UNIT–IV: TRANSFER OF PRESTRESS AND ANCHORAGE ZONE STRESSES

1. In pretensioned members, prestress is transferred through _____.
A) Friction B) Bond
C) Welding D) Bolting
Answer: B

2. The length required to transfer prestress from steel to concrete is called _____.
A) Effective length B) Transmission length
C) Span length D) Anchorage length
Answer: B

3. Transmission length depends on the _____ between steel and concrete.
A) Bond B) Density
C) Weight D) Color
Answer: A

4. Flexural bond stress develops due to _____.
A) Bending action B) Shrinkage
C) Temperature D) Creep
Answer: A

5. IS Code provides guidelines for _____ length.
A) Effective B) Transmission
C) Span D) Bearing
Answer: B

6. Anchorage zone stresses occur in _____ members.
A) Pretensioned B) Post-tensioned
C) RCC D) Composite
Answer: B

7. The end block is provided near the _____.
A) Midspan B) Support
C) Anchorage D) Neutral axis
Answer: C

8. Stress concentration is highest near the _____.
A) Midspan B) End block
C) Neutral axis D) Centroid
Answer: B

9. Guyon's method is used for analyzing _____ stresses.
A) Flexural B) Anchorage zone
C) Shear D) Torsional
Answer: B

10. Magnel's method deals with _____.
A) End block analysis B) Beam design
C) Slab design D) Creep analysis
Answer: A

11. Zienlinski's method is used for _____ analysis.
A) Deflection B) End block
C) Flexure D) Torsion
Answer: B

12. Rowe's method is related to _____.
A) Composite beams B) Anchorage zone stresses
C) Shrinkage D) Creep
Answer: B

13. Bursting stresses occur in the _____ zone.
A) Shear B) Anchorage
C) Compression D) Tension
Answer: B

14. Spalling stresses are generally _____ stresses.
A) Tensile B) Compressive
C) Shear D) Bearing
Answer: A

15. Anchorage reinforcement is provided to resist _____ stresses.
A) Thermal B) Bursting
C) Shrinkage D) Creep
Answer: B

16. Prestressing force enters concrete through the _____.
A) Tendon B) Anchorage device
C) Stirrup D) Spacer
Answer: B

17. End block analysis helps in designing _____.
A) Anchorage reinforcement B) Slabs
C) Columns D) Footings
Answer: A

18. Bursting tension develops perpendicular to the direction of _____.
A) Compression B) Tension
C) Shear D) Bending
Answer: A

19. Transmission length is usually expressed in terms of tendon _____.
A) Diameter B) Weight
C) Density D) Length
Answer: A

20. IS provisions ensure safe transfer of _____.
A) Load B) Prestress
C) Temperature D) Shrinkage
Answer: B