



RAN-5822

MCA - IIIrd Semester Examination

March / April - 2019

Paper No. 303: Software Engineering

Time: 3 Hours]

[Total Marks: 70

સૂચના : / Instructions

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **MCA - IIIrd Semester**

Name of the Subject :

☛ **Paper No. 303: Software Engineering**

Subject Code No.:

5

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2

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Seat No.:

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Student's Signature

Q-1 A. Attempt the following (Any 3)

[12]

1. List and explain the factors that affect software estimation.
2. Discuss basic principles for Project Scheduling.
3. Explain Risk Table and its fields.
4. Differentiate between Verification and Validation.
5. What is Time line Chart (Gantt)? List the fields of this table.

Q-1 B. List the advantages and limitations of prototyping model.

[02]

Q-2. Answer the following (Any 2):

A. List the design Concepts. Explain any 2 in detail.

[07]

OR

A. What is Functional Independence (FI)? Explain the two measures used to determine FI.

B. Explain the following (Any 2): [07]

- i. Mapping of Analysis Model to Design Model using diagram.
- ii. Transaction Mapping
- iii. Quality Function Deployment

Q-3. Answer the following:

A. Explain Metrics for Software. Also, show using diagram, software metrics baseline process. [07]

OR

A. Which are the four P's necessary for effective project management? Explain the most important P amongst all of them. [07]

B. Explain the following (Any 2): [07]

- i. Effort Distribution
- ii. Project Control and Time Boxing
- iii. Project Manager's objectives while managing a project

Q-4. Attempt the following:

A. Explain briefly, various software testing strategies. [07]

B. Explain the following (Any 2): [07]

- i. Testing Characteristics
- ii. Cyclomatic Complexity
- iii. Metrics for Software Quality

Q-5. Write a short note on the following (Any 2): [14]

- 1. Risks and their categorization
- 2. Software Quality Assurance
- 3. Data Flow Diagrams
