2018

(December)

COMPUTER APPLICATION

Paper : 3·3

(Software Engineering)

Full Marks : 60

Time : Three hours

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

1. (a) What is software engineering ? Name two types of software development projects. 2+1=3

   (b) How does abstraction differ from decomposition ? Briefly explain with example. 4

   OR

   (c) How does control flow design differ from data flow based design ? Explain with suitable example. 4

(d) Mention *three* drawbacks of using GOTO statement in programs.

3

2. (a) Explain classical waterfall model.

8

OR

(b) Explain V-model.

8

(c) How does prototype model differ from spiral model?

2

3. (a) Briefly explain how project planning is done.

3

(b) What is LOC? How is it used in estimating a project?

1+2=3

(c) Write two major responsibilities of a software project manager.

2

(d) Briefly explain the main differences between the original COCOMO estimation model and COCOMO 2 estimation model.

4

3 SEM BCA (CBCS) 3/D   2

OR

(e) Why is it difficult to accurately estimate effort required in completing a project? Briefly explain different effort estimation methods that are available.

4

4. (a) What is a SRS document?

2

(b) Who carries out requirement analysis and specification?

2

(c) What are the main activities carried out during requirements analysis?

2

(d) What are the characterisitics of a good SRS document?

2

(e) Name three categories of customer requirements.

2

5. (a) Draw the DFD of a fast food corner.

10

OR

(b) Draw the DFD of a pharmacy retailer shop.

10

6. (a) What is UML? 2

   (b) Briefly explain **any two** of the following views : 2×2=4

     (i) User's view

     (ii) Structural view

     (iii) Implementation view

     (iv) Environmental view

   (c) Define **any one** of the following : 2

     (i) Black-box test

     (ii) White box test

     (iii) Integration test