

Unit 8 - Week 6: Clipping & Hidden Surface Removal

Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Week 1 : Introduction

Week 2: Object Representation

Week 3: Modeling Transformation

Week 4 : Lighting

Week 5: Viewing Pipeline

Week 6: Clipping & Hidden Surface Removal

Lec 21: Clipping introduction and 2D point and line clipping

Lec 22: 2D fill-area clipping and 3D clipping

Lec23: Hidden surface removal – I

Lec 24: Hidden surface removal – II

Quiz : Assignment 6

Feedback form

Solution: Assignment 6

Week 7: Scan Conversion

Week 8: Graphics Hardware and Software

Live Session

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Assignment 6

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-28, 23:59 IST.

1) Cohen-Sutherland algorithm is used for 1 point

- a. point clipping
 b. line clipping
 c. fill-area clipping
 d. all of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. line clipping

2) Match the following. 1 point

- | | |
|-----------------------------------|----------------------------------|
| I. Line | A. Sutherland-Hodgeman algorithm |
| II. Convex fill-area | B. Cohen-Sutherland algorithm |
| III. Convex and concave fill-area | C. Weiler-Atherton Algorithm |

- a. I-A, II-B, III-C
 b. I-B, II-A, III-C
 c. I-C, II-B, III-A
 d. I-A, II-C, III-B

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. I-B, II-A, III-C

3) HSR is a computationally intensive process - one way to reduce computation is use of coherence properties. There are several types of coherences. Which among the following is not a coherence-type? 1 point

- a. Object coherence
 b. Face coherence
 c. Edge-line coherence
 d. Scan-line coherence
 e. Depth coherence

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. Edge-line coherence

4) 'Back Face Elimination' is required for _____ 1 point

- a. hidden surface removal
 b. fill-area clipping
 c. both for hidden surface removal and fill-area calculation
 d. none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. hidden surface removal

5) Depth Sorting (Painter's) algorithm works at 1 point

- a. image space
 b. object space
 c. both image and object spaces
 d. neither image space not object space

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. both image and object spaces

6) Process of discarding objects is 1 point

- a. clamping
 b. clipping
 c. popping
 d. pushing

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. clipping

7) 2D clipping algorithms cannot be extended to be used in 3D clipping. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. False

8) Clipping algorithms are used to remove hidden surfaces. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. False

9) HSR method broadly of TWO types: object space method and _____ space method 1 point

- a. unhidden
 b. plane
 c. hidden
 d. image

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. image

10) Warnock's Algorithm is a _____ method. 1 point

- a. clipping
 b. area subdivision

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. area subdivision