SOFTWARE ENGINEERING

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer question No. 1 and any *five* from the rest.

1. Define :   10×2=20

   (a) Software crisis

   (b) Verification and validation

   (c) Cohesion and coupling

   (d) SRS document

   (e) PERT chart

   (f) Cyclomatic complexity

(g) White box testing

(h) Context diagram

(i) Reliability

(j) TQM

2. (a) What are the basic characteristics of a good software document ?   3

   (b) Differentiate between the waterfall model and the spiral model highlighting the differences.   7

3. (a) Mention the characteristics of a good software design.   3

   (b) Explain the differences between function oriented and object oriented design.   7

4. Explain the various concepts in COCOMO.

                                                            10

5. (a) How is SQA implemented in an organisation?

                                                            5

   (b) Mention the different reliability metrics.

                                                            5

6. (a) Why testing is necessary ? Explain equivalence partitioning technique in testing.

1+4=5

(b) Describe the role of stub and driver in unit testing.

3

(c) What is Integration testing ?

2

7. (a) List the different phases to be considered in project planning.

3

(b) Explain in brief the different steps to be followed when risk analysis is to be performed. Is it a proactive or reactive exercise ? Elaborate.

5+2=7