

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET A

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2024**

Semester : Semester V - 2021

Course Code : CSE3073

Course Name : Game Design and Development

Program : B.Tech.

Date : 08-JAN-2024

Time : 9:30AM - 12:30 PM

Max Marks : 100

Weightage : 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

5 X 2M = 10M

1. What are the components of elemental tetrad? (CO1) [Knowledge]
2. List any 4 formal elements. (CO1) [Knowledge]
3. List any two definitions of a game. (CO1) [Knowledge]
4. Why do we need SystemInformation in C# Unity game development. (CO3) [Knowledge]
5. List any two differences between lofi(low fidelity) prototype and hifi(high fidelity) prototype. (CO4) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. Explain in detail the 3 Cs framework for game design. (CO1) [Comprehension]
7. Summarize the C# naming conventions used during unity game development. (CO3) [Comprehension]

8. Explain the various looping constructs available in C#. (CO3) [Comprehension]
9. Explain the different types of prototypes. (CO2) [Comprehension]
10. Explain in detail the use of sound prototyping in game development. (CO4) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

2 X 20M = 40M

11. Consider the hit table consisting of range of random numbers generated and the corresponding weightage in combat.

Hit Table	
Range	Hit Weight
0 - 19	10%
20 - 34	25%
35 - 49	40%
50 - 59	50%
60-79	75%
80 - 94	80%
95 - 99	100%

Use this hit table to design a combat model suitable for a two person combat game.

If Player 1 is the human player, and you want the first level to be a tutorial level for the human player, show how should the attack and defense values be designed assuming that human player starts with health of 100.(HP=100). Give detailed justification for your answer.

(CO2) [Application]

12. In the game that you developed in your course project, show how the followings part was designed along with relevant code fragments.
- Collider. List the different types of colliders available. Which one did you use in your project and why.
 - Movement. Show how the movement was performed in the code.
 - Show the code relelevant to perform Controls(3 Cs framework) in your game. In which script did you include this, and why.
 - .iv. What was the victory condition for your game. If you chose not to have a victory condition, why was it so. If you used a victory condition, how was it performed in code.
 - v. Among the functions inherited from MonoBehaviour class such as Awake, Start, Update, and FixedUpdate, show which ones you used in your project and why.

(CO4) [Application]