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**
Course Code: CET 427	**Course Title: Design of RCC Bridges**	**Semester : VII**
Day : Thursday **Date : 04.03.2021**	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions arecompulsory.
2) Assume suitable data wherever necessary.
3) Use of IRC 6, IRC 5, IRC112:2012 is permitted.

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any Two)**–			
a)	Inscribe note on selection of bridge site.	8	L_2	1
b)	Describe the IRC Standard for wind loads and longitudinal forces and the conditions under which each should be used.	8	L_3	1
c)	Classify the components of bridge explain with neat sketch?	8	L_4	2
Q.2	**Answer the following (any One)** –			
a)	Design a deck slab for the following particulars: - Clear span – 5.50 m, Width of the footpath- 1 m on either side, Wearing coat 100 mm. Loading – IRC Class AA (tracked), Material M35 concrete and Fe 415 steel	18	L_4	3
b)	Design and detail interior panel of dimension 2.5mx3.5m for a bridge with following data Carriageway width 7.5m Footpath 1.0m wide Loading IRC Class AA trackedConcrete M35andd steel Fe 415, No of longitudinal girders 3, Spacing between girders 2.5m, Assume wt. of railing as 0.7 kN/mWt. of wearing coat 1.0 kN/m	18	L_4	4
Q.3	**Answer the following (any two)** –			
a)	Draw a typical section through a Well Foundation for a bride pier. And explain in detail well foundation.	8	L_2	5
b)	Classify the different types of loads and forces to be considered in design of a bridge foundation?	8	L_3	5
c)	Describe the different types of bearing used in bridge construction.	8	L2	6

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