

**COMSATS UNIVERSITY ISLAMABAD, ABBOTTABAD CAMPUS**

**Department of Computer Science**

**Terminal Examination Spring 2024**

**Subject:** Game Development

**Class:** BSE 7A/B

**Max Marks:** 30

**Instructor:** M. Ibtisam Gul

**Date:** 24-July-2024

**Time Allowed:** 30 Minutes

---

**MULTIPLE CHOICE QUESTIONS**

**Instructions:** Choose the correct option. Each question carries 1 mark.

---

1. **Which of the following is not a common role in a game development team?**
  - A) Game Designer
  - B) 3D Modeler
  - C) Sound Engineer
  - D) Network Administrator**
2. **What is the primary difference between Unity 2D and 3D?**
  - A) Graphics quality
  - B) Camera perspective**
  - C) Audio quality
  - D) Network capabilities
3. **What is the main advantage of using the Universal Render Pipeline (URP)?**
  - A) Enhanced graphics quality
  - B) Compatibility with a wide range of devices**
  - C) Faster rendering times
  - D) Improved sound quality
4. **What is the purpose of a material in Unity?**
  - A) To control the physics of an object
  - B) To manage the animations of an object
  - C) To define how a surface should be rendered, including textures, colors, and shader properties**
  - D) To handle user input
5. **What is the purpose of baking lightmaps in Unity?**
  - A) To create dynamic lighting effects
  - B) To enhance sound quality
  - C) To manage network traffic
  - D) To improve performance by pre-calculating lighting**

6. **Which of the following is an example of a game design element?**  
**A) Game Mechanics**  
B) Programming Languages  
C) Development Tools  
D) Network Protocols
7. **Which Unity method is used to update physics calculations?**  
A) Update  
**B) FixedUpdate**  
C) LateUpdate  
D) OnGUI
8. **Why is frame rate independence important in game development?**  
**A) To ensure consistent gameplay across different hardware**  
B) To improve graphical quality  
C) To enhance sound effects  
D) To reduce development time
9. **What is Cinemachine in Unity?**  
A) A tool for creating animations  
**B) A camera system for advanced control**  
C) A physics engine  
D) A networking library
10. **What is the main difference between a Collider and a Trigger?**  
A) Colliders can detect collisions, Triggers cannot  
B) Triggers can detect collisions, Colliders cannot  
**C) Colliders affect the physics of objects, Triggers do not**  
D) There is no difference
11. **Which component must an object have to detect collisions in Unity?**  
**A) Rigidbody**  
B) Light  
C) AudioSource  
D) Animator
12. **How can you check if a GameObject has a specific Tag in a script?**  
A) Using the CheckTag method  
**B) Using the CompareTag method**  
C) Using the ValidateTag method  
D) Using the TagMatch method
13. **How can you interact with UI elements using a script in Unity?**  
A) Using the UIManager class  
B) Accessing the component through the Canvas  
**C) Using Event Listeners**  
D) Using Physics components

14. Which method would you use to apply force to a Rigidbody in Unity?  
**A) AddForce**  
B) ApplyForce  
C) SetForce  
D) EnableForce
15. How do you access the parent of a Transform in Unity?  
A) transform.root  
**B) transform.parent**  
C) transform.child  
D) transform.sibling
16. How can you create a Prefab in Unity?  
A) By right-clicking in the Scene view and selecting Create Prefab  
**B) By dragging a GameObject from the Hierarchy into the Project window**  
C) By using the Create menu in the Inspector  
D) By selecting an option in the Rigidbody component
17. What happens to the children of a GameObject when it is destroyed?  
**A) They are also destroyed**  
B) They remain in the scene  
C) They are moved to the root of the scene  
D) They are duplicated
18. What parameters are required to instantiate a GameObject at a specific position and rotation?  
**A) Prefab, position, rotation**  
B) Prefab, scale, position  
C) Prefab, rotation, scale  
D) Prefab, position, parent
19. Which keyword is used to pause a Coroutine in Unity?  
**A) yield return**  
B) pause  
C) wait  
D) delay
20. What is the primary purpose of Terrain in Unity?  
A) To create animations  
B) To render complex 3D models  
**C) To generate large outdoor environments**  
D) To handle UI elements
21. How do you apply acceleration to a vehicle in Unity?  
**A) WheelCollider.motorTorque**  
B) WheelCollider.acceleration

- C) WheelCollider.move
- D) WheelCollider.speed

22. Which component is typically included in a First-Person Character Controller?

- A) Camera**
- B) AudioSource
- C) Light
- D) Animator

23. How do you determine what ray hits in Unity?

- A) By checking the RaycastHit object**
- B) By using the RayDetect method
- C) By using the Collision component
- D) By analyzing the Transform component

24. Which component is essential for using the Timeline in Unity?

- A) Animator
- B) Rigidbody
- C) AudioSource
- D) Playable Director**

25. Which component is used to control the playback of Animation Clips in Unity?

- A) Rigidbody
- B) Animator Controller**
- C) AudioSource
- D) Collider

26. How can you create a Ragdoll in Unity?

- A) Using the Ragdoll Wizard**
- B) By scripting it from scratch
- C) By using the Audio Mixer
- D) By importing from the Asset Store

27. How do you apply an impulse force to a Ragdoll in Unity?

- A) Using AddForce with ForceMode.Impulse**
- B) Using ApplyImpulse
- C) By increasing the Ragdoll's mass
- D) By adjusting the Ragdoll's Animator component

28. Which process is used to combine two parents to produce offspring(s) in genetic algorithms?

- A) Mutation
- B) Crossover**
- C) Selection
- D) Evaluation

29. What is Augmented Reality (AR)?

- A) A technology that fully immerses users in a virtual environment

- B) A tool for creating 3D models
- C) A method for generating audio effects
- D) A technology that overlays digital information on the real world**

30. **What is a common challenge when developing VR applications?**

- A) Creating realistic audio effects
- B) Achieving high frame rates to avoid motion sickness**
- C) Designing 2D user interfaces
- D) Implementing basic physics