Total No. of printed pages = 3

19/6th Sem/UCSE 602

2022

SOFTWARE ENGINEERING

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer any *five* questions.

1. (a) Why use a life cycle model for software development ? 4

   (b) Describe : 4×4=16

   (i) Waterfall model

   (ii) Prototyping model

   (iii) Evolutionary model

   (iv) Spiral model.

2. (a) What is requirements engineering ? Why is it important ? 3+3=6

   (b) Describe various requirement engineering tasks. 7×2=14

[Turn over

3. (a) What are the essential activities of project planning ? Show precedence ordering among planning activities. 5+5=10

(b) What is Function Point Metric ? Describe. 10

4. (a) Define the terms : 1×4=4

(i) Data/Class design

(ii) Architectural design

(iii) Interface design

(iv) Component Level design.

(b) Briefly explain the following software design concepts : 2×8=16

(i) Abstraction

(ii) Architecture

(iii) Patterns

(iv) Modularity

(v) Information Hiding

(vi) Functional Independence

(vii) Refinement

(viii) Refactoring.

5. (a) Describe the following Black-Box Testing approaches : 5+5=10

Equivalence class partitioning and Boundary value analysis.

(b) What is Coverage-based testing ? Describe. 10

6. Write short notes on : 5×4=20

(i) COCOMO

(ii) Gantt Charts and PERT Charts

(iii) Software Risks

(iv) Software Reliability.