

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course: Advanced Transportation Engineering	Semester: VII
Program: B Tech Civil Engineering	Time 03 hrs.
Course Code: CIVL 4007	Max. Marks: 100

SECTION A

S. No.		Marks	CO
Q 1	Size of tunnel is to be determined based on _____ of traffic, Size of _____ required, _____ on lining, Type and condition of _____ system, _____ facilities inside the tunnel.	5	CO1
Q 2	Name these locomotives based on gauge and representing service - XB, YA, YC, XC, ZA	5	CO2
Q 3	Basic requirement for development of high speed tracks is _____ of tracks, use of better designed _____ stock, Adopting superior type of _____, Better telecommunication and _____ arrangements, Modern techniques of _____.	5	CO3
Q 4	The Rail Specification (T-12-2009) specifies quality of _____, manufacturing _____, _____ composition, acceptance _____, _____ criteria	5	CO4
Q 5	Heading and drift gives information for _____ stratification, _____ of layers, underground _____ levels, presence of _____ gases, structure and _____ of rock	5	CO1
Q 6	Provide full form of the following terms PSC, W, ST, GMT, UTS	5	CO2

SECTION B

Q 7	Classify tunnels and describe their applicability in civil engineering construction.	10	CO1
Q 8	Explain the forces acting on the railway track with neat sketches.	10	CO2
Q 9	Explain the advantages of electrical traction compared to other tractions.	10	CO3
Q 10	Describe the necessity of acceptance tests of rails.	10	CO4
Q 11	Explain the reasons for rail failures,	10	CO3

SECTION-C

Q 12	a. Explain three tier system of track maintenance for on-track machine units (OMU), mobile maintenance units (MMU), and sectional gangs. (OR) i) Elaborate track and safety tolerances for track geometry. ii) Describe the modern method of track maintenance.	20	CO4
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