



**NARSIMHA REDDY
ENGINEERING COLLEGE**

UGC AUTONOMOUS ACCREDITED BY NBA & NAAC WITH A-GRADE

UNIT WISE QUESTION BANK

25CE301 BUILDING MATERIALS AND CONCRETE TECHNOLOGY

UNIT-5

S.NO	QUESTIONS	BT	CO	PO
Part-A(Short Answer Questions)				PO4
1	Define nominal mix and design mix of concrete.	L1	CO5	PO1
2	What are the factors influencing concrete mix design?	L1	CO5	PO2
3	Define target mean strength of concrete.	L2	CO5	PO3
4	What is the significance of water–cement ratio in mix design?	L1	CO5	PO6
5	State the importance of workability in concrete mix design.	L1	CO5	PO5
Part-B(Long Answer Questions)				PO1
1	Explain the concept of concrete mix design. Differentiate between nominal mix and design mix concrete.	L2	CO5	PO3
2	Discuss the factors influencing concrete mix design such as strength, durability, workability, water–cement ratio, and aggregate properties.	L1,L2	CO5	PO2
3	Explain the Indian Standard method of concrete mix design as per IS 10262:2019.	L1,L2	CO5	PO3
4	Describe the procedure for determination of target strength, water–cement ratio, and workability in concrete mix design.	L1,L2	CO5	PO4
5	Explain the role of air content and aggregate grading in concrete mix proportioning.	L2	CO5	PO6
6	Illustrate the concrete mix design procedure with a suitable numerical example using IS method.	L1	CO5	PO2
7	Discuss the acceptance criteria for concrete as per IS 456:2000 and explain the importance of quality control and quality assurance in concrete works.	L3	CO5	PO5
8	Explain the ingredients, properties, advantages, and applications of Self-Compacting Concrete (SCC).	L2	CO5	PO6
9	Describe the ingredients, properties, advantages, and applications of Lightweight Concrete, High Performance Concrete (HPC), and Roller Compacted Concrete.	L3	CO5	PO2
10	Explain Fiber-Reinforced Concrete with its types of fibers, properties, advantages, and engineering applications.	L1	CO5	PO4

Blooms Taxonomy Level (BT) (L1–Remembering;L2–Understanding;L3–Applying;L4– Analyzing;L5–Evaluating; L6–Creating)