

CBCS SCHEME

BIDTK158/258

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Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2023 Innovation and Design Thinking

Time: 1 hrs.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. To empathize, one has to
 - a) Observe
 - b) Engage
 - c) Listen
 - d) All of these
 2. _____ story telling is the most compelling type of story.
 - a) Aural
 - b) Visual
 - c) Textual
 - d) All of these
 3. Which of the following principles are not considered for design thinking?
 - a) Embrace experimentation
 - b) Human centric design
 - c) Profit centric
 - d) Pattern identification for problem solving
 4. Which of the following are not tools of visualization?
 - a) Maps
 - b) Images
 - c) Stories
 - d) Videos
 5. What happens in the test stage of design thinking?
 - a) You conduct a written test of your design team.
 - b) You allow consumers to test a product or service.
 - c) You engage in internal testing with employees.
 - d) You test products design by competitors.
 6. Collecting _____ is an important portion of testing a prototype in the test stage of design.
 - a) Pictures
 - b) Money
 - c) Feedback
 - d) Emails

7. Process Innovation refers to
 - a) The development of a new service
 - b) The development of a new product
 - c) The implementation of new or improved production method
 - d) The development of new product or services
8. What is the first step in The Design Thinking Process?
 - a) Define
 - b) Ideate
 - c) Prototype
 - d) Empathize
9. After you define the problem, the next step is to _____.
 - a) Test
 - b) Prototype
 - c) Ideate
 - d) Empathize
10. Mind maps are used to _____ ideas.
 - a) Generate
 - b) Visualize
 - c) Structure
 - d) All of these
11. Which of these are not components of a mind map?
 - a) Branches
 - b) Arrows
 - c) Central idea
 - d) All of these
12. _____ is used with the objective of identifying needs that customers are often unable to articulate.
 - a) Mind mapping
 - b) Experience mapping
 - c) Story telling
 - d) Rapid concept development
13. Journey mapping maps which phase of activity of service for a customer?
 - a) Before a service
 - b) During a service
 - c) After a service
 - d) All of these
14. A prototype is a simple experimental model of a proposed solution used to
 - a) Test ideas
 - b) Validate ideas
 - c) Both of these
 - d) None of these
15. A Hypothesis is _____.
 - a) A wished for result that the researcher concludes the research with.
 - b) A complicated set of sentences that pulls variables into proposed complex relationships
 - c) A conjecture that is grounded in support background originating from secondary research
 - d) None of the above.
16. Which of these should be completed before you build something?
 - a) Do some research
 - b) Try something
 - c) Reflect on your solution
 - d) Define the problem

17. What is the usual order of problem solving process?
 - a) Try, Reflect, Prepare, Define
 - b) Prepare, Try, Reflect, Define
 - c) Try and Reflect
 - d) Define, Prepare, Try, Reflect
18. Which step of the problem solving process is this? I am thinking of the Pros and Cons to my idea?
 - a) Define
 - b) Prepare
 - c) Try
 - d) Reflect
19. Which of the below firm is associated the most with design thinking?
 - a) IKea
 - b) Ideo
 - c) Idea
 - d) IKeI
20. Design thinking typically helps in _____.
 - a) Innovation
 - b) Data analytics
 - c) Financial planning
 - d) Operational Efficiency
21. Which of the following well known consulting firms are offering design thinking is a solution?
 - a) McKinsey and Co.
 - b) BCG
 - c) Bain and Co.
 - d) All of these
22. During which step of the design process, do you test the solution or product?
 - a) Identify a problem or need.
 - b) Design a solution or product
 - c) Evaluate the solution or product
 - d) Implement the design
23. A company wants to build a new type of spaceship for transporting astronauts to the moon. What should the company do first?
 - a) Evaluate the design
 - b) Build a model
 - c) Test the prototype
 - d) Identify needs
24. An engineer has designed and built a prototype to improve the brake system of a car. What is the next step the engineer should take in the process?
 - a) Test the working prototype
 - b) Make sketches of the prototype
 - c) Evaluate the design for envision
 - d) Collect and analyze the test results
25. Learning Launches are designed to test the key underlying value-generating assumptions of a potential new growth initiative in the market place.
 - a) True
 - b) False
 - c) Cannot be said
 - d) None of these

26. A case study is
 - a) A research strategy
 - b) An empirical inquiry
 - c) a descriptive and exploratory analysis
 - d) All of these
27. MVP stands for
 - a) Minimum Viable Product
 - b) Maximum Viable Product
 - c) Most Viable Product
 - d) None of these
28. At what step do you want to complete the POV – point of view?
 - a) Empathy
 - b) Prototype
 - c) Define
 - d) Ideate
29. The purpose of MVP is not
 - a) Be able to test a product hypothesis with maximum resources.
 - b) Accelerate learning
 - c) Reduced wasted engineering hours
 - d) Get the product to early customers as soon as possible.
30. The three 'I's of design thinking do not include.
 - a) Interest
 - b) Implementation
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31. Collaborative team work is essential in design thinking for
 - a) Equal importance to all members
 - b) Solving multifaceted problems
 - c) Unbiased selection of ideas
 - d) Better failure management
32. Frank Robinson defined and coined the term
 - a) Design thinking
 - b) Mind mapping
 - c) MVP
 - d) Hypothesis
33. User persons are created during which phase of design process?
 - a) Design stage
 - b) Discover stage
 - c) Develop stage
 - d) none of these
34. _____ was IDEO's first expression of design thinking.
 - a) Deep-Design
 - b) Deep-Dive
 - c) Deep-Structure
 - d) Study-Dive

35. Human centric design was reinterpreted as an acronym to mean
 - a) Hear, Create, Deliver
 - b) Hear, Create, Design
 - c) Hold, Create, Deliver
 - d) Hear, Complete, Deliver
36. The ultimate goal of design thinking is to help you design better.
 - a) Services
 - b) Products
 - c) Experiences
 - d) All of these
37. Design thinking typically is a
 - a) Non-linear process
 - b) Linear process
 - c) Cyclic process
 - d) None of these
38. _____ is the way to narrow down the thoughts to reach at the final solution.
 - a) Convergent thinking
 - b) Divergent thinking
 - c) None of these
 - d) Both of these
39. Design thinking follows
 - a) Waterfall model
 - b) Agile methodology
 - c) Both of these
 - d) None of these
40. The goal of the prototype phase is
 - a) To understand what component of your idea didn't work.
 - b) To understand what component of your idea worked.
 - c) Both of these
 - d) None of these
41. BPM stands for
 - a) Building Product Management
 - b) Business Product Management
 - c) Business Process Management
 - d) Basic Product Management
42. Which is not a good interview strategy for the Empathy step?
 - a) Encourage the person to talk about experience
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 - c) Ask follow-up questions to get more information
 - d) Try to uncover needs people may or may not be aware of
43. The final step in the design process is to _____.
 - a) Test
 - b) Define
 - c) Ideate
 - d) Empathize

44. Design thinking is best suited to addressing problems at the intersection of
 - a) Business and society
 - b) Logic and emotion
 - c) Human needs and economic demands
 - d) All of these
45. _____ helps the design team and client to visualize and handle the design concept.
 - a) Define
 - b) Ideate
 - c) Empathize
 - d) Prototype
46. In the create phase we do not
 - a) Recognize existing knowledge in the challenge space.
 - b) Recruit participants for the codesign task from a diverse pool of those affected
 - c) Maintain awareness of sensitivities by avoiding judgements
 - d) Encouraging storytelling and expression
47. Design thinking is also known as
 - a) Adaptable enquiry
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48. Which of the following sequences is correct for waterfall methodology?
 - a) Define – Design – Develop – Test – Deploy
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49. When defining a problem, your problem statement should include a solution?
 - a) True
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50. A college is redesigning its website. Current students are the main users of the website. Which one of the below elements should definitely be on the website?
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Innovation and Design Thinking

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CBCS SCHEME

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Question Paper Version : C

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2023 Innovation and Design Thinking

Time: 1 hrs.]

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48. Which step of the problem solving process is this? I am thinking of the Pros and Cons to my idea?
- a) Define
 - b) Prepare
 - c) Try
 - d) Reflect
49. Which of the below firm is associated the most with design thinking?
- a) IKea
 - b) Ideo
 - c) Idea
 - d) IKeI
50. Design thinking typically helps in _____.
- a) Innovation
 - b) Data analytics
 - c) Financial planning
 - d) Operational Efficiency

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BIDTK158/258[illegible]

Question Paper Version : D

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2023
Innovation and Design Thinking

Time: 1 hrs.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

- Answer all the **fifty** questions, each question carries one mark.
 - Use only **Black ball point pen** for writing / darkening the circles.
 - For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
 - Darkening two circles for the same question makes the answer invalid.
 - Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.
-
- Which of the following well known consulting firms are offering design thinking is a solution?
a) McKinsey and Co.
b) BCG
c) Bain and Co.
d) All of these
 - During which step of the design process, do you test the solution or product?
a) Identify a problem or need.
b) Design a solution or product
c) Evaluate the solution or product
d) Implement the design
 - A company wants to build a new type of spaceship for transporting astronauts to the moon. What should the company do first?
a) Evaluate the design
b) Build a model
c) Test the prototype
d) Identify needs
 - An engineer has designed and built a prototype to improve the brake system of a car. What is the next step the engineer should take in the process?
a) Test the working prototype
b) Make sketches of the prototype
c) Evaluate the design for envision
d) Collect and analyze the test results
 - Learning Launches are designed to test the key underlying value-generating assumptions of a potential new growth initiative in the market place.
a) True
b) False
c) Cannot be said
d) None of these

6. A case study is
 - a) A research strategy
 - b) An empirical inquiry
 - c) a descriptive and exploratory analysis
 - d) All of these
7. MVP stands for
 - a) Minimum Viable Product
 - b) Maximum Viable Product
 - c) Most Viable Product
 - d) None of these
8. At what step do you want to complete the POV – point of view?
 - a) Empathy
 - b) Prototype
 - c) Define
 - d) Ideate
9. The purpose of MVP is not
 - a) Be able to test a product hypothesis with maximum resources.
 - b) Accelerate learning
 - c) Reduced wasted engineering hours
 - d) Get the product to early customers as soon as possible.
10. The three 'I's of design thinking do not include.
 - a) Interest
 - b) Implementation
 - c) Inspiration
 - d) Ideation
11. BPM stands for
 - a) Building Product Management
 - b) Business Product Management
 - c) Business Process Management
 - d) Basic Product Management
12. Which is not a good interview strategy for the Empathy step?
 - a) Encourage the person to talk about experience
 - b) Encourage short answers that get right to the point
 - c) Ask follow-up questions to get more information
 - d) Try to uncover needs people may or may not be aware of
13. The final step in the design process is to _____.
 - a) Test
 - b) Define
 - c) Ideate
 - d) Empathize
14. Design thinking is best suited to addressing problems at the intersection of
 - a) Business and society
 - b) Logic and emotion
 - c) Human needs and economic demands
 - d) All of these

15. _____ helps the design team and client to visualize and handle the design concept.
- a) Define
 - b) Ideate
 - c) Empathize
 - d) Prototype
16. In the create phase we do not
- a) Recognize existing knowledge in the challenge space.
 - b) Recruit participants for the codesign task from a diverse pool of those affected
 - c) Maintain awareness of sensitivities by avoiding judgements
 - d) Encouraging storytelling and expression
17. Design thinking is also known as
- a) Adaptable enquiry
 - b) Strategic design thinking
 - c) Transformation by design
 - d) All of these
18. Which of the following sequences is correct for waterfall methodology?
- a) Define – Design – Develop – Test – Deploy
 - b) Define – Develop – Design – Test – Deploy
 - c) Define – Design – Develop – Deploy – Test
 - d) Design – Define – Develop – Test – Deploy
19. When defining a problem, your problem statement should include a solution?
- a) True
 - b) False
20. A college is redesigning its website. Current students are the main users of the website. Which one of the below elements should definitely be on the website?
- a) College rules and regulations
 - b) Information on faculty members
 - c) Information about courses
 - d) Alumni details
21. Collaborative team work is essential in design thinking for
- a) Equal importance to all members
 - b) Solving multifaceted problems
 - c) Unbiased selection of ideas
 - d) Better failure management
22. Frank Robinson defined and coined the term
- a) Design thinking
 - b) Mind mapping
 - c) MVP
 - d) Hypothesis
23. User persons are created during which phase of design process?
- a) Design stage
 - b) Discover stage
 - c) Develop stage
 - d) none of these

24. _____ was IDEO's first expression of design thinking.
 - a) Deep-Design
 - b) Deep-Dive
 - c) Deep-Structure
 - d) Study-Dive
25. Human centric design was reinterpreted as an acronym to mean
 - a) Hear, Create, Deliver
 - b) Hear, Create, Design
 - c) Hold, Create, Deliver
 - d) Hear, Complete, Deliver
26. The ultimate goal of design thinking is to help you design better.
 - a) Services
 - b) Products
 - c) Experiences
 - d) All of these
27. Design thinking typically is a
 - a) Non-linear process
 - b) Linear process
 - c) Cyclic process
 - d) None of these
28. _____ is the way to narrow down the thoughts to reach at the final solution.
 - a) Convergent thinking
 - b) Divergent thinking
 - c) None of these
 - d) Both of these
29. Design thinking follows
 - a) Waterfall model
 - b) Agile methodology
 - c) Both of these
 - d) None of these
30. The goal of the prototype phase is
 - a) To understand what component of your idea didn't work.
 - b) To understand what component of your idea worked.
 - c) Both of these
 - d) None of these
31. Which of these are not components of a mind map?

a) Branches	b) Arrows
c) Central idea	d) All of these
32. _____ is used with the objective of identifying needs that customers are often unable to articulate.
 - a) Mind mapping
 - b) Experience mapping
 - c) Story telling
 - d) Rapid concept development

33. Journey mapping maps which phase of activity of service for a customer?
 - a) Before a service
 - b) During a service
 - c) After a service
 - d) All of these
34. A prototype is a simple experimental model of a proposed solution used to
 - a) Test ideas
 - b) Validate ideas
 - c) Both of these
 - d) None of these
35. A Hypothesis is _____
 - a) A wished for result that the researcher concludes the research with.
 - b) A complicated set of sentences that pulls variables into proposed complex relationships
 - c) A conjecture that is grounded in support background originating from secondary research
 - d) None of the above.
36. Which of these should be completed before you build something?
 - a) Do some research
 - b) Try something
 - c) Reflect on your solution
 - d) Define the problem
37. What is the usual order of problem solving process?
 - a) Try, Reflect, Prepare, Define
 - b) Prepare, Try, Reflect, Define
 - c) Try and Reflect
 - d) Define, Prepare, Try, Reflect
38. Which step of the problem solving process is this? I am thinking of the Pros and Cons to my idea?
 - a) Define
 - b) Prepare
 - c) Try
 - d) Reflect
39. Which of the below firm is associated the most with design thinking?
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40. Design thinking typically helps in _____.
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 - c) Financial planning
 - d) Operational Efficiency
41. To empathize, one has to
 - a) Observe
 - b) Engage
 - c) Listen
 - d) All of these
42. _____ story telling is the most compelling type of story.
 - a) Aural
 - b) Visual
 - c) Textual
 - d) All of these

43. Which of the following principles are not considered for design thinking?
- Embrace experimentation
 - Human centric design
 - Profit centric
 - Pattern identification for problem solving
44. Which of the following are not tools of visualization?
- Maps
 - Images
 - Stories
 - Videos
45. What happens in the test stage of design thinking?
- You conduct a written test of your design team.
 - You allow consumers to test a product or service.
 - You engage in internal testing with employees.
 - You test products design by competitors.
46. Collecting _____ is an important portion of testing a prototype in the test stage of design.
- Pictures
 - Money
 - Feedback
 - Emails
47. Process Innovation refers to
- The development of a new service
 - The development of a new product
 - The implementation of new or improved production method
 - The development of new product or services
48. What is the first step in The Design Thinking Process?
- Define
 - Ideate
 - Prototype
 - Empathize
49. After you define the problem, the next step is to _____.
- Test
 - Prototype
 - Ideate
 - Empathize
50. Mind maps are used to _____ ideas.
- Generate
 - Visualize
 - Structure
 - All of these

* * * * *