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**Question Paper Code : 50368**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Seventh Semester

Computer Science and Engineering

CS 6006 – GAME PROGRAMMING

(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. What is ray tracing? Mention any two applications of ray tracing.
2. List textures based algorithms for more realistic shading.
3. Briefly describe geometric level of design.
4. How collision between moving objects is identified in game design?
5. What are the issues in designing user-interface in game development?
6. How can the memory usage be reduced in storing the samples?
7. Why IOS is considered as secured?
8. How do you know if DirectX is using hardware acceleration or software rendering?
9. What is the role of the component direct play?
10. Write any four features of tile-based games.

PART – B

(5×16=80 Marks)

11. a) With suitable examples, discuss the functionalities of various shader models. (16)  
(OR)  
b) Propose the fundamental algorithms upon which various state-of-the-art techniques can be built to control human character animation. (16)



12. a) i) Explain game engine architecture with a neat sketch. (8)  
ii) Discuss the essential features of game profiling. (8)

(OR)

- b) With suitable examples explain the following :  
i) Game Loop. (8)  
ii) Human Interface Devices. (8)

13. a) Explain how caching game data is deployed. Give example and explain the processing of controlling and loading data. (16)

(OR)

- b) Illustrate the steps involved in game event management with examples. (16)

14. a) Assess the salient features and limitations of the various gaming platforms. (16)

(OR)

- b) How to make games with Python ? Explain the Python support for games and mention some famous games written in Python. (16)

15. a) Design a puzzle game and construct the steps in developing the game with examples. (16)

(OR)

- b) Determine and explain the drawbacks of single player games with proper illustrations. (16)
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