.
(h) Define Cant and Cant deficiency.
(i) Define creep of rails and buckling of rails.
(j) Explain heel block and distance block

2. Answer any six questions. (5x6=30)

(a) What is wing walls? Explain its types.
(b) Mention the function of ballast and state the requirements of good ballast.
(c) Write down the requirement and characteristics of an ideal bridge site.
(d) Give brief description of various types of cause
(e) Explain afflux with Marrimum's formula and
Molesworth's formula.
(f) Describe the methods of welding of rails.
(g)Write the advantages of Railway.

3.Answeranythree. (3x10=30)

Whatare the different types of bridge foundations? Describe open foundation and raft foundation with neat sketch[10
4. Explain the functions of components of a permanent way with a leveling sketch? [10
5.Explain pile driving methods.[10
6. Explain various types of crossing in use on Indian Railways.[10
7. Write down the functions and explanatory notes for the types of piers.[10