

B.TECH SEM – VI (2007 COURSE) (MECHANICAL ENGG.) :

SUMMER - 2018

SUBJECT: COMPUTER AIDED DESIGN

Day : **Monday**
Date : **11/06/2018**

S-2018-2733

Time: **02.30 PM TO 05.30 PM**

Max. Marks: 80

N.B.:

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from each section.
- 2) Answers to both the section should be written in **SEPARATE** answer books.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Figures to the right indicate **FULL** marks.
- 5) Assume suitable data if necessary.

SECTION – I

- Q.1** a) Write short note on direct view storage tube. [05]
b) Write a program for drawing circle in computer graphics. [05]
c) Explain with neat sketch composite transformation. [04]
- Q.2** Explain: [13]
a) Color CRT monitors
b) Discuss in brief any four applications of “Interactive Computer Graphics”.
- Q.3** Derive the equation for decision parameter for generation of circle and write a program for same. [13]
- Q.4** Rotate the ABC with A (10, 10), B (30, 10) and C (20, 40) about pivot point F (20, -10) through 90° in clock wise direction. [13]

SECTION – II

- Q.5** a) Explain axonometric projections. [05]
b) Explain in brief window to viewport coordinate transformations. [05]
c) Explain B-rep method of solid modeling. [04]
- Q.6** Explain with neat sketch three dimensional rotation about x, y and z axis. Write the equations in vector and matrix notation. [13]
- Q.7** Clip the triangle ABC with co-ordinates (15, 7) (30, 7) and (30, 27) against a window with parameters (10, 25, 5, 15). Use Cohen Sutherland algorithm. [13]
- Q.8** a) Explain the different types of wire frame models. [06]
b) Derive the equations of a parabola in parametric form. [07]

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