Roll No. ☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 09

BMCI (2014 & Onwards)/Mobile Computing & Internet (Sem.–3)

COMPUTER GRAPHICS
Subject Code : BSBC-602
M.Code : 72584

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Answer briefly :**

   a) Define Computer graphics.

   b) What are digitizers?

   c) Define RGB color model.

   d) What are area filling techniques?

   e) What are Cartesian co-ordinates?

   f) Define Geometric transformations.

   g) What is the significance of scaling transformations?

   h) What is shearing? What is its need?

   i) What are the characteristics of 3D graphics?

   j) What are homogeneous co-ordinates?

SECTION-B

2.   Explain how raster scan systems are different from random scan sytem?

3.   Discuss various flood filling techniques.

4.   Define Translation and reflection. How these transformations are performed in 3D graphics?

5.   Write Sutherland Hodgeman algorithm for clipping.

6.   What are the various graphics display devices? Explain.

SECTION-C

7.   What are input devices? Explain **any five** input devices with their relevant merits and demerits.

8.   What is the need of scan conversion? Write end explain Bresenham's algorithm for scan converting a line.

9.   What is projection? Discuss its significance. Explain how parallel projection is different from perspective projection.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.