

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MAKEUP EXAMINATION APRIL 2018

B.Tech VI Semester

COURSE CODE: 11B1WCI611

MAX. MARKS: 25

COURSE NAME: Computer Graphics

COURSE CREDITS: 04

MAX. TIME: 1.5 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. Write the Liang Barsky algorithm for line clipping? Clip the line (2, 10), (10, 2) by window with diagonal (4, 4), (10, 10) using the same.

[5+4]

2. Derive the decision parameter for rasterizing an ellipse using mid-point theorem.

[6]

3. Perform the reflection a square $\{(1, 0), (1, 1), (2, 1), (2, 0)\}$ about the line $y = -x$. Derive two different methods to perform the same task and explain the sequence of transformation used in each method.

[5]

4. Define the following terms:

a) Random Scan Display

b) Viewing Pipeline

c) Area Sampling

d) Fixed-point scaling

e) Zero-Winding Rule

[1*5]