17513

11819

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: **20**

a) Explain prototyping process model using suitable diagram.

b) What is SRS? State importance of SRS.

c) Draw use case diagram of library system.

d) Compare white box and black box testing.

e) Describe ways of tracking project schedule.

f) Define SQA. List SQA activities.

g) Explain any four software categories.

Marks

2. Attempt any FOUR of the following: **16**

a) Describe basic framework and umbrella activities of generic process framework.

b) List seven tasks of requirement engineering.

c) Explain following design concepts

(i) Abstraction

(ii) Pattern

(iii) Refinement

(iv) Refactoring

d) What is need of debugging? List characteristics of bugs.

e) Differentiate between PERT and CPM.

f) Explain McCall's quality factor.

3. Attempt any FOUR of the following: **16**

a) What are goals of PSP and TSP? Explain their framework activities.

b) Explain software deployment principles.

c) State objectives of analysis modelling.

d) List and explain types of system testing.

e) Explain people and project factor in software management spectrum.

f) Compare CMMI and ISO.

4. Attempt any TWO of the following: **16**

a) Explain waterfall model with neat diagram and its advantages and disadvantages.

b) With neat diagram explain the translation of analysis model into design model.

c) Describe DMAIC and DMDAV approach of six sigma.

Marks

5. Attempt any FOUR of the following: **16**

a) Differentiate between prescriptive and agile process model.

b) List and explain software engineering core principles.

c) Draw data flow diagram for railway reservation system.

d) Explain following terms:

(i) Software testing

(ii) Test case

(iii) Test plan

(iv) Bug

e) What is need of SCM? List functions of SCM repository.

f) Describe levels of CMMI technique.

6. Attempt any TWO of the following: **16**

a) Explain design modelling practices in software engineering.

b) Explain integration testing with suitable example.

c) What is software risk? Describe working of RMMM plan.

———