

B.Sc. - III (Information Technology) (CBCS Pattern) Semester-VI  
**005 / UBITT603.4 - Paper-III - Elective-IV : Software Engineering**

P. Pages : 2

Time : Three Hours



**GUG/W/24/13318**

Max. Marks : 40

- 
- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram and use supporting data wherever necessary.
  3. Avoid vague answers and write specific answer related to question.

**Either :**

1. a) Explain the term “Software Engineering – A layered technology” in detail. 4
- b) What is software? Explain evolving role of software in detail. 4

**OR**

- c) Elaborate personal and team process models. 4
- d) Write a short note on changing nature of software. 4

**Either :**

2. a) Discuss on waterfall model in brief. 4
- b) Explain the following: 4
  - i) Feasibility studies
  - ii) Requirement validation

**OR**

- c) Describe the functional requirement with suitable example. 4
- d) Write a detailed note ‘The unified process’. 4

**Either :**

3. a) Give a detail introduction about software architecture. 4
- b) Write a note on : 4
  - i) Context model
  - ii) Behavioral model

**OR**

- c) What do you know about design process and design quality? Explain. 4
- d) Explain data model in detail. 4

**Either :**

- 4. a) Describe testing strategies in detail. 4
- b) Explain Black-Box and White-Box testing with their diagrams. 4

**OR**

- c) Explain the terms : 4
  - i) Metrics for Analysis model
  - ii) Metrics for Design model
- d) What do you know about art of Debugging? Explain. 4

- 5. Solve all the questions.
  - a) Write a short note on process pattern. 4
  - b) Explain non-functional requirement in detail. 4
  - c) Elaborate object models in brief. 4
  - d) Write a short note on validation testing. 4

\*\*\*\*\*