

Seat  
No.

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महात्मा - 006

## Life Cycle Costing of Infrastructures

P. Pages : 1

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve any five questions.
5. Assume suitable data if required.
6. Figures to right indicate full marks.
7. Used of pocket calculator is allowed.
8. Use of probability table is allowed.

1. Explain project influence cost relationship for a construction project based on its life cycle costing. Discuss advantages of LCC. 20
2. Explain with examples how the following parameters affect LCC. 20
  - i) Time value of money.
  - ii) Fluctuating market scenario.
  - iii) Inflation.
  - iv) risks.
3. Discuss the various types of costs with practical examples. To what extent does a project need to be crashed ? Explain. 20
4. Discuss advantages and limitations of the present worth analysis as compared with other methods. 20
5. Explain following risk assessment methods. 20
  - i) Scenario Analysis.
  - ii) Sensitivity Analysis.
  - iii) fuzzy logic applications.
6. State different LCC methods and explain any three methods in brief. 20
7. Explain the following. 20
  - i) Profitability Index method.
  - ii) Operational costs for HVAC.
  - iii) WLC software.
  - iv) Macro approach for risk analysis.

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