Exam. Code : 107206
Subject Code : 1765

Bachelor of Computer Application (BCA) 6th Semester

SOFTWARE ENGINEERING

Paper—II

Time Allowed—Three Hours] [Maximum Marks—75

Note :— Attempt **FIVE** questions. All questions carry equal marks.

1. (a) What are the desirable characteristics of the software process ? 5

   (b) Discuss the strengths and weaknesses of Iterative software development process model. 10

2. (a) What is Function-Point Quality Metrics ? What are its different components ? How it is computed ? Explain. 10

   (b) Consider a project with the following functional units :

   - Number of user inputs = 50
   - Number of user outputs = 40
   - Number of user enquiries = 35
   - Number of user files = 06
   - Number of external interfaces = 04

Measurement Parameter	Weighting Factor		
	Simple	Average	Complex
Number of user inputs	3	4	6
Number of user outputs	4	5	7
Number of user inquiries	3	4	6
Number of files	7	10	15
Number of external interfaces	5	7	10

Assuming all complexity adjustment factors and weighing factors as average. Calculate delivered function points for the project. 5

3. (a) What is the basic objective of problem analysis ? How it is performed ? Discuss. 8

(b) Discuss the basic components of SRS. 7

4. What are the major issues addressed by project planning ? Explain effort estimation using COCOMO model in detail. 15

5. (a) What should be the design principles ? Explain. 7

(b) Coupling and Cohesion are two modularization criteria. Discuss. 8

6. What should be the objective of Design Methodology ? Discuss the major activities involved in Structured Design Methodology for developing system designs. 15

7. Discuss common coding errors using suitable examples. Explain how structured programming helps in improving code quality ? 15

8. What are testing fundamentals ? Discuss the concept of Functional Testing and Structural Testing in detail. 15

Exam. Code : 107206
Subject Code : 1764

Bachelor of Computer Application (BCA) 6th Semester

COMPUTER GRAPHICS

Paper—I

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt any **five** questions. All questions carry equal marks.

1. Explain the applications of Computer Graphics in the entertainment Industry. 15
2. List different display devices. Explain the working of CRT monitors. 5,10
3. List various line drawing algorithms. Explain Bresenham's line drawing algorithm. 15
4. Write the algorithm to draw an ellipse. Convert this algorithm to a C program. 8,7
5. What is the significance of transformation ? Explain basic transformation operations. 5,10
6. What is Projection ? What are the different types of projections ? Discuss their applications. 2,8,5
7. Explain 3D transformation with details of the matrix representations at various stages. 15
8. List and explain graphics related functions available in C language. 15