Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: Final Year B.Tech	**School of Technology**	**Department: Civil Engineering**
Course Code: CET441	**Course Title: Pavement Materials**	**Semester : VII**
Day : Tuesday **Date : 29/12/2020**	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions arecompulsory.
2) Assume Suitable Data Wherever Necessary.

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any Two)**–			
a)	Elaborate Desirable properties of Road Aggregates	8	L_2	CO1
b)	Explain Marshall method of bituminous mix design.	8	L_2	CO2
c)	State requirements of bituminous mixes	8	L_2	CO2
Q.2	**Answer the following (any two)** –			
a)	How would you evaluate Viscoelastic properties of bituminous mixture	8	L_3	CO3
b)	Design the pavement for construction of a new two lane carriageway for design life 15 years using IRC method. The initial traffic in the year of completion in each direction is 150 CVPD and growth rate is 7%. Vehicle damage factor based on axle load survey = 2.5 std. axle per commercial vehicle. Design CBR of subgrade soil=5%.	8	L_4	CO3
c)	Explain procedure for design of flexible pavement.	8	L_3	CO3
Q.3	**Answer the following (any two)** –			
a)	Describe design approach for rigid pavements.	9	L_3	CO4
b)	Explain smart and self-healing materials.	9	L_2	CO4

c)	Enlist and explain commonly recovered construction materials.	9	L_2	CO4

*****