Midterm Topics are:

1. Introduction to Game Development lect 1
2. Game Design lect 1
3. Basics of C# for Unity
4. Unity Order of Execution
5. Frame Rate Independence
6. Delayed Execution of Functions
7. Properties – Encapsulation
8. Coroutine
9. Gameobjects and Components
10. Physics Material
11. Transform
12. Rotate and Translate
13. Rigidbody
14. Force and Torque
15. Colliders & Triggers
16. Collision Events
17. Destroying Objects
18. Instantiating Objects ---- Dynamically creates objects at runtime
19. Finding Components --- GetComponent
20. Finding Objects
21. Prefabs
22. Tags & Layers
23. Camera
24. Cinemachine

Past paper

1. 1
2. 2
3. 3

Final Topics are:

1. New Input System
2. User Interface
3. UI Events
4. Scriptable objects
5. Particle Effects
6. Music & Sound Effects
7. Terrain and Terrain Tools
8. Probuilder to create complex game objects
9. Timeline Sequence
10. Creating basic animation for objects
11. Using animation clips, animator controller
12. Creating Avatar for Humnoid Character and applying it to animations.
13. Applying Root Motion
14. Ragdoll Physics
15. Getting the hit rigidbody and applying force on it
16. Ray, Raycast & RaycastHit
17. Shooting using Ray, Raycast and RaycastHit
18. Detecting using Ray, Raycast and RaycastHit
19. Detecting distance
20. FP Controller using a new input system
21. Enemy Controller with Melee Attack (Detection, Follow, Attack)
22. Vehicle Controller using Wheel Collider
23. Unity AI Navigation (Navmesh Surface & Navmesh Agent)
24. Genetic Algorithms
25. Using Genetic Algorithm for self-driving vehicle

CLO-1: Characterize the fundamental concepts of game development. (Bloom's Taxonomy Level: Understanding)

(Verbs for questions: Classify, Convert, Demonstrate, Describe, Differentiate, Discuss, Exemplify, Explain, Infer, Interpret, paraphrase, Report. Summarize, Translate)

CLO-2: Create different assets and scenes for a game scenario. (Bloom's Taxonomy Level: Creating)

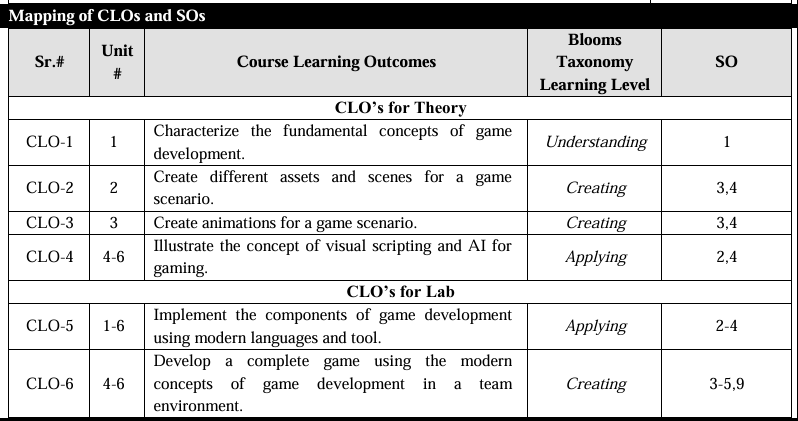
(Verbs for questions: Apply, Calculate, Carry out, Edit, Diagram, Execute, Illustrate, Implement, Investigate, manipulate, Modify, operate, Perform, Produce, Solve, Use, Write).

CLO-3: Create animations for a game scenario. (Bloom's Taxonomy Level: Creating)

(Verbs for questions: Apply, Calculate, Carry out, Edit, Diagram, Execute, Illustrate, Implement, Investigate, manipulate, Modify, operate, Perform, Produce, Solve, Use, Write).

CLO-4: Illustrate the concept of visual scripting and AI for gaming. (Bloom's Taxonomy Level: Applying)

(Verbs for questions: Apply, Calculate, Carry out, Edit, Diagram, Execute, Illustrate, Implement, Investigate, manipulate, Modify, operate, Perform, Produce, Solve, Use, Write).



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