

profile tends.

- Q.31 Explain concept for bending stress and shear capacity in simply supported beam?
- Q.32 What is pre-tensioning and its suitability with diagram?

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. (3x10=30)

- Q.33 Explain advantages of prestressed concrete in comparison with RCC application of prestressed to various building elements.
- Q.34 Comparison between pre-tensioning and post-tensioning method with diagram.
- Q.35 Calculation of shear capacity in rectangular simply supported beams with straight and parabolic profile of tendons.
- Q.36 What is anchorage slip? How do you compute the loss of stress due to anchorage slip?

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6th Sem. /

Subject : Prestressed Concrete

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

- Q.1 Circular pre-stressing is advantageous in _____.
- Q.2 High tensite steel is basically_____.
- Q.3 In a post-tensioned beam there will be loss of stress due to_____.
- Q.4 What is high strength bars?
- Q.5 What do you mean by strands?
- Q.6 What do you mean by pre-stressing?
- Q.7 What is precast element?
- Q.8 Loss of stress due to friction depends upon_____.

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- Q.9 Prestressing is economical for members of_____.
- Q.10 In axially prestressed members, the concrete is under_____.

SECTION-B

Note:Very short answer type questions. Attempt any ten questions out of twelve questions.
(10x2=20)

- Q.11 What is the basic concept of prestressed concrete?
- Q.12 Discuss prestressing steel wires and high strength bars.
- Q.13 What is tendon profile?
- Q.14 What is post-tensioning method?
- Q.15 What is friction loss in prestress concrete.
- Q.16 What is traight profile of tendons?
- Q.17 What is parabolic profile of tendons?
- Q.18 Explain strands and high strength bars?

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- Q.19 What is precast element?
- Q.20 What is tress-strain relationship?
- Q.21 What is circular prestressing?
- Q.22 Explain elastic shortening in prestress?

SECTION-C

Note:Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

- Q.23 Explain advantages and disadvantages of prestressed concrete as compare to RCC.
- Q.24 What is circular prestressing and its application.
- Q.25 What is elastic shortening in prestress and creep in prestress?
- Q.26 Explain post-tensioning and its suitability.
- Q.27 What are stresses in high strength steel?
- Q.28 Explain parabolic profile of tendons with diagram.
- Q.29 What is materials requirement for pre-stressing concrete- high strength concrete?
- Q.30 Comparison between straight and parabolic

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