

UNIT WISE QUESTION BANK
23CE503: STRUCTURAL ENGINEERING -I
UNIT-I

S.No.	Questions	BTL	CO	PO
Part-A(Short Answer Questions)				
1	Define structure and its components.	L1	CO1	PO1
2	What are the different types of loads?	L1	CO1	PO1
3	Define dead load and live load.	L1	CO1	PO1
4	What is meant by equilibrium?	L2	CO1	PO1
5	Define characteristic strength of materials.	L1	CO1	PO1
6	What is RCC?	L1	CO1	PO1
7	Differentiate between WSM and LSM.	L2	CO1	PO1
8	What are partial safety factors?	L2	CO1	PO1
9	Define neutral axis.	L1	CO1	PO1
10	What are stress block parameters?	L2	CO1	PO1
11	Define structure and its components.	L1	CO1	PO1
12	What are the different types of loads?	L1	CO1	PO1

Part-B(Long Answer Questions)				
1	Find the moment of Resistance of T beam having the following data Bf=780mm, d=400mm, bw=240mm, Ast=6-16mm dia mild steel, Df=150mm, use M20 concrete.	L3	CO1	PO2
2	A concrete beam has 230mm breadth and 500mm effective depth. Design the beam if it is subjected to a super imposed bending moment of 250kNm. Use M20 and Fe500.	L5	CO1	PO3
3	A beam section 300mm wide and 500mm deep is reinforced with a tension reinforcement of 2800mm ² at an effective cover of 300mm. Determine the ultimate moment of resistance of beam section. Use M20 concrete and Fe415.	L3	CO1	PO2
4	Design a reinforced concrete slab to carry a live load of 5kN/m ² on an effective span of 4m. Use M20 concrete and Fe415 steel. Sketch reinforcement details.	L5	CO1	PO3
5	A RCC beam is simply supported on two masonry walls 6m apart carrying 20kN/m load. Design the beam with shear and deflection checks using M20 and Fe500.	L5	CO1	PO3