



A-3793

Third Year B. C. A. (Sem. VI) Examination

February / March – 2015

601 : Computer Graphics

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दशांशव \leftarrow निशानोवाणी विगतो उत्तरवही पर अवश्य लखवी. Fillup strictly the details of \leftarrow signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
\leftarrow Third Year B. C. A. (Sem. VI)	<input type="text"/>
Name of the Subject :	<input type="text"/>
\leftarrow 601 : Computer Graphics	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="9"/> <input type="text" value="3"/>	Section No. (1, 2,.....) : <input type="text" value="Nil"/>
Student's Signature	

(2) All questions are compulsory.

1 Answer the following in short : (any five) 10

- (1) What is resolution ?
- (2) Explain advantages and disadvantages of DVST.
- (3) Describe various Line styles.
- (4) Explain problem of aliasing. How can it be solved ?
- (5) State advantages of winding number method over even-odd method.
- (6) Differentiate vector and pixel graphics.

2 Answer following questions in detail : 15

- (a) Write and explain VECGEN vector generation algorithm. 7
- (b) Explain various line caps and thick line joints. 5

OR

- (b) Which relationship exists between slopes of perpendicular lines ? Explain it.
- (c) What is slope of line ? Calculate slope of line having 3
two points P1 (6, 3) and P2 (-2, 3) on the line.

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[Contd...

- 3** Write notes on : (any three) **15**
- (a) Character Generation Methods
 - (b) Color CRT
 - (c) Graphics Standards
 - (d) Boundary Fill Algorithm.
- 4** Answer following question in detail : **15**
- (a) Explain even-odd method to perform inside test on polygon. **8**
 - (b) Explain scaling transformation. **7**
- OR**
- (b) Explain shearing transformation.
- 5** Do as directed : **15**
- (a) Explain rotation about origin transformation. **7**
- OR**
- (a) Explain different applications of computer graphics.
 - (b) Attempt following with the example : **8**
 - (i) Move a square down 2 units and then right by 3 units.
 - (ii) Scale the object twice as large then rotate it in anticlockwise by an angle $\Pi/2$.
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