



Shri Shankaracharya Institute of Professional Management & Technology

Department of Civil Engineering

Class Test – I Session: Jan – Jun, 2020 Month – February

Semester – 8TH Subject – Construction Management Code- 300807(20)

Time Allowed: 2 hrs Max Marks: 40

Note: - In Part A & B, Question 1 is compulsory and attempt any two from 2, 3 & 4.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	COs
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PART A

1	Explain project management.	[4]	Understand	CO1
2	Explain the role and function of a project manager.	[8]	Understand	CO1
3	Illustrate are the duties of project manager for construction project.	[8]	Apply	CO1
4	Discuss the various stages in life cycle of construction project.	[8]	Understand	CO1

PART B

5	Explain the term Bid shopping.	[4]	Understand	CO2
6	Explain the following terms. (a) Turnkey operation leadership (b) Owner – contractor Interrelation	[8]	Understand	CO2
7	Discuss on effects of project risk on organization.	[8]	Understand	CO2
8	Discuss the legal and regulatory requirement of the project.	[8]	Understand	CO2



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Department of Civil Engineering

Class Test – I Session: Jan – June, 2020 Month – February

Semester – 8th Subject – WSM, Code – 320850(20)

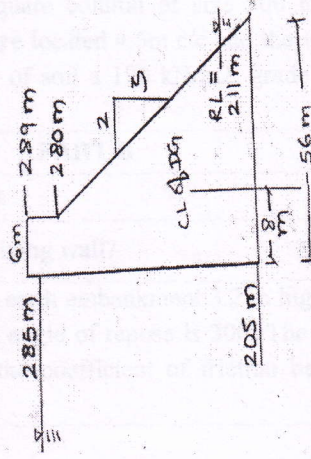
Time Allowed: 2 hrs Max Marks: 40

Note:- Attempt any 5 questions.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	COs
Part- I				
(1)	How will you identify the types of soil erosion in a watershed, explain.	[8]	Apply	CO2, CO3
(2)	Propose a scheme for enlisting be the characteristics of watershed.	[8]	Apply	CO2, CO3, CO5
(3)	Demonstrate water harvesting in urban areas? Illustrate deferent methods.	[8]	Apply	CO1, CO2, CO5
(4)	Identify the importance of GIS for planning of watershed?	[8]	Apply	CO2, CO5
(5)	Analyse various activities involved in watershed management and write the objectives of watershed management?	[8]	Apply	CO1, CO2, CO5
(6)	What is a unit watershed? Propose a classification for watershed?	[8]	Understand	CO2, CO3, CO4
(7)	Write notes on: (a) Contour bunding (b) Check dams (c) Hydrological Properties of hard rock terrain	[8]	Understand	CO2, CO4, CO5

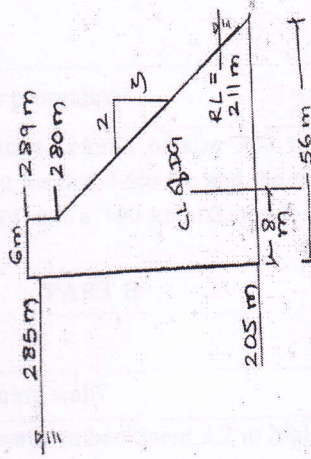


Note: - Solve each unit for 20 marks.

Q. No	Questions	Marks	Levels of Bloom's taxonomy	COs
Part- I				
(1)	(a) Define gravity dam and earth dam. (b) Define drainage gallery and state its functions.	[4]	Remember	CO1
(2)	Derive an expression for the limiting height of a gravity dam also differentiate between low and high gravity dam. Figure shows the section of gravity dam built of concrete. Calculate (neglecting earthquake effect) i) The maximum vertical stresses at the heel and toe of the dam. ii) The major principle stresses at the toe of the dam. Weight of concrete = 23.5kN/m ³ , Assume unit length of dam. Allowable stress in concrete may be taken 2500 kN/m ² .	[8]	Apply	CO1
(3)		[16]	Apply	CO1
(4)	Explain the various modes of Failure of gravity dam? Discuss each of them.	[8]	Understand	CO1
Part- II				
(1)	Define Energy dissipater and stilling basin.	[4]	Remember	CO2
(2)	Explain the different types of spillway, and draw neat sketches for all types, showing the different parts of each. Design a suitable section for the overflow portion of a concrete Gravity dam having the downstream face sloping at a slope of 0.7 H: 1 V. The design discharge for the spillway is 8000 m ³ /s. The height of spillway crest is kept at R.L. 204.0 m the average River bed level at the site is 100.0 m. the spillway length consists of spans having a clear width of 10 m each. Thickness of each pier may be taken to be 2.5 m.	[8]	Understand	CO2
(3)	Explain the various energy dissipaters that are used for energy dissipation below overflow spillway under different relative position of T.W.C and T.H.C	[16]	Create	CO2
(4)	Explain the various energy dissipaters that are used for energy dissipation below overflow spillway under different relative position of T.W.C and T.H.C	[8]	Understand	CO2



Note: - Solve each unit for 20 marks.

Q. No	Questions	Marks	Levels of Bloom's taxonomy	COs
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Class Test – I Session: Jan – Jun, 2020 Month – February
Semester – 8th Subject – SED-IV Subject Code – 320831(20)
Time Allowed: 2 hrs Max Marks: 40

Note: - All Questions are compulsory.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	COs
PART A				
1.	When combined footings are provided	[3]	Understand	CO1
2.	Explain two way shear or punching shear calculation procedure	[3]	Understand	CO1
3	Design a combined rectangular footing for two square column of size 300 mm X 300 mm carrying axial load of 650 kN each. The columns are located 4.5m c/c and the width of footing each limited to 2.1 m. Take safe bearing capacity of soil a 190 kN/m ² , grade for concrete is M20, grade of steel reinforce cement as Fe 415.	[14]	Create	CO1
PART B				
1.	Give formulas for checking stability of retaining wall.	[3]	Understand	CO2
2	How to fix the minimum depth of foundation for retaining wall?	[3]	Understand	CO2
3	Design a T shaped cantilever retaining wall to retain earth embankment 3.2 m high above ground level. The unit weight of earth is 16KN/m ³ and the angle of repose is 30°. The embankment is horizontal at top. SBC of soil is 170KN/m ² and the coefficient of friction between soil and concrete is 0.5 Use M20 mix and fe415 steel.	[14]	Create	CO2



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1.	Give formulas for checking stability of retaining wall.	[3]	Understand	CO2
2	How to fix the minimum depth of foundation for retaining wall?	[3]	Understand	CO2
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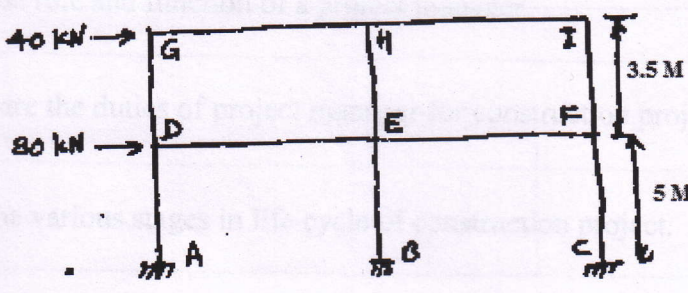
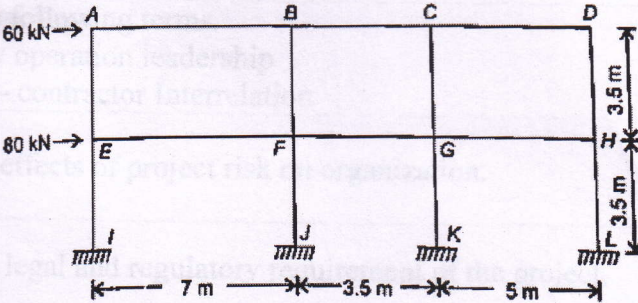
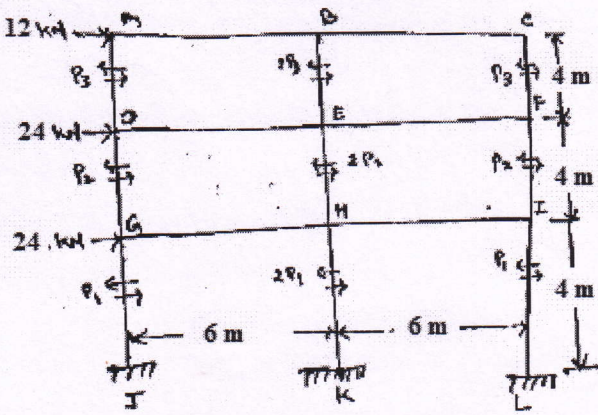
Department of Civil Engineering

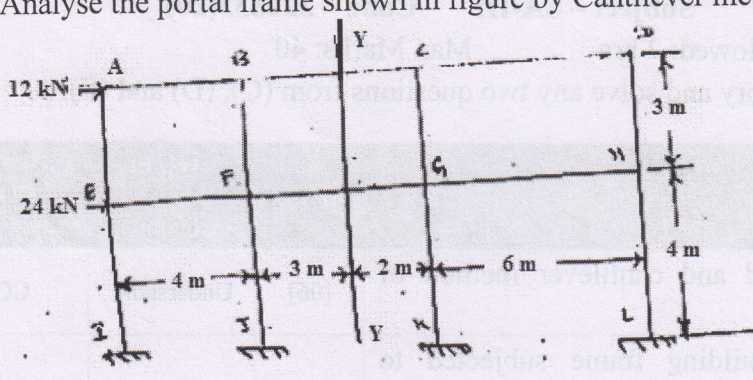
Class Test – I Session: Jan – Jun, 2020, Month – February

Semester – 8th Subject – SA-III Code – 320833(20)

Time Allowed: 2 hrs Max Marks: 40

Note: - Question (A) and (B) is compulsory and solve any two questions from (C), (D) and (E).

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	COs
(A)	Discuss the assumptions of portal method and cantilever method of approximate analysis.	[06]	Understand	CO1
(B)	<p>Using cantilever method, analyse the building frame subjected to horizontal forces as shown in figure.</p> 	[06]	Analyze	
(C)	<p>Analyse the building frame, and determine the moment, shear, and axial force subject to horizontal forces as shown in figure using portal method.</p> 	[14]	Analyze	CO1
(D)	<p>Analyse the portal frame shown in figure by Portal method.</p> 	[14]	Analyze	CO1

(E)	<p>Analyse the portal frame shown in figure by Cantilever method.</p> 	[14]	Analyze	CO1
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