

Exam. Code : 107206

Subject Code : 1735

Bachelor of Computer Application (BCA) 6th Semester
COMPUTER GRAPHICS

Paper-I

Time Allowed—2 Hours] [Maximum Marks—75

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. What is use of Computer vision ? What is difference between random scan and raster scan ?
2. Explain different types of technologies used in display devices.
3. Write and explain Bresenham's Circle generating algorithm.
4. (a) Explain any three types of transformations.
(b) Explain DDA line drawing algorithm.
5. What is Clipping ? Explain Cohen Sutherland line clipping algorithm, give an example.
6. What is difference between window port and view port ? Demonstrate window-to-viewport transformations.
7. What is projection ? What is its use ? Explain different types of parallel projections.
8. What is 3D coordinate system ? Explain 3D transformation.

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**Bachelor of Computer Application (BCA) 6th Semester
SOFTWARE ENGINEERING**

Paper—II

Time Allowed—2 Hours] [Maximum Marks—75

Note :—There are **EIGHT** questions of equal marks.
Candidates are required to attempt any
FOUR questions.

1. (a) Software does not wear out as compared to hardware. Explain.
(b) What kind of projects are handled by Iterative Process ? How Spiral model helps in risk management during product development ?
2. Differentiate between Metric and Measurement. Explain the method of computing Function-Point Quality Metric in detail using following example :

Consider a project with the following functional units :

- Number of user inputs = 20
- Number of user outputs = 25
- Number of user enquiries = 15
- Number of user files = 5
- Number of external interfaces = 2

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.

3. What are the various activities involved during planning a software project ? Explain effort estimation with respect to various phases using COCOMO Model in detail.
4. (a) Illustrate the concept of Module Coupling and Cohesion while designing a system.
(b) Explain the concept of Top-Down and Bottom-Up approaches in system design.
5. (a) Explain the use of different coding styles with suitable examples.
(b) Illustrate the significance of Structured Programming in coding.

6. (a) Explain the concept of Test Case and Test Criteria using suitable example.
(b) Explain the concept of White-Box Testing in detail.
7. Why there is a need of System Maintenance ? Discuss its different types using suitable illustrations.
8. How System Maintenance is related with Reverse Engineering ? Explain.