2 0 1 5

(2nd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No. : BCA–206 (OC)

(Assembly Language)

(Practical)

Full Marks : 75

Time : 3 hours

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

Answer **two** questions, selecting **one** from
each Section

SECTION—A

1. Write an Assembly Language Program to find
   the smallest and the largest of the array
   elements.   30

2. Write an Assembly Language Program to add
   5-byte number in two arrays NUM1 and
   NUM2, and store the result in another array
   named SUM, with the carry flag stored at the
   6th byte of SUM.   30

(*Turn Over*)

SECTION—B

3. Write an Assembly Language Program to sort the array elements in ascending and descending order.   20

4. Write an Assembly Language Program to calculate the factorial of a number and display it on the screen.   20

SECTION—C

*   Viva voce   15

**   Practical Record Book   10

* * *

2 0 1 4

(6th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course No. : 602 (i)

(Computer Graphics)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

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

1. *(a)* What is computer graphics? Explain any
   four applications of computer graphics.

   2+8=10

   Or

   (b) What is CAD? Explain computer aided
   design for the following :   2+8=10

       (i) Animation

       (ii) Architecture

       (iii) Aeronautics

       (iv) Automobile industry

                 (Turn Over)

2. (a) How does CRT monitor display color pictures? Explain the two basic techniques for producing color display with CRT. 2+4=6

(b) What is animation? Mention any three uses of animation. 1+3=4

Or

(c) Explain the working mechanism of CRT monitor with a neat diagram. 6

(d) Explain midpoint subdivision algorithm. 4

3. (a) Find the inverse of the matrix

$$\begin{bmatrix} 3 & 5 & 7 \\ 1 & 3 & 8 \\ 2 & 4 & 9 \end{bmatrix}$$

5

(b) Explain the following : 2½+2½=5

(i) Polar coordinates

(ii) Parametric representation of a line segment

Or

(c) What do you mean by transformation? Explain translation, rotation and scaling in 2D transformation of an object with a neat diagram. 1+6=7

(d) What is OpenGL? Write the commands to set a color in OpenGL. 1+2=3

4. (a) Write down Bresenham's circle drawing algorithm. 6

(b) What is B-spline curve? Write down the advantages of B-spline curve. 2+2=4

Or

(c) Explain Cohen-Sutherland line clipping algorithm with a neat diagram. 5+1=6

(b) Write short notes on : 2+2=4
   (i) Generation of bar chart
   (ii) Character generation

5. (a) What is multimedia? Explain the applications of multimedia in—
   (i) education;
   (ii) video conferencing;
   (iii) training;
   (iv) entertainment;
   (v) electronic encyclopedia. 1+5=6

(b) What do you mean by image compression? Explain the three image compression standards. 1+3=4