23CE503: STRUCTURAL ENGINEERING – I (RCC)
SHEAR,BOND,TORSION
UNIT II

Part A: Objective Questions (MCQs)

1. Shear failure in beams is:
A) Ductile
B) Brittle
C) Elastic
D) Plastic
Answer: B

2. Minimum shear reinforcement is provided to:
A) Increase moment
B) Avoid sudden failure
C) Reduce load
D) Increase span
Answer: B

3. Development length depends on:
A) Stress in bar
B) Diameter
C) Bond strength
D) All
Answer: D

4. Torsion reinforcement consists of:
A) Longitudinal bars
B) Stirrups
C) Both
D) None
Answer: C

5. Nominal shear stress is:
A) V/bd
B) M/bd^2
C) T/bd
D) None
Answer: A

6. Anchorage length is required for:
A) Strength
B) Bond

C) Stability
D) None
Answer: B

7. Shear reinforcement is designed when:
A) $\tau v > \tau c$
B) $\tau v < \tau c$
C) $\tau v = 0$
D) None
Answer: A

8. Bond stress is:
A) Tensile stress
B) Shear stress
C) Compressive stress
D) None
Answer: B

9. Torsion causes:
A) Bending
B) Twisting
C) Compression
D) Shear only
Answer: B

10. Shear cracks are:
A) Vertical
B) Inclined
C) Horizontal
D) Circular
Answer: B

Part B: Fill in the Blanks

1. Shear stress is denoted by _____. Answer: τ

2. Development length is denoted by _____. Answer: Ld

3. Torsion causes _____ in members. Answer: Twisting

4. Shear failure is _____ type. Answer: Brittle

5. Bond stress develops between _____ and concrete. Answer: Steel

6. Stirrups resist _____. Answer: Shear

7. Anchorage ensures proper _____. Answer: Bond

8. Nominal shear stress = _____. Answer: V/bd

9. Shear reinforcement prevents _____ failure. Answer: Sudden

10. Torsion reinforcement includes _____ bars. Answer: Longitudinal