C–1653

Sub. Code
83432

B.Sc. DEGREE EXAMINATION, APRIL 2024

Third Semester

Game Design and Development

GAME ENGINE – I

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is 2D?
2. Define Rig.
3. What are the sources of input settings?
4. What are the uses of Mesh filter?
5. What is Coroutines?
6. Define Path finding.
7. What are properties of Camera?
8. What is memory optimization?
9. Define spawn.
10. Write about clean up code.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write about the 3D game objects.

Or

(b) Describe about the Polygonal meshes.

12. (a) Discuss about the Basic 3D methods.

Or

(b) Write about Game objects behavior.

13. (a) Write about Raycasting.

Or

(b) Write short note on joints.

14. (a) Write short note on GUI.

Or

(b) Discuss about Memory optimization.

15. (a) Give note on sound and music.

Or

(b) Discuss about Server.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about Concepts of 2D vs 3D game in detail.

Or

(b) Give detailed note on Terrain Design.

17. (a) Give detailed note on Exploring different colliders.

Or

(b) Describe about rendering to texture.

18. (a) Explain about Occlusion culling in detail.

Or

(b) Discuss about the Basic UI Layout.

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C–1654	Sub. Code
	83433

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Third Semester

Game Design and Development

DIGITAL MODELING – I

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is called rebuilding curve option?

2. Define Project Tangent.

3. What is Bevel Plus?

4. Write a note on Intersect in digital modeling.

5. Summarize about UV wrapping.

6. Define Topology.

7. Discuss shortly on Rebuild curve.

8. What do you mean by EP curve tool?

9. Write about the real time strategy game genre.

10. What do you mean by Sculpt polygon tool?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Briefly explain about curve tools.

Or

(b) Discuss on the User Interface.

12. (a) Explain about Boolean operations.

Or

(b) Explain about the Duplicate NURBs patch.

13. (a) Write a short note on UV wrapping.

Or

(b) What is planar mapping in Maya?

14. (a) Discuss about the EP Curve Tool.

Or

(b) Explain about the Rebuild curve and Extend curve.

15. (a) Briefly discuss the Game Environment Modeling.

Or

(b) Describe about the set designs for games and video.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about orthographic window.

Or

(b) Explain the quick layout buttons, view panel and toolbar uses.

17. (a) Explain in detail about UV Texturing and Lighting.

Or

(b) Elaborate the features and different steps involved in Weapon design.

18. (a) Explain in detail about the various curve and edit tools used in game modeling designs.

Or

(b) Briefly illustrate the characters layout as per the gaming requirements.

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C–1655	Sub. Code
	83434

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Third Semester

Game Design and Development

WEB GAME DEVELOPMENT

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define HTML 5.

2. Give a short note on metadata Tag.

3. What is the purpose of validation?

4. List out any four uses of SVG.

5. Define Animations.

6. What is API framework?

7. What is Sprite Sheet?

8. Define collision detection.

9. Define JSON parsing.

10. What is meant by DOM?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What is quote attribute values in HTML?

Or

(b) Explain the steps involved in HTML 5 with examples.

12. (a) Explain in detail about Arrays standard and their types.

Or

(b) Explain password validation and password matching.

13. (a) How to parse JSON in web API?

Or

(b) Write in detail about Scrolling effect and its classification.

14. (a) Explain about Square Collision Detection.

Or

(b) How to make a game using JavaScript?

15. (a) Briefly discuss request and response in a gaming platform.

Or

(b) Explain about the applications of Asynchronous webpage.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Discuss about HTML Audio and HTML video.

Or

(b) Briefly explain on Canvas Game development.

17. (a) Write in detail on File Handling Import and Export data.

Or

(b) Explain the mechanisms which make a language object oriented programming in Javascript.

18. (a) Discuss about the canvas game development.

Or

(b) Explain about the system controlled game elements.

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C–1656	Sub. Code
	83442

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Fourth Semester

Game Design and Development

DIGITAL MODELING – II

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Write short notes on importance of colours in textures.

2. Summarize the function of tilling textures.

3. How do you turn normal maps into textures?

4. Write short notes on colour map.

5. Summarize about maya light attributes.

6. Write short notes on base paint materials.

7. Outline the vehicle modeling basics.

8. List out the importance of animated meshes.

9. Why is topology is important in character modelling?

10. Write short notes on face mesh in digital modeling.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Describe about the importance of roughness in textures.

Or

(b) Discuss in detail about the lossy compression.

12. (a) Summarize the creating of ambient maps.

Or

(b) Compare the difference between specular map and bump map.

13. (a) Describe the importance of colour theory in digital modeling.

Or

(b) Outline the functions of layer instancing.

14. (a) Discuss about the vehicle body mesh in digital modeling.

Or

(b) Summarize the animation cycles for engines.

15. (a) Outline the steps to make a working model of feeds.

Or

(b) Write in detail about the methods to bake high poly mesh in a substance.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about reflectivity and surface translucency in textures.

Or

(b) Elaborate on image and lossless compression in digital modeling.

17. (a) Explain in detail about the types and functions of rendering in modeling.

Or

(b) Elaborate on proportion and layout in vehicle modeling.

18. (a) Elaborate on material nodes and texture nodes in texturing.

Or

(b) Explain in detail about building character body mesh in digital modeling.

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C–1657

Sub. Code
83443/82643

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fourth Semester

MOBILE GAME DEVELOPMENT

Common For Game Design And Development/Game Programming

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. List out the three levels of data abstraction.
2. Summarize the functions of static member.
3. How do you create a list array in Java?
4. List out the types of threads used in Java.
5. Define IDE interface.
6. Write short notes on parsing in programming.
7. List out the types gaming classes.
8. Organize the importance of importance of sprite in animation.
9. Define particle effect in Java.
10. Write short notes on interaction in Java.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write in detail about the OOPS concepts with real life examples.

Or

(b) Outline the different types of arrays used in game development.

12. (a) Discuss in detail about the method overriding in Java with example.

Or

(b) Describe the importance of exception handling exception.

13. (a) Write in detail about the different elements of a mobile OS.

Or

(b) Summarize the importance of layout management.

14. (a) Discuss about the basics of graphics libraries.

Or

(b) Organize the importance of screen interface.

15. (a) Outline the three ways of event handling in Java.

Or

(b) Describe how do game engines simulate physics.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain in detail about the polymorphism and dynamic binding.

Or

(b) Discuss in detail about the wrapper class and type casting.

17. (a) Describe about threading and multi-threading in Java.

Or

(b) Briefly explain different build tools used in mobile game development.

18. (a) Elaborate on stages of game development life cycle.

Or

(b) Discuss in detail about the programming game play.

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C–1658	Sub. Code
	83451

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fifth Semester

Game Design and Game Development

GAME ENGINE – II

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What are transform tools?
2. Write about Static mesh.
3. What are the types of Maps?
4. Brief about Audio tracks.
5. How to create A HUD?
6. How to use Gamepad inputs?
7. Brief about Side Scroller game.
8. How to use Slow motion ability?
9. List the types of Flash lights.
10. Do you need to create pop up messages why?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write about the faults caused during Installation process.

Or

(b) Illustrate about Landscape Editing basics.

12. (a) Discuss about Opacity masks.

Or

(b) How to create water with swimming feature?

13. (a) Write about Blueprint variable types.

Or

(b) Discuss about features of styling main menu.

14. (a) Write short note on Teleporting players.

Or

(b) How to activate the animated cool down timer?

15. (a) Give short notes on Lighting our level.

Or

(b) Discuss about creating a moving Platform.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain about the Project creation.

Or

(b) Give detailed note on Matinee soundtracks.

17. (a) Elaborate the working process of UI Widgets.

Or

(b) Describe about types of Boost ability.

18. (a) Explain about Damaging player with fire in detail.

Or

(b) Discuss about regenerating health system.

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C–1659	Sub. Code 83454

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fifth Semester

Game Design and Development

ARTIFICIAL INTELLIGENCE

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List out the importance of AI.
2. How do you describe a problem space?
3. Write short notes on patterned roaming.
4. How do you show grid on canvas?
5. Outline the importance of flocking in game development.
6. Summarize fuzzy logic with examples.
7. How does AI inference work?
8. Which algorithm is specifically used by strips?
9. List out the role of expert systems.
10. What is meta-knowledge in artificial intelligence?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Describe about the major types of AI problems.

Or

(b) Write in detail about issues in the design of search programs.

12. (a) Outline the different types of AI used in game development.

Or

(b) Discuss in detail about importance of good game.

13. (a) Conclude the flocking and steering AI.

Or

(b) Describe the genetic algorithmics and its purpose.

14. (a) Compare the rule based approach and learning based approach in AI.

Or

(b) Outline the Shafer theory in game development process.

15. (a) Write in detail about the role of expert system in artificial intelligence.

Or

(b) Organize the future for AI in games.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain in detail about production system characteristics in artificial Intelligence.

Or

(b) Elaborate on methods to create a strategically AI in games.

17. (a) Compare the game AI and AI and their merits and demerits.

Or

(b) Explain in detail about the fuzzy logic and fuzzy state machines in artificial intelligence.

18. (a) Describe types and importance of production based system in AI.

Or

(b) Discuss in detail about different ways and purpose of knowledge acquisition in AI.

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C–1660	Sub. Code
	83455A

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fifth Semester

Game Design and Game Development

EMERGING TRENDS

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. Define VR.
2. What is Matrices?
3. Write about Eye transforms.
4. Write about viewing transforms.
5. What is Depth perception?
6. How to do filtering?
7. What is Hybrid tracking?
8. Define SURF.
9. Define BCI.
10. Write about sensor cloud.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write short notes on Birds eye view.

Or

(b) Write about Geometric modelling.

12. (a) Explain about Quaternions.

Or

(b) Write about viewport transformation.

13. (a) Brief about three interpretations of light.

Or

(b) Discuss about tracking with camera.

14. (a) Enumerate about feature matching.

Or

(b) Discuss about different types of AR.

15. (a) Explain about Networking in detail.

Or

(b) Discuss about Sensor Grid.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the VR hardware Components in detail.

Or

(b) How do you determine the roll pitch and yaw?

17. (a) Explain about Tilt Draft Correction.

Or

(b) Describe about the classification based on sensor.

18. (a) Explain in detail about Canonical view Transform.

Or

(b) Describe about machine to machine communication.

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C–2385	Sub. Code 83413

B.Sc. DEGREE EXAMINATION, APRIL 2024.

First Semester

Game Design and Development

PROFESSIONAL CONTEXT TECHNOLOGY AND COMMUNICATION METHODS

(2023 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** questions.

1. What is a significant consideration in the "ethics of new media"?

   (a) The development of traditional media.

   (b) The responsible use of emerging media technologies.

   (c) The history of human-computer interaction.

   (d) The evolution of games.

2. Which aspect is covered in the "evolution of games"?

   (a) The ethical considerations of new media.

   (b) The history of human-computer interaction.

   (c) The development of traditional media.

   (d) The changes and advancements in the world of gaming.

3. In game design, what does a "linear plot" typically entail?

(a) A storyline with multiple possible outcomes.

(b) A fixed and predetermined sequence of events in the game.

(c) A plot that is constantly changing.

(d) A plot that involves branching decisions.

4. Which storytelling technique is used in games where the player's choices lead to different outcomes, creating a "branching tree" of possibilities?

(a) Braided plot (b) Network storytelling

(c) Linear plot (d) Dramatic elements

5. What is a distinguishing characteristic of a transmedia world?

(a) It exists only within a single medium.

(b) It lacks a consistent narrative across various platforms.

(c) It spans multiple media platforms, telling a cohesive story.

(d) It focuses solely on the real world.

6. Which of the following is a common element of successful game worlds?

(a) Lack of depth and complexity to make them more accessible.

(b) Inconsistency and unpredictability to surprise players.

(c) Strong engagement, internal logic, and consistency.

(d) Frequent changes to the game world to keep players interested.

7. In the context of gaming, what does "empathizing" with players mean?

(a) Understanding and sharing the feelings and experiences of players.

(b) Ignoring the emotions and preferences of players.

(c) Creating a competitive gaming environment.

(d) Enhancing the complexity of the game world.

8. How does "imagination" contribute to a player's experience in games?

(a) It restricts creativity and engagement in the game.

(b) It discourages players from thinking creatively.

(c) It helps players envision and immerse themselves in the game world.

(d) It makes the game more predictable and straightforward.

9. What does the term "taxonomy of players" refer to in game design?

(a) It describes the rules and objectives of a game.

(b) It categorizes different types of players based on their preferences and behaviors.

(c) It refers to the flow of influence within a game.

(d) It indicates the balance of player types in a game.

10. In the context of player interactions, what does "flow of influence" entail?

(a) The movement of players within a game world.

(b) The balance between different player types.

(c) The transfer of power or control between players during a game.

(d) The design of game rules and objectives.

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Discuss on game genres.

Or

(b) Explore on core dynamics.

12. (a) Demonstrate on networks.

Or

(b) Discuss on progression games.

13. (a) Narrate on nature of game characters.

Or

(b) Differentiate real and virtual architecture.

14. (a) Discuss on dynamics of player taxonomy.

Or

(b) Illustrate on interest curves.

15. (a) Differentiate between the code and other laws of computer game design.

Or

(b) Describe about dynamics.

Part C $(5 \times 8 = 40)$

Answer **all** questions.

16. (a) Analyse the orthogonality.

Or

(b) Differentiate the skill from difficulty.

17. (a) Demonstrate on the channels of information gameplay.

Or

(b) Illustrate about structuring a game.

18. (a) Explain on transmedia world.

Or

(b) Discuss on common elements of successful worlds.

19. (a) Describe about pattern inside patterns.

Or

(b) Narrate on factors of interest.

20. (a) Give a detailed note on flow of influence.

Or

(b) Elaborate on ethics in game design.

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C–2386	Sub. Code
	83415

B.Sc. DEGREE EXAMINATION, APRIL 2024

First Semester

Game Design and Development

VISUALIZATION FOR GAMES

(2023 onwards)

Duration : 3 Hours Maximum : 75 Marks

Section A $(10 \times 1 = 10)$

Answer **all** questions.

1. In perspective terminology, what does "foreshortening" refer to?
   (a) The distortion of shapes in the foreground
   (b) The fading of colours with distance
   (c) The convergence of parallel lines
   (d) The position of the observer in the game world

2. How many primary types of perspective views are typically used in visualizing scenes in games and art?
   (a) One (b) Two
   (c) Three (d) Four

3. When discussing "essentials of human figure drawing." what does the term "dynamic aspect' refer to?
   (a) The precise measurements of body parts
   (b) The inclusion of intricate background details
   (c) The portrayal of a figure's personality and emotion
   (d) The focus on overall movement, energy, and flow in the drawing

4. In figure drawing, what is the primary role of proportion"?

   (a) It helps convey the personality and emotion of the figure

   (b) It captures the overall movement and mood of the subject

   (c) It ensures that body parts are realistically sized in relation to one another

   (d) It defines the details and intricacies of the figure

5. In the context of design, which elements refer to the building blocks that make up a design, such as lines, shapes, and colours?

   (a) Principles of design

   (b) Gestalt principles

   (c) Visual composition

   (d) Elements of design

6. What are Gestalt principles in design primarily concerned with?

   (a) Creating visual chaos

   (b) Achieving asymmetry

   (c) Organizing visual elements into coherent wholes

   (d) Focusing on individual design elements

7. When creating textures, what is one useful tip to enhance the visual quality of the design?

   (a) Keep all elements in the same plane to ensure uniformity

   (b) Avoid using a variety of patterns and materials

   (c) Incorporate variations in shading, size, and pattern to add interest

   (d) Use a limited color palette to simplify the design

8. Which of the following is not one of the commonly recognized types of textures in design?

(a) Smooth texture (b) Tactile texture

(c) Visual texture (d) Auditory texture

9. Which of the following is not one of the common styles in concept art mentioned in the content?

(a) Cartoony (b) Realism

(c) Hybrid (d) Cubist

10. In concept art, what is the term used for the process of creating a simplified and stylized representation of a complex subject?

(a) Abstraction (b) Realism

(c) Impressionism (d) Hyperrealism

Section B

$(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Discuss on vanishing point.

Or

(b) Explore on linear perspective construction.

12. (a) Demonstrate about line of action.

Or

(b) Discuss on stick figure.

13. (a) Narrate on colour harmony.

Or

(b) Describe about types of graphics.

14. (a) Discuss about the understanding of scale and proportion.

Or

(b) Illustrate on different environments.

15. (a) Differentiate between the realism and hybrid.

Or

(b) Describe about world building.

Section C $(5 \times 8 = 40)$

Answer **all** questions.

16. (a) Analyse on perspective views.

Or

(b) Discuss on types of perspective views.

17. (a) Demonstrate on the relative proportion of various parts of body.

Or

(b) Illustrate about figure drawing basics.

18. (a) Explain on colour contrast.

Or

(b) Differentiate additive model from subtractive model.

19. (a) Describe about application of texture and colouring in relation to the relevant subject.

Or

(b) How would you understand the foreground, mid ground and background colour textures?

20. (a) Give a detailed note on story boards.

Or

(b) Elaborate on environment sketching.

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C–2387	Sub. Code 83423

B.Sc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Game Design and Development

INTERACTIVE MEDIA DEVELOPMENT

(2023 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** questions.

1. What is the primary purpose of an operating system (OS) in a computer system

   (a) Running applications

   (b) Managing hardware resources

   (c) Providing internet connectivity

   (d) Creating graphical user

2. What is the purpose of a Memory Management Unit (MMU) in a computer system?

   (a) Allocating CPU resources

   (b) Translating virtual addresses to physical addresses

   (c) Managing device drivers

   (d) Providing a user interface

3. A _____ is a data item whose value cannot change during the program's execution.

   (a) Constants (b) Array

   (c) Pointer (d) Looping

4. ———— loop is a sequence of instruction is that is continually repeated until a certain condition is reached.

(a) Constants (b) Array

(c) Pointer (d) Looping

5. ———— is an array that is organized in rows and columns.

(a) One dimensional array

(b) Two-dimensional array

(c) 3D array

(d) Multi-dimensional array

6. ———— are a powerful data structure used to store and manage data organizationally, level.

(a) One dimensional array

(b) Two-dimensional array

(c) 3D array

(d) Multi-dimensional array

7. _____ is a special initialization function that is automatically called whenever a class is declared.

(a) Encapsulation (b) Constructors

(c) Destructors (d) Polymorphism

8. _____ is a feature of object-oriented programming languages that allows a specific routine to use variables of different types at different times.

(a) Encapsulation (b) Constructors

(c) Destructors (d) Polymorphism

9. _____ used to refer to the object that is being created and set its data member.

(a) Arrays (b) Templates

(c) Pointers (d) Enumerations

10. _____ is a data structure consisting of a collection of elements (values or variables), each identified by at least one array index or key.

(a) Arrays (b) Templates

(c) Pointers (d) Enumerations

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Brief on overview of operating system, core functions and its types.

Or

(b) Explain about the classification and basic anatomy of computer system.

12. (a) Summarize the role of inline and recursive functions with examples.

Or

(b) Enlist the roles of the following :

(i) Data types

(ii) Conditional statements

(iii) Constants.

13. (a) Explain the role of pointers, types and state its pros and cons.

Or

(b) Highlight the role of the following :

(i) Passing pointers to functions

(ii) Passing arrays to functions.

14. (a) Infer the role and types of polymorphism.

Or

(b) List the roles of virtual function and function overloading with suitable examples.

15. (a) Explain in detail about data structure types and standard template libraries.

Or

(b) Explain the role of algorithms and its types.

Part C $(5 \times 8 = 40)$

Answer **all** questions.

16. (a) Define problem solving and steps involved in problem solving.

Or

(b) Summarize the role of memory management, processors and output devices.

17. (a) Define data types, explain common data types with their functions.

Or

(b) Summarize on looping and its functions, types.

18. (a) Explain the role of array and brief it types.

Or

(b) Highlight the features on user defined data types, union and enum structures.

19. (a) State the role and types of encapsulations, and state its pros and cons.

Or

(b) Compare the role of constructors and destructors, and state its pros and cons.

20. (a) Highlight the role of frees and graphs with suitable justifications.

Or

(b) Conclude the role of sorting and iterators.

C–2388

Sub. Code
83425

B.Sc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Game Design and Development

2D GAME ART

(2023 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 1 = 10)

Answer **all** questions.

1. What is the significance of graphics in web design

   (a) Impact on user engagement

   (b) Enhancing website aesthetics and user experience

   (c) Slowing down website loading times

   (d) Reducing web site accessibility

2. Which colour manipulation technique is commonly used to create shadows and highlights in game art

   (a) Gradient mapping

   (b) Tinting

   (c) Saturation adjustment

   (d) Ambient occlusion

3. In the context of game art, what does the "Gradient" tool allow artists to do?

(a) Apply realistic textures

(b) Create pixel art effects

(c) Blend colours smoothly across an area

(d) Add 3D effects to images

4. Which tool is commonly used for drawing freehand lines and sketches in game art creation?

(a) Brush tool

(b) Pen tool

(c) Shape tool

(d) Clone Stamp tool

5. Which type of layer is commonly used for creating animations in game art

(a) Adjustment Layer

(b) Shape Layer

(c) Smart Object Layer

(d) Animation Layer

6. Which tool in Adobe Illustrator allows you to distort and transform objects in game art

(a) Gradient Tool (b) Scale Tool

(c) Warp Tool (d) Rotate Tool

7. In Adobe Illustrator, what is the purpose of the "Path" menu

(a) Edit vector paths

(b) Nevigate through layers

(c) Apply filters

(d) Manage colour profiles

8. What is a gradient map in game art used for

(a) Creating realistic 3D models

(b) Adding motion blur to animations

(c) Applying colour variations to pixel art

(d) Adjusting audio levels

9. In matte painting, what does the term "matte" refer to

(a) A flat colour layer

(b) Shiny surface texture

(c) 3D modelling technique

(d) Dynamic lighting effect

10. Which file format is commonly used for storing animated sequences in game development

(a) JPG (b) PNG

(c) GIF (d) BMP

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Explain the role of filtering in game art, specifically in the context of texture filtering.

Or

(b) Compare and contrast raster graphics and vector graphics in the context of game art.

12. (a) Compare and contrast the functionality of the "lasso tool" and the "dodge and burn tool" with suitable examples.

Or

(b) Describe the importance of crop, stamp and type tools, and their functions.

13. (a) Define colour balance in the context of game art. Explain two colour balance adjustment tools used for game art.

Or

(b) Discuss the application and types of filters used in game art.

14. (a) Discuss the role, uses and purpose of a clipping mask in the context of game art.

Or

(b) Explain the importance of logo design and its qualities for game art.

15. (a) Express on digital and matte painting and their role.

Or

(b) Discuss how the character design and sketching used in games, especially for character animations.

Part C

$(5 \times 8 = 40)$

Answer **all** questions.

16. (a) Brief the importance of graphics, core functions and elaborate its types in game art.

Or

(b) Summarize the role of colour manipulation, silhouetting in the context of game art, and why is it important.

17. (a) Describe key features of widely used image editing applications in the game development industry.

Or

(b) Examine the role of the "gradient tool, paint bucket tool" in game art. How these employed to create depth, lighting effects, or smooth transitions in game assets?

18. (a) Discuss the significance, types of layers in game art creation. How do layers contribute to the organization and flexibility of a game artist's workflow?

Or

(b) Compare and contrast the threshold function and gradient map in game art applications. How are these tools distinct in their functionalities?

19. (a) Briefly describe the essential selection tools and their importance in Adobe Illustrator used for game art creation.

Or

(b) Define digital illustration in the context of game art. How does digital illustration differ from traditional illustration methods, and what advantages does it offer.

20. (a) Define GUI (Graphical User Interface) in the context of game art. How does a well-designed GUI contribute to the overall gaming experience.

Or

(b) Explain the importance of background illustrations and animations in game art. How does they contribute to the overall gaming experience?

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