



BCA (Game Techonology) II ( ) - IV (Main/Back) End Semester Examination, April 2024

**BGGCCA4103: Pixi.JS**

**Time:** 3 Hours

**Total Marks:** 60

**Min. Passing Marks:** 21/24/27

**Question Paper ID:** 000710

**Instructions:** Attempt all five questions. There is an internal choice either (a or b) in Q1 to Q5. Marks of each question or its parts are indicated against each question/part. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

**Bloom Level(BL):** 1-Remembering, 2-Understanding, 3-Appling, 4-Analysing, 5-Evaluating, 6-Creating

Use of following supporting material is permitted during examination for this subject: Nil

- Q1. (a)** (i) Explain the features of Pixi Js with suitable examples. **(6 Marks)** **Marks BL CO**  
**12 1 1**  
(ii) Explain the basics of HTML 5 game development. **(6 Marks)**  
**(OR)**
- (b)** Suggest the following with an example:  $4 \times 3 = 12$   
(i) Sprite  
(ii) Sprite Sheet  
(iii) Game Loop
- Q2. (a)** Explain the following with a suitable example: ( $3 \times 4 = 12$ ) **Marks BL CO**  
**12 1 2**  
(i) Sprite Constructor  
(ii) Sprite Scale  
(iii) Tint  
(iv) Visibility  
**(OR)**
- (b)** If you are a Pixi js developer, show how you will add graphics in your code i.e. line, and rectangle. **(12 Marks)**
- Q3. (a)** What do you understand by collision detection and collision response in game technology? Suggest a Pixi js example. **Marks BL CO**  
**12 1 3**  
**(OR)**
- (b)** (i) Elaborate on the Arace physics engine in game technology in the context of Pixi js. **(6 Marks)**  
(ii) what is the use of matter js in Pixi Js? Explain with an example. **(6 Marks)**
- Q4. (a)** (i) What do you understand by performance optimization in game technology? Explain with an example. **(6 Marks)** **Marks BL CO**  
**12 1 4**  
(ii) Explain the method and strategies for game optimization. Suggest an example in the Pixi js context **(6 Marks)**  
**(OR)**
- (b)** Explain the tools used in game optimization with examples.
- Q5. (a)** If you are a game developer in Pixi js, suggest how to implement the game logic and its mechanics to create a Pixi js game. Explain with a suitable example. **(12 Marks)** **Marks BL CO**  
**12 1 5**  
**(OR)**
- (b)** How to classify the game mechanics? Suggest the steps to deploy the game on different platforms. **(12 Marks)**

\*\*\*End of Question Paper\*\*\*