## 2D 3D Graphics Design

**Semester: V** 

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## Part A

- 1. Write a Python program to initialize Pygame and create a window.
- 2. Write a Python program to set and change the window size and title in Pygame.
- 3. Write a Python program to change the screen background color in Pygame.
- 4. Write a Python program to handle keyboard and mouse events in Pygame.
- 5. Write a Python program to draw basic shapes (lines, rectangles, circles) in Pygame.
- 6. Write a Python program to load and display an image using Pygame.
- 7. Write a Python program to load and customize the cursor in Pygame.
- 8. Write a Python program to move an image using numeric keypads and the mouse in Pygame.

## Part B

- 1. Write a Python program to use text as buttons with event handling and display image in the same window after clicking the button in Pygame.
- 2. Write a Python program to transform and rotate images in Pygame.
- 3. Write a Python program to load an image on a surface and perform transformations in Pygame.
- 4. Write a Python program to integrate PyOpenGL for 3D rendering and transformations in Pygame.
- 5. Write a Python program to develop pong game in Pygame.
- 6. Write a Python program to develop flappy game in Pygame.
- 7. Write a Python program to develop tic tac toe game in Pygame.
- 8. Write a Python program to develop a snake game in Pygame.