C–3721	Sub. Code
	83413

B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

PROFESSIONAL CONTEXT TECHNOLOGIES AND COMMUNICATION METHODS

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define aesthetics

2. Explain any two game genres.

3. Define initialization.

4. Define premise.

5. What is called as game balance?

6. Write about interactive Audio environment.

7. Explain Action points.

8. What is called as Territory control?

9. What are called as killers in game taxonomy?

10. Define ergodic literature.

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

Answer **all** questions, either (a) or (b).

11. (a) Write a note on the violence in video games.

Or

(b) Explain the asymmetric positions in games.

12. (a) What are called as premade challenges in gameplay?

Or

(b) Explain braided plot.

13. (a) Explain the reality vs. virtual world in pokémon game.

Or

(b) Write about the impossible architecture of video games.

14. (a) Write about sandbox modes.

Or

(b) Define role play.

15. (a) Explain math, instincts and play testing in game balancing techniques.

Or

(b) Explain the LeBlanc's taxonomy of game pleasures.

Part C (3 × 10 = 30)

Answer **all** questions, either (a) or (b).

16. (a) Write an essay on the human computer interaction, focus on artificial intelligence.

Or

(b) Explain the fundamentals of interactive media in social media games and applications.

17. (a) Explain the behavior of complex systems which are classified as ordered to chaotic.

Or

(b) Create a game character by giving positive and negative power to it. Sketch the character with more attributes.

18. (a) Take on online android game and analyze its dynamic difficulty balancing elements.

Or

(b) Explain the audience targeting for the gaming industry.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

VISUALIZATION FOR GAMES

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is foreshortening?

2. Define Horizon line.

3. What do you mean by academic figure?

4. Define contrapposto.

5. What is the application of value?

6. What is meant by Golden ratio?

7. What is an inverted texture?

8. Define proportion.

9. What is purpose of storytelling?

10. What is a silhouette?

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

Answer **all** questions, by choosing either (a) or (b).

11. (a) Differentiate one point and two point perspective.

Or

(b) Write a note on Aerial perspective.

12. (a) What is the importance of main line of action in figure drawing?

Or

(b) Write a brief note on Gesture drawing.

13. (a) Write a note on the types of balance.

Or

(b) Write a short note on Z and F layout.

14. (a) What are the various forms of texture?

Or

(b) What is the difference between scale and proportion in design?

15. (a) Write a note on character sketching.

Or

(b) Mention the importance of script writing in concept art.

Part C (3 × 10 = 30)

Answer **all** questions, by choosing either (a) or (b).

16. (a) Write a detail note on the various types of linear construction method.

Or

(b) Explain the detail about the various steps involved in the process of human figure drawing with sketches.

17. (a) Write a detail note Gestalt's principle with diagrammatic representations.

Or

(b) Discuss the importance of dodging and burning in colour blending.

18. (a) Write a detail note on texturing tools and its applications.

Or

(b) Write in detail about the various types of transitions.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

PROGRAMMING FOR INTERACTIVE MEDIA

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

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

Answer **all** questions.

1. Define Bug.

2. What do you mean by cache?

3. What is interpreter?

4. What do you understand by the term looping?

5. What are raw pointers?

6. Define Gap buffer.

7. What is meant by Ad hoc polymorphism?

8. Define Abstraction.

9. Define Mutation.

10. What are Iterators in python?

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

Answer **all** questions, by choosing either (a) or (b).

11. (a) What are the characteristics of computer?

Or

(b) Write a note on history of Computers.

12. (a) Explain the syntax for for-loop.

Or

(b) Write a single line program to write Hello word.

13. (a) Write about the various operations that can be performed on arrays.

Or

(b) Write a note on User defined data types.

14. (a) Write a short note on overriding in Java.

Or

(b) What are the levels of abstraction?

15. (a) Write a short note on mutating sequence algorithm.

Or

(b) What are the three classes of containers?

Part C (3 × 10 = 30)

Answer **all** questions, by choosing either (a) or (b).

16. (a) Explain in detail about the different types of software.

Or

(b) Explain in detail about the C-data types.

17. (a) Write in elaborate about the different types of arrays.

Or

(b) Discuss in detail the ways to create object of a class.

18. (a) Explain in detail about the various types of operators in computer program.

Or

(b) Discuss about the various types of shortest path Algorithms.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

2D GAME ART

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

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

Answer **all** questions.

1. What is Raster graphics?
2. Define file format.
3. What is the use of stamp tool?
4. What is the purpose of lasso selection tool?
5. What is a Photoshop brush?
6. Define smart object.
7. What is the use of a brush tool?
8. What is properties panel?
9. What is character design?
10. Define pixel Art.

Part B (5 × 5 = 25)

Answer **all** questions, by choosing either (a) or (b).

11. (a) What is difference between vector graphics and raster graphics?

Or

(b) Write a note on silhouetting.

12. (a) Write a short note on edge detections.

Or

(b) Write a brief note on Photoshop work area.

13. (a) How will you apply Photoshop layer styles and share them between layers?

Or

(b) Write a short note Bezier curve and its properties.

14. (a) What is clip masking. Explain how it works.

Or

(b) Write a note on the parthfinder panel and its applications in the illustrator.

15. (a) Write a note on the importance of character design and sketching.

Or

(b) Mention the steps involved in creating sprite sheets.

Part C (3 × 10 = 30)

Answer **all** questions, by choosing either (a) or (b).

16. (a) Write a detail note on the principles and techniques of image manipulation.

Or

(b) Discuss hue, brightness and saturation. What is the difference between them?

17. (a) Write a detail note on the various plugins of illustrator.

Or

(b) What are small objects and how you can use them effectively? Give the steps involved in creating a smart object.

18. (a) Write a note on (i) Healing brush Tool (ii) Magic Wand selection Tool (iii) Sharpen and blur tool (iv) Paint bucket tool (v) Foreground and background tool.

Or

(b) Write in detail about the digital painting and its application.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Semester

GAME ENGINE — I

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is a world space?
2. Define inverse Kinematics.
3. What is meant by Inspector?
4. How does a Navmesh Work?
5. Abbreviate IMGUI.
6. What is meant by Occlusion culling?
7. Define virtual reality cloud.
8. What are clipping plane?
9. What is spawning?
10. Define HUD.

Part B (5 × 5 = 25)

Answer **all** questions, by choosing either (a) or (b).

11. (a) What is the difference between a mesh and a model?

Or

(b) What is 3D rigging for animation and character design?

12. (a) Write the role of scripting languages in game programming.

Or

(b) Write a brief note on Terrains.

13. (a) Write a note on Navigation and Pathfinding.

Or

(b) Write short note character controllers.

14. (a) What are the uses of immediate mode GUI.

Or

(b) What are the two main properties that control what the camera sees?

15. (a) Write a note on spawning of games.

Or

(b) What are the principles of UI design?

Part C (3 × 10 = 30)

Answer **all** questions, by choosing either (a) or (b).

16. (a) Write a detail note on the various concepts that make the difference between 2D and 3D games.

Or

(b) Explain the detail about the profiler window and UI components.

17. (a) Write a detail note on the characteristics of scripting and its application.

Or

(b) The art of making game cinematics-Discuss.

18. (a) Write a detail note on the various principles and elements of UI.

Or

(b) Write a detail note on information sharing to HUD.

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B.SC. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Semester

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 called a reference surface?
4. What is the use of the Trim tool?
5. Explain Maya's hyper shade.
6. Define simulated reflections.
7. What do you mean by EP curve tool?
8. What is called automotive design?
9. Define vegetation.
10. Write about the real time strategy game genre.

Part B (5 × 5 = 25)

Answer **all** questions, either (a) or (b).

11. (a) Explain the process of lock and unlock the length of a curve in Maya.

Or

(b) How will you extend a surface to a certain distance in Maya?

12. (a) Explain the three Boolean operations.

Or

(b) What is bevel width and extrude height?

13. (a) How does Bump mapping work?

Or

(b) What is planar mapping in Maya?

14. (a) What is called clipping mask in Adobe Photoshop?

Or

(b) Explain move seam command.

15. (a) What is called Avatar?

Or

(b) What does a 3D environment artist do?

Part C

(3 × 10 = 30)

Answer **all** questions, either (a) or (b).

16. (a) Write an introduction to the orthographic views and explain how to make effective use of them.

Or

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

17. (a) Write about texturing and shading in polygonal modeling.

Or

(b) Explain how to do detailing and texturing a Hard surface 3D vehicle for games.

18. (a) Write an essay on the Game prop modeling fundamentals.

Or

(b) What are the three phases of scenic design for a game? Explain.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Semester

WEB GAME DEVELOPMENT

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

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

Answer **all** questions.

1. What is meant by <source>?

2. Define metadata Tag.

3. What is the purpose of validation?

4. How does GET and POST method work?

5. What is API framework?

6. What is meant by Javascript framework?

7. Define collision detection.

8. What are sprites in game development?

9. What is game object listener?

10. What is meant by DOM?

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

Answer **all** questions, either (a) or (b).

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

Or

(b) What is the difference between an aside tag and an article tag?

12. (a) What are the different ways in which inheritance can be implemented?

Or

(b) Explain password validation and password matching.

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

Or

(b) What is hero slider?

14. (a) Draw the five basic geometric shapes and identify those.

Or

(b) Explain game canvas.

15. (a) What is an asynchronous request response?

Or

(b) How to implement a Game clock?

Part C (3 × 10 = 30)

Answer **all** questions, either (a) or (b).

16. (a) Write an essay on HTML Audio, HTML video focus on DOM methods, properties and events.

Or

(b) Explain the following (i) nav tag (ii) section (iii) header (iv) content and (v) media tags.

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

Or

(b) Explain the process of importing and exporting data form one database to another database.

18. (a) How to implement jumping, gravity, falling in 2D Javagame? Explain.

Or

(b) Explain the differences between web and mobile game user interface.

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B.Sc. DEGREE EXAMINATION

GAME DESIGN AND DEVELOPMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

DIGITAL MODELING — II

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. How does lossy compression work?

2. What is surface luminance?

3. What is a diffuse map?

4. Define skin.

5. What is a curvature map?

6. How does global illumination work in designs?

7. What is basic color theory?

8. What is mesh in animation?

9. Define character Gesture.

10. What is the use of character reference?

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

Answer **all** questions, by choosing either (a) or (b).

11. (a) What is tile texture?

Or

(b) Explain texture compression.

12. (a) Explain sphere mapping.

Or

(b) What do texture nodes do?

13. (a) How to create a rusty texture in photoshop?

Or

(b) What is compositing in photoshop?

14. (a) Why do they call them skinned meshes?

Or

(b) What is vehicle unwrapping?

15. (a) Explain the use of Zbrush concept in texturing a video game character.

Or

(b) What is considered a low poly character?

Part C (3 × 10 = 30)

Answer **all** questions, by choosing either (a) or (b).

16. (a) Write a detailed note on the benefits of modular design.

Or

(b) What are the different types of Graphic image file formats used in the graphic design industry? Explain.

17. (a) Explain the use of color in maps.

Or

(b) Explain the rendering process for architecture, landscape and interior designs.

18. (a) Is proportion more important than style? Explain the techniques used to set up proportions for a sports car sketch.

Or

(b) How color theory and design decisions of a character reflect the character's feelings and how to decide on the audiences reactions? Explain.

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