(i) Printed Pages : 3] Roll No. .....

(ii) Questions : 9] **Sub. Code :** 3 6 0 7

Exam. Code : 0 4 5 9

M. Sc. Information Technology 1st Semester Examination

1127

SOFTWARE ENGINEERING

Paper : MS-61

Time : 3 Hours] **[Max. Marks : 80**

Note :– Attempt *five* questions in all. Question No. **1** is compulsory and attempt *one* question from each Unit.

1. Attempt the following :

   (i) What do you mean by data Flow Diagram ?

   (ii) Explain system analysis.

   (iii) Define user interface

   (iv) Explain feasibility

(v) Describe software risk

(vi) Explain decomposition technique

(vii) List the objective of software testing

(viii) Define white box testing. 8×2=16

Unit–I

2. What do you mean by software process modeling ? Explain the following models in detail with the help of example :

   (i) Waterfall model

   (ii) Spiral model

   (iii) A file modeling 16

3. Describe software requirement specification. Explain the requirements, components and designing used in it. 16

Unit–II

4. Explain the principles and objective of software design. Elaborate the designing methodologies in detail. 16

5. Write short notes on the following :

   (a) Cocomo model

   (b) Critical path method

   (c) GANTT Chart

   (d) PERT Chart 4×4

Unit–III

6. Describe the role metrics and measurement in software engineering. Explain the classification of software matrics with the help of their features. 16

7. Explain the types of measurement. Describe the factors affecting software reliability in detail. 16

Unit–IV

8. Explain the software testing strategies with their characteristics and usage. 16

9. Differentiate between :

   (a) Logic based testing and basic path testing

   (b) Domain and boundary testing

   (c) White box testing and black box testing techniques 16