Roll No	
Total No. of Questions :	09]

MCA (Sem. – 5th) COMPUTER GRAPHICS SUBJECT CODE: MCA - 501

Paper ID : [B0122]

[Note: Please fill subject code and paper ID on OMR]

Time: 03 Hours Maximum Marks: 60

Instruction to Candidates:

- 1) Attempt any one question from Sections A, B, C & D.
- 2) Section E is Compulsory.
- 3) Use of Non-programmable **Scientific Calculator** is allowed.

Section – A

 $(1 \times 10 = 10)$

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- **Q1**) What are 3D viewing devices? Explain in detail?
- **Q2**) Explain the following:
 - a) Flatbed plotters and Drum Plotters
 - b) CRT monitors

Section – B

 $(1\times 10=10)$

by homogeneous coancillate system in 2D graphics?

- Q4) Define the following:
 - a) Polygon Clipping
 - b) Area filling techniques

 $(1 \times 10 = 10)$

- **Q5**) What is geometric transformation? Explain the different terminologies used in this process?
- **Q6**) What is 2D viewing? Explain the implementation of other geometric shapes?

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Section – D

 $(1 \times 10 = 10)$

- **Q7**) Explain in detail the process of sub division in computer graphics?
- **Q8**) Explain the constant intensity methods and diffuse reflection?

Section - E

 $Q9) (10 \times 2 = 20)$

- a) What is direct view storage tube?
- b) Explain the term: graphic tablets?
- c) What is phong shading?
- d) Explain the process of cartesian in 2D transformation?
- e) What is light intensity?
- f) What is difference between viewing in 2D and 3D transformation?
- g) Explain voice system process in graphics?
- h) What are the functional characteristics of graphics system?
- i) What is scanner?
- j) Discuss the overview concept of character generation.

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