

Total No. of Questions – [4]

Total No. of Printed Pages – 1/1

G.R. No.

P118-112 (T1)

**OCT. 2018 / IN -SEM (T1)**

**F. Y. M. TECH. (CIVIL-Structures) (SEMESTER - I)**

**COURSE NAME:** Critical Review of Design of Concrete Structures **CODE:** CVPB11182  
**(PATTERN 2018)**

Time : [1 Hour]

[Max. Marks : 20]

(\*) Instructions to candidates:

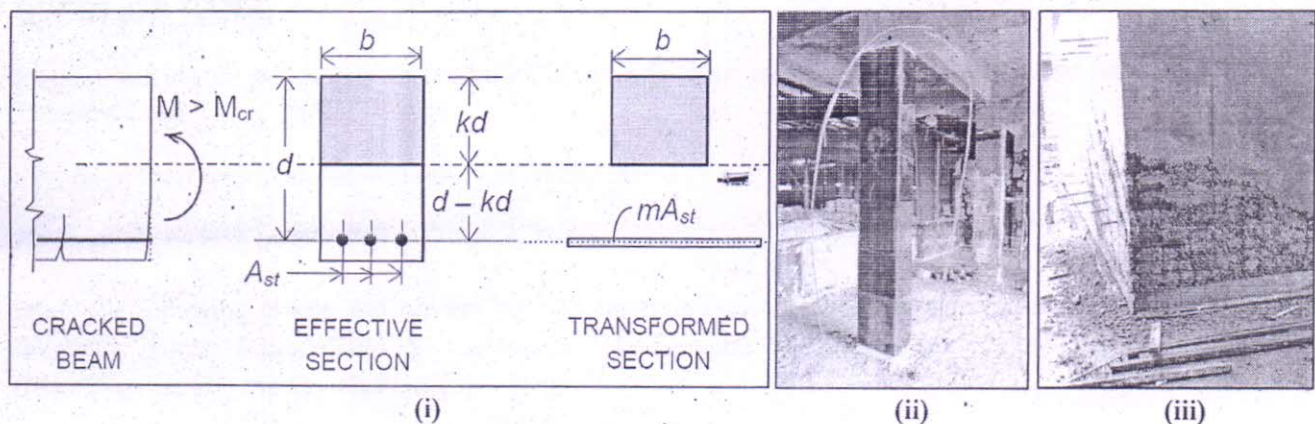
- 1) Answer Q.1 OR Q.2, Q.3 OR Q.4
- 2) Figures to the right indicate full marks. Point wise allocated marks are in [ ]
- 3) Use of scientific calculator is allowed
- 4) Use suitable data & draw sketches where ever required

Q1) Explain any one *hands-on* exercise you did in the class related to the coursework (i.e. model making, free body diagrams, innovations, Analysis & Design Parameters, Value Engineering, Stability of chair, sketching, *Techtionary*, etc.). Present your answer in bulleted description including, but not limited to the following points; Preface/Title & Key-words [1], Objectives [1], Discussions [3], Interpretations [2], Flow-Chart/Sketches [2], and Conclusions [1]. [10]

OR

Q2) Explain various basic loads on a RCC Building with examples [3]. Estimate your own contact pressure when standing on floor [2]. How many persons of mass 60 kgs each will be required to stand in 1 sq.m area to produce Live Load of – a) 3 kN/sq.m; b) Service LL considering (a) and; c) Ultimate LL considering (a)? [2] Comment on each case [3] [10]

Q3) Inspect the following figures and report your observations, and interpretations on any two figures. Present your thoughts in bulleted description on the following points; Key-words & Key Observations [2], Thoughts & Discussions [4], Interpretations [2], and Conclusions [2]. [10]



OR

- Q4) a) Explain with suitable sketch/s the importance of Neutral-Axis (Reference Points – Composite action, Concrete-to-Rebar Bond, Compressive & Tensile Stresses, and Crack propagation). [6]
- b) Why a structure designed for higher Ultimate factored loads need to be rechecked for relatively lower Service loads? Explain with an example. [4]

**\*\* EXPLAIN RATIONALLY and DRAW SKETCHES | GOODLUCK \*\*\***

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