

CISC 3667 Final Exam Question Bank

Sample Multiple Choice:

1. In a cooperative cooking game where players either succeed or fail together, what feature still qualifies it as a game under Maroney's definition?
 - A. Lack of individual winners
 - B. Presence of structured goals and rules defining play
 - C. Requirement of an impartial judge
 - D. Use of combo scoring systems

2. According to Crawford, which item becomes a game only once rules and objectives are added to it?
 - A. Chess
 - B. A basketball used without any defined play structure
 - C. Jigsaw puzzles
 - D. Timed obstacle course

3. A disaster-response game emphasizes solving problems as a coordinated group. What aesthetic is most central to this experience?
 - A. Challenge
 - B. Fellowship
 - C. Sensation
 - D. Fantasy

4. A designer wants to attract players who thrive on asserting dominance within a system. What addition is most likely to appeal to them?
 - A. Expanded cooperative missions
 - B. Mechanics that allow direct confrontation with other players
 - C. Extensive item crafting
 - D. Story-driven NPC interactions

5. Achievers, in Bartle's system, align with which card suit?
 - A. Hearts
 - B. Diamonds
 - C. Spades
 - D. Clubs

6. Players who enjoy discovering how systems work beneath the surface are associated with which suit?
 - A. Diamonds
 - B. Spades
 - C. Hearts
 - D. Clubs

7. Players most interested in forming relationships within the virtual world correspond to which suit?

- A. Diamonds
- B. Clubs
- C. Hearts
- D. Spades

8. Players who derive fun from influencing—or disrupting—others map to which suit?

- A. Spades
- B. Hearts
- C. Diamonds
- D. Clubs

9. When a designer selects cardboard stand-ins instead of sculpted pieces, which MDA component is most affected?

- A. Narrative structure
- B. Mechanics
- C. Aesthetics
- D. Technical constraints

10. Which time structure best describes competitive chess?

- A. Only continuous time
- B. Only discrete turns
- C. Turn-based play paired with a real-time limit
- D. No time tracking

11. Which detail about a Tetris piece describes an inherent property rather than a momentary condition?

- A. Its rotation
- B. Its classification as a specific tetromino type
- C. Current height of the playfield
- D. Activation of warning mode

12. Which Tic-Tac-Toe rule belongs to the constitutive layer?

- A. Alternating marks
- B. Winning with three in a row
- C. Selecting positions from a 3×3 grid under turn-taking
- D. Drawing the grid on paper

13. A game's identity is primarily defined by which pairing?

- A. Graphic design + social norms
- B. Deep structural rules + surface-level procedures
- C. Player culture + advertisement
- D. Mechanics + story

14. A player deliberately uses rule-legal techniques that diminish others' enjoyment. This reflects:

- A. Dedicated play
- B. Spoil-sport behavior
- C. Unsportsmanlike mistakes
- D. Standard play

15. If players rewrite how turns work in Chutes and Ladders but preserve the "exactly reach 100" requirement, what remained constant?

- A. Operational rules
- B. Implicit rules
- C. Constitutive rules
- D. House rules

16. Which option is not considered an attribute of a chess piece?

- A. Board location
- B. Movement constraints
- C. Being part of a checkmate state
- D. Whether it is captured

17. When a checkers piece becomes a king, this is best seen as:

- A. Changing a static attribute
- B. Reclassifying the object into a new type
- C. Updating a dynamic attribute
- D. Modifying the rule system

18. A board game includes sealed envelopes that introduce new conditions mid-game. These envelopes represent:

- A. Public dynamic information
- B. Information temporarily hidden from players
- C. Perfect information
- D. Permanent rule revisions

19. Why are dominant strategies typically discouraged in game design?

- A. They support creativity
- B. They balance competitive play
- C. They limit meaningful decision-making by funneling players into one option
- D. They expand the verb set

20. What is the function of negative feedback loops in a game?

- A. Increase disparity
- B. Create irreversible leads
- C. Stabilize the game by pushing it back toward balance
- D. Randomize outcomes

21. A compulsion loop is best understood as:

- A. A series of outcomes generated by chance
- B. A repeating action–reward process that sustains engagement
- C. A fairness mechanism
- D. A safeguard against addictive play

22. A game increases incoming threats when the player is performing unusually well. This adjustment demonstrates:

- A. Positive feedback
- B. Negative feedback
- C. A compulsion cycle
- D. Random event insertion

23. After repeated failures, a platformer quietly adds a checkpoint before a difficult jump. This illustrates:

- A. Rubber-banding
- B. Reward-cycle reinforcement
- C. Dynamic Difficulty Adjustment
- D. Encouraging a dominant strategy

24. A game lowers enemy accuracy when a player struggles, but the player never sees this change. This is an example of:

- A. Rubber-banding
- B. Hidden DDA
- C. Random variation
- D. Positive feedback

25. Players become overwhelmed when the number of available choices:

- A. Exceeds their personal preferences
- B. Exceeds what they can reasonably process
- C. Matches their desires
- D. Is determined randomly

26. Triangularity in design concerns balancing:

- A. Skill, story, difficulty
- B. Rewards, punishments, randomness
- C. Risk, reward, and certainty
- D. Space, time, and objects

27. A deck-building game containing many cards that offer no strategically distinct advantage lacks:

- A. Circular balance
- B. Meaningful choices
- C. Triangularity
- D. Introductory fairness

28. A game provides a powerful tool early on, but its upkeep requires dangerous exploration. This design illustrates:

- A. Linear difficulty
- B. Risk–reward triangularity
- C. Symmetrical play
- D. Reduced challenge

29. A designer adds numerous new weapons, but most have virtually identical effects. This violates:

- A. The principle of balanced loops
- B. The principle of meaningful choice
- C. Structural symmetry
- D. Difficulty pacing

30. Opening a loot chest that might give a valuable reward—or nothing at all—primarily tests the player’s sense of:

- A. Randomness
- B. Risk versus reward
- C. Perfect information
- D. Balanced timing

31. A short, rules-light game focused on fast rounds and lively interaction fits best into which genre?

- A. Abstract strategy
- B. Party game
- C. Simulation
- D. RPG

32. Which term refers to narrative elements authored by the designer and placed into the game world?

- A. Player-generated story
- B. Emergent narrative
- C. Embedded narrative
- D. Post-play narrative

33. Narrative that arises from unexpected interactions among players and systems is:

- A. Fixed
- B. Emergent
- C. Scripted
- D. Immutable

34. Clue is an example of emergent narrative primarily because:

- A. It uses scripted dialogue
- B. Each session reveals a unique mystery through deduction
- C. Characters have elaborate backstories
- D. The solution appears mid-game

35. A game whose major story beats remain fixed, but where player choices alter some quests, is best described as:

- A. Fully emergent
- B. Fully linear
- C. Embedded narrative with limited branching
- D. Non-narrative

36. Playtesters feel disconnected from a game's story despite strong visuals. Which issue most likely explains this?

- A. Mechanics reinforce the themes well
- B. Music is too immersive
- C. Too many dialogue choices
- D. Core mechanics fail to support the narrative

37. The primary role of a Game Design Document is to:

- A. Replace team communication
- B. Provide a clear, shared blueprint for the game
- C. Record only characters and plot
- D. Serve as a promotional tool

38. A GDD is best characterized as:

- A. A binding contract
- B. A sketch seldom revised
- C. A collaborative, regularly updated document
- D. A file produced after launch

39. A learning app keeps users engaged through streaks, levels, and instant corrections. This demonstrates:

- A. Complex mechanics
- B. Delayed feedback
- C. Motivation via immediate feedback and rewards
- D. Graphic-heavy immersion

40. Retention rate measures:

- A. Time to complete tutorials
- B. Frequency with which players return after first play
- C. Total achievements
- D. Remaining bugs

41. Cognitive overload occurs when players:
- A. Have too few options
 - B. Must manage more information than they can comfortably handle
 - C. Have too many save slots
 - D. Encounter bright UI colors
42. A crafting system that requires painful button-mashing reflects a problem with:
- A. Aesthetics
 - B. Usability
 - C. Story pacing
 - D. Branding
43. Which UI element would be considered diegetic?
- A. Floating damage text
 - B. On-screen health bar
 - C. An in-world device the character interacts with
 - D. Pause menu
44. Which UI type presents information in the game world yet remains unseen by characters?
- A. Diegetic
 - B. Spatial
 - C. Meta
 - D. Non-diegetic
45. A red flash when the player is injured is best classified as:
- A. Non-diegetic
 - B. Spatial
 - C. Meta UI
 - D. Diegetic
46. A constantly updating minimap belongs to which UI category?
- A. Meta
 - B. Diegetic
 - C. Non-diegetic
 - D. Haptic
47. A projected arc showing where a thrown object will land is an example of a:
- A. Gauge
 - B. Preview element
 - C. Diegetic cue
 - D. Haptic indicator

48. Controller vibration falls under which type of aesthetic feedback?

- A. Audio
- B. Tactile
- C. Meta
- D. Diegetic

49. If a game crashes during loading, the failure occurs in which UX layer?

- A. Fun
- B. Aesthetics
- C. Functionality
- D. Usability

50. If players struggle because menus feel unclear and hard to navigate, the issue lies in:

- A. Aesthetics
- B. Usability
- C. Fun
- D. Functionality

51. A game with outstanding visuals but camera controls that cause frustration most likely fails at:

- A. Functionality
- B. Usability
- C. Aesthetics
- D. Fun

52. A stealth game minimizes HUD elements to create immersion. This design emphasizes:

- A. Usability
- B. Diegetic experience
- C. Meta UI
- D. Shortcut accessibility

53. Loot boxes raise ethical concerns mainly because they:

- A. Always drop rare items
- B. Require skill
- C. Resemble gambling mechanisms
- D. Improve accessibility

54. Which monetization strategy aligns most closely with ethical design practices?

- A. Loot boxes
- B. Pay-to-win upgrades
- C. Clearly priced cosmetic purchases
- D. Currency bundles with unclear conversion rates

Sample Probability/Expected Value Questions:

1. You draw one card from a standard deck of playing cards:
 - If you pick a heart, you will win \$10.
 - If you pick a face card, which is not a heart, you win \$8.
 - If you pick any other card, you lose \$6.

Do you want to play? Explain.

2. The world-famous gambler from Philadelphia, Señor Rick, proposes the following game of chance.

You roll a fair die.

- If you roll a 1, then Señor Rick pays you \$25.
- If you roll a 2, Señor Rick pays you \$5.
- If you roll a 3, you win nothing.
- If you roll a 4 or a 5, you must pay Señor Rick \$10,
- And if you roll a 6, you must pay Señor Rick \$15.

Is Señor Rick crazy for proposing such a game? Explain.

3. You pay \$10 to play the following game of chance. There is a bag containing 12 balls, five are red, three are green and the rest are yellow.

You are to draw one ball from the bag. You will win \$14 if you draw a red ball and you will win \$12 if you draw a yellow ball.

How much do you expect to win or loss if you play this game 100 times?

4. After shooting foul shots for 5 minutes, the player had made 35 shots out of 60. Is it likely or unlikely that if he needs to make two free throws to win the game in a row he will do so?
5. In a rhythm game, you must hit notes perfectly to build a combo. Each note has an independent 80% chance of being hit perfectly. To trigger a “Combo Super” ability, you must hit 5 perfect notes in a row.
 - What is the probability that you trigger the Combo Super on a specific block of 5 notes?
 - Suppose a song has 40 notes, and you look at them in non-overlapping blocks of 5 notes (so 8 blocks total). What is the expected number of blocks in which you trigger the Combo Super?

6. In a tower defense game, your base survives each wave independently with the following probabilities:

- Probability of surviving wave 1: 0.9
- Probability of surviving wave 2: 0.8
- Probability of surviving wave 3: 0.7

You win a bonus if your base survives all three waves in a row.

- What is the probability of surviving all three waves?
- If the bonus is worth 200 points, what is the expected value (in points) of the bonus opportunity?

7. In a deck-building game, your shuffled draw pile currently has 20 cards:

- 4 are Attack cards
- 6 are Defense cards
- 10 are Utility cards

On your turn, you draw 3 cards without replacement.

- What is the probability that all 3 cards are Attack cards?
- What is the probability that you draw at least one Attack card?
- What is the probability that you draw exactly one Attack and exactly two Defense cards?

8. In a digital trading card game, you can buy a booster pack that contains exactly one card.

Each pack costs \$4 and has the following probabilities:

- 10% chance of a Legendary card worth \$20 in the in-game marketplace
- 30% chance of a Rare card worth \$8
- 60% chance of a Common card worth \$2

If you only care about the card's marketplace value (ignore any other fun of opening packs), should you buy this booster pack? Explain your answer using expected value.

Sample Short Response Questions:

FEEDBACK LOOPS & CYBERNETIC SYSTEMS

1. What are the three components of a cybernetic system, and what does each one do?
2. Why is a thermostat considered a feedback system? Explain the loop in your own words.
3. What is the difference between positive feedback and negative feedback in a game system?
4. Why do positive feedback loops tend to create extreme or runaway outcomes?
5. Why do negative feedback loops tend to create balance or equilibrium?
6. In the thermostat example, what makes the loop a negative feedback loop?
7. Give an example of a positive feedback loop from any game you've played.
8. Give an example of a negative feedback loop from a game and explain how it helps balance gameplay.
9. According to Marc LeBlanc, what role does the scoring function play in a game's feedback system?
10. What does LeBlanc mean by game mechanical bias, and how does it act as an activator?
11. Explain why "Positive Feedback Basketball" leads to runaway victories.
12. Explain why "Negative Feedback Basketball" tends to keep score differences close.
13. What does the term rubber-banding mean in game design?
14. Why might a designer intentionally include both positive and negative loops in the same game?

COMPULSION LOOPS

1. What is a compulsion loop (core loop) in game design?
2. Why are compulsion loops considered a type of positive feedback loop?
3. Give an example of a compulsion loop from a common RPG.
4. Why can compulsion loops be both "fun" and potentially "addictive"?
5. Explain how Call of Duty's killstreak system demonstrates a positive feedback loop.
6. Why did developers eventually remove or rebalance killstreak mechanics?

DYNAMIC DIFFICULTY ADJUSTMENT (DDA)

1. What is Dynamic Difficulty Adjustment (DDA)?
2. Describe how Crash Bandicoot uses DDA to help struggling players.
3. Why can DDA feel "unfair" or "cheating" to some players?
4. What challenges arise when trying to use DDA in multiplayer games?

GAME BALANCE (FAIRNESS, CHALLENGE, MEANINGFUL CHOICES) – Fairness

1. What is symmetrical balance? Provide an example.
2. What is asymmetrical balance? Provide an example.
3. What is circular balance, and how does Rock-Paper-Scissors illustrate it?
4. Why is asymmetry often used in role-playing games or team-based sports?

GAME BALANCE – Challenge

1. What happens to player engagement when a game is too easy? Too hard?
2. List two common techniques for balancing challenge in a game.
3. Why are early game levels usually very simple?

GAME BALANCE – Meaningful Choices

1. What is a meaningful choice in game design?
2. Why are meaningless choices bad for gameplay?
3. Define dominant strategy. Why is it harmful to game balance?
4. What is an exploit? Provide an example from the notes.
5. Explain Michael Mateas' rule: If choices > desires = overwhelmed; choices < desires = frustrated.

RANDOMNESS, PROBABILITY & EXPECTED VALUE

1. Define randomness in the context of game design.
2. Why is probability important for game designers?
3. Summarize the Chevalier de Méré story: What misunderstanding led to the invention of probability?
4. What does “enumerate” mean when solving a probability problem?
5. When does “OR mean ADD” in probability? When does it not?
6. When does “AND mean MULTIPLY”?
7. What is the difference between theoretical probability and practical probability?
8. What is a probability distribution curve, and why do game designers use it?
9. Define expected value in game design.
10. Why can the expected value be misleading if the “true value” of an outcome is not measured correctly?
11. Why might a player avoid using the Lightning Bolt attack even though it has the highest EV?

COGNITIVE BIASES & FALLACIES

1. What is the conjunction fallacy?
2. What is the “law of small numbers”? Why is it misleading?
3. What is the representativeness heuristic?
4. How might player psychology lead to misjudging probabilities in games?

SKILL & CHANCE

1. Explain how estimating chance can be a skill in games.
2. Why do even purely skill-based games still involve risk?
3. What is the gambler’s fallacy? Provide an example.
4. Why do players believe they can “control” pure chance, even though they cannot?

GAME GENRES & STORY/NARRATIVE DESIGN

1. What factors help designers determine a game’s genre?
2. Define embedded narrative. Provide an example.

3. Define emergent narrative. Provide an example.
4. How does Clue use player deduction to create an emergent story?
5. Why is world-building important for narrative design?
6. What is the difference between plot, story, and narrative structure?

GAME DESIGN DOCUMENTS (GDD)

1. What is a Game Design Document (GDD)?
2. Why is a GDD important for development teams?
3. List three common sections of a GDD.
4. What is a high concept in a GDD?

SERIOUS GAMES

1. What is a serious game?
2. Provide one example of a serious game and its purpose.
3. Why are games effective tools for education or training?
4. What is the role of “safe failure” in serious games?

UX / UI IN-GAME DESIGN

1. What is the difference between UX and UI in games?
2. What does “usability” mean in game UX?
3. Why does working memory (Miller’s Law) matter when designing menus?
4. Give an example of a real-world usability problem.
5. What are the four types of UI (diegetic, non-diegetic, spatial, meta)?
6. What is a HUD? What kinds of information does it typically display?

FOUR LAYERS OF UX

1. What question does the “Functionality” layer ask?
2. What is the primary goal of the “Usability” layer?
3. What does the “Aesthetics” layer encompass?
4. What psychological needs make up intrinsic motivation in Self-Determination Theory?
5. What is “flow” in gameplay, and what conditions help create it?

ACCESSIBILITY

1. Why is accessibility important in game design?
2. Provide two accessibility features that help players with visual impairments.
3. What is inclusive design?

ETHICS IN GAME DESIGN

1. Why must designers consider addiction and excessive screen time?
2. What makes certain monetization practices unethical?
3. What concerns exist around depictions of violence in games?
4. How can games negatively or positively affect mental health?
5. What makes loot boxes similar to gambling?
6. Why is transparency essential in monetization systems?