



**NAVACHANA
UNIVERSITY**
a UBC recognized University

School: School of Engineering and Technology
Program/s: BTech Civil
Year: 4th **Semester:** 8th
Examination: End Semester Examination
Examination year: May - 2023

Course Code: CMP 801 **Course Name:** CASAD
Date: 16/05/2023
Time: 10:00 am to 12:00 pm

Total Marks: 40
Total Pages: 01

Instructions:

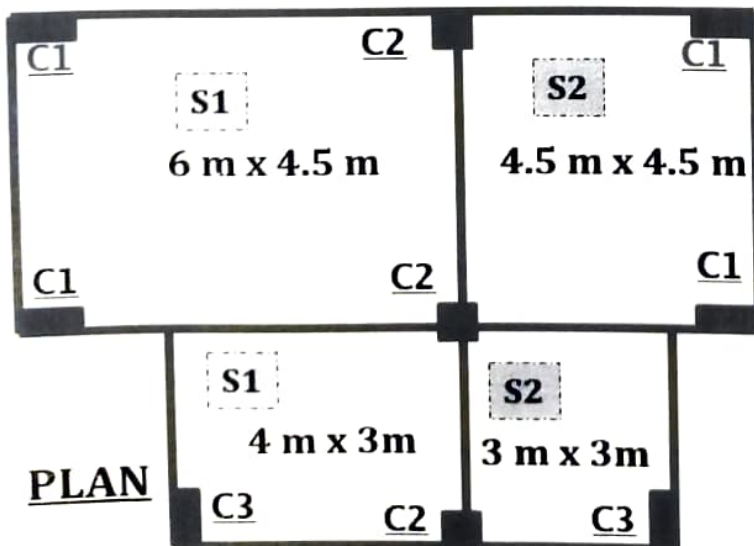
Write each answer on a new page

Use of calculator is permitted

Make suitable assumptions wherever necessary

Use of Codes IS 1893 is permitted

Q. No.	Details	Marks	COs*	BTL#
Q.1	Attempt the following (any 3)	15		
1)	Explain the impact of flat slab system v/s flat slab with shear wall system.		CO1	BT4
2)	Express with sketch why an outrigger system should be preferred focusing on its behaviour and optimum position.		CO1	BT2
3)	Explain infilled frame system in detail.		CO1	BT1
4)	Which code is used for determining Base shear? Write the steps for determining base shear.		CO3	BT2, BT3
Q.2	State the types of loading applied in STAAD Pro. Describe step wise how seismic loading is generated in software STAAD Pro?	5		
	OR			
Q.3	State the various support which could be assigned with STAAD Pro software. Also explain importance of each support stating when it should be assigned.	5	CO5	BT4
Q.4	For a 50 storey building of 3.5 m story height, determine the design acceleration coefficient considering various soil conditions and masonry infill conditions.	5	CO2	BT5
Q.5	With the context of your internship, explain how can this course have an impact on practical learning? Enlist the points which you directly could correlate.	5	CO5	BT6
	Find the centre of mass & centre of stiffness for the given example for Fig.:	10	CO4	BT 1,2, 3,4



Notes:

- All distances are c/c.
- All wall 30 cm thick
- Slab thickness 125 mm

➤ Size of Columns:

- C1 = 0.60 m x 0.40 m
- C2 = 0.45 m x 0.45 m
- C3 = 0.3 m x 0.6 m

➤ Loading on slab:

- S1 = 2.5 kN/m²
- S2 = 1.5 kN/m²