SSIPMT

Department of Civil Engineering

Class Test – II Session: APR-MAY 2023 Month – April

Subject –STRUCTURAL ENGG. DESIGN-IV

Semester – 8th Code – D020811(020)

Time Allowed: 2 hrs. Max Marks: 40

Note: - Part A is Compulsory. Attempt any one question from part B & C.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	CO's
	PART -I			
A.	Writedown the different classification of RCC water tank?	[4]	Understand	CO3
B.	Write the design steps of design of Intze type tank. Write the design steps for the following: Design of top dome, Top ring beam, cylindrical side walls, Bottom ring beam connecting side walls with conical dome and design of conical dome.	[16]	Analyze	CO3
C.	Design circular tank of dia. 5.75 m with a dome of rise 0.90 m. The cylindrical part has a height of 3 m. The tank is supported on brick masonry walls all around. Allow a live load of 1340 Nm2 on the dome surface. Use M 20 concrete and Fe 415 steel.	[16]	Analyze	CO3
	PART II			
A.	Differentiate between pre-tensioning and post-tensioning.	[4]	Understand	CO5
B.	Design a solid slab bridge for class A loading for the following data:(i) Clear span 4.5 m (ii) Clear width of roadways -7 m. (iii) Average thickness of wearing coat = 80 mm Use M 20 concrete. Take unit weight of concrete 24000 N/m3	[16]	Analyze	CO4
C.	A simply supported pre-stressed concrete beam of rectangular cross section 400 mm x 600 mm is loaded with a total UDL of 256 KN over a span of 6 m. Sketch the distribution of stresses at the mid-span and end sections if the pre-stressing force is 1920 KN and the tendon is: (a) concentric, (b) eccentric, located at 200 mm above the bottom fibre	[16]	Analyze	CO5

Shri Shankaracharya Institute of Professional Management &Technology, Raipur

Department of Civil Engineering

Class Test – II Session: Jan-June 2022-23 Month – April

Semester – 8th Subject – Construction ManagementSub.Code –D020822(20)

Time Allowed: **2 hrs.** Max Marks: **40**

Note: - In Part I & II, Question A is compulsory and attempt any two from B, C & D.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	CO's
	Part I			
A.	Discuss the concept of functional design.	[4]	Understand	CO3
B.	Illustrate the importance of innovation in economic feasibility.	[8]	Understand	CO3
C.	What do you mean by feasibility? How design feasibility plays an important role in construction.	[8]	Apply	CO3
D.	Discuss the factors affecting job productivity.	[8]	Understand	CO4
	Part II			
A.	Briefly describe the general objectives of inventory control.	[4]	Understand	CO4
B.	Explain factors affecting job site productivity efficiency.	[8]	Understand	CO4
C.	Describe the historical cost data and its importance in estimation of construction cost.	[8]	Understand	CO5
D.	Explain different types of construction cost estimates.	[8]	Understand	CO5

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Shri Shankaracharya Institute of Professional Management & Technology
Department of Civil Engineering
Class Test – II Session: April-May 2023 Month – April
Semester – 8th Subject – Air Pollution & Control Measures
Code – D000814(020)
Time Allowed: 2 hrs. Max Marks: 40

Note: - In Part I & II, Question A is compulsory and attempt any two from B, C & D.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	CO's
	Part I			
A.	Discuss briefly the removal techniques adopted for particulate matter.	[4]	Understand	CO3
B.	Explain in brief effect of SOx on plants, animal, human and material.	[8]	Understand	CO3
C.	Write short note on: i) Effect of NOx in living organism ii) NOx emission sources	[8]	Understand	CO3
D.	Describe the mechanism of deterioration in polluted atmosphere.	[8]	Understand	CO4
	Part II			
A.	Discuss briefly the symptoms of chronic effect of air pollution.	[4]	Understand	CO4
B.	Explain the following: i) Photochemical smog ii) Major air pollution disaster episodes and its effects.	[8]	Understand	CO4
C.	Describe the principle and construction of fabric filters with well labelled diagram. What are the factors affecting the efficiency of fabric filters.	[8]	Understand	CO5
D.	Explain the terms: i) Acid Rain ii) Ozone layer depletion iii) Greenhouse effect iv) Electrostatic precipitator.	[8]	Understand	CO5