B.E. (Information Technology) Eighth Semester (C.B.S.)
Gaming Architecture & Programming

P. Pages : 2

Time : Three Hours

0439

Max. Marks : 80

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Notes : 1. All questions carry marks as indicated.
2. Solve Questions 1 OR Questions no. 2.
3. Solve Questions 3 OR Questions no. 4.
4. Solve Questions 5 OR Questions no. 6.
5. Solve Questions 7 OR Questions no. 8.
6. Solve Questions 9 OR Questions no. 10.
7. Solve Questions 11 OR Questions no. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What do you mean by game? What are the game design principles?   **4**

    b) What are the phases in Gameplay development? Explain the process, people involved in each phase?   **10**

OR

2. a) Explain steps involved in creating the game specification?   **7**

    b) What are tokens? Explain problem domain in game development?   **7**

3. a) Explain why game development has to be tier-based. Describe application of tier-based approach to architecture design.   **6**

    b) State design patterns that are commonly used in game design and explain any five of them.   **7**

OR

4.   Explain the following terms:-
    a) Blue-Sky research.   **4**

    b) "Hard" and "Soft" architecture.   **4**

    c) Research goals with example   **5**

5. a) Explain the seven golden gambits of effective game design.   **7**

    b) What is game programming? Explain various activities involved in it?   **6**

OR

6. a) Write in brief, how Direct-x can be used to develop games.   **6**

    b) Explain various platforms on which game can be deployed on- What are the advantages and disadvantages of each of these platform.   **7**

7. a) What is source control? Explain in brief the different functionalities provided by source control system.   **7**

| | b) | Describe the game build process. | 6 |

OR

| 8. | a) | What are smart pointers? Write a short notes on the different ways in which they can be implemented. | 8 |
| | b) | Distinguish between stack memory and heap memory? | 5 |

| 9. | a) | What are the three stages of running games? Explain in detail? | 7 |
| | b) | What are sprites and why are they used? Write a basic sprite class and explain the various properties in it? | 7 |

OR

10.	a)	What are the two methods of drawing text on screen and what are its advantages and disadvantages?	6
	b)	Explain the use of Chroma keys.	4
	c)	What are the various graphics file format?	4

| 11. | a) | Define 3-D Middleware? Describe the popular 3-D engines currently in use? | 7 |
| | b) | Write a short notes on 3-D graphics pipeline. | 6 |

OR

| 12. | a) | What are the popular audio file formats used in game? | 6 |
| | b) | What are various method of compression in use? | 7 |

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