BIDTK158/258/22BD16

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Question Paper Version : B

# First/Second Semester B.E./B.Tech./B.Design Degree Examination, June/July 2025
## Innovation and Design Thinking

Time: 1 hr.                                                                                           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.

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1. Mr. Rahul wants to design a new bed that he can sell to nursing homes to use with their patients. However, Rahul doesn't want anything to do with older adults or people with disabilities. According to the design thinking process, Mr.Rahul will face problems because he is missing _____.
   a) Empathy          b) Creativity          c) Practicality          d) Imagination

2. Mr. Ram is creating a new product for university students. He takes a design thinking approach. His first step is addressing who he is creating the product for and conducts research on understanding this target market. What is this step in the design thinking process?
   a) Define          b) Ideate          c) Empathize          d) Prototype

3. Learning goals in design thinking workshop are related to,
   a) Define learning outcomes          b) Mapping with the problem statement
   c) Understanding culture of the organization d) Defining learning styles

4. During the design thinking workshop, providing introduction is important to engage participants.
   a) True          b) False

5. Closing remarks of the design thinking workshop supports in motivating the participants to apply concepts of design thinking at the workplace.
   a) True          b) False

6. Stages of Design thinking workshop are planning stage and workshop stage
   a) True          b) False

7. In the stages of design thinking empathy means
   a) Identifying areas of concern in the business
   b) Identifying from the persepective of the employees
   c) Identifying from the perspective of the product
   d) All of these

8. You will interview people to gain an understanding of how they feel during the _____
   stage of design thinking.
   a) Test            b) Define          c) Ideate          d) Empathize

9. Prototype should only be demonstrated and tested within the team.
   a) True            b) False

10. No alterations are to be made after the testing phase.
    a) True           b) False

11. Strategic management is the process of setting,
    a) Goals          b) Procedures      c) Objectives      d) All of these

12. Which of the below mentioned is not the practice of integrating design thinking and
    strategic innovation?
    a) Reviewing       b) Stimulating     c) Collaborating   d) All of these

13. Sustaining innovation means,
    a) Concept of improving and growing the existing markets
    b) Create a new value to the existing market and also create a completely new market
    c) Both (a) and (b)
    d) None of these

14. Disruptive innovation means,
    a) Concept of improving and growing the existing markets
    b) Create a new value to the existing market and also create a completely new market
    c) Both (a) and (b)
    d) None of these

15. Radical innovation refers to.
    a) a new technology completely disrupts existing business or economy and creates a new
       business model
    b) refers to a series of small, gradually built improvements to existing products processes
       or methods to maintain competitive position over time
    c) both (a) and (b)
    d) None of these

16. Architectural innovation is described as the reconfiguration of existing product
    technologies,
    a) True           b) False

17. In what type of innovation one or more components of a product is changed while the
    overall design stays the same.
    a) Architectural innovation          b) Modular innovation
    c) Both (a) and (b)                  d) None of these

18. Which of the below mentioned is the feature of strategic innovation?
    a) Concept is based on long term perspective
    b) To create competitive space for the products and services
    c) Combines business process with creative solutions to the problems in the organizations
    d) All of these

19. What are the four quadrants of innovation matrix?
    a) Radically disruptive-incrementally disruptive
    b) Radically sustaining-incrementally sustaining
    c) both (a) and (b)
    d) None of these

20. Benefits of interaction between the design thinking and strategic innovation in an organization are,
    a) Design thinking helps in developing products and services and in turn strategy of the organization.
    b) Design thinking provides an opportunity to integration of new idea essential for the development of right strategy for the organization.
    c) both (a) and (b)
    d) None of these

21. The main uses of a customer journey map are,
    a) This gives design thinkers a near first-hand experience of what a customer goes through.
    b) The map can give us the emotional roller coaster of the designer.
    c) The output of the map is a list of problems that the design techniques involve.
    d) The map also serves as a visual aid to communicate the situation of the user

22. Which among the below options is the most compelling type of story
    a) Visual          b) Textual          c) Graphs          d) None of these

23. Journey mapping is also called as _____ mapping.
    a) Path            b) Experience       c) Conduct         d) Feedback

24. A prototype is a simple experimental model of a proposed solution used to,
    a) Test ideas      b) Validate ideas   c) Both (a) and (b)  d) None of these

25. Which of the following are not tools of design thinking
    a) Co-creation     b) Prototype        c) Mind mapping     d) Online marketing

26. Co-creation with respect to design thinking means
    a) Building a new product with in the available resources.
    b) Any process that brings users and designers together to work towards a shared goal
    c) Finding a new market for the product available
    d) None of these

27. Mind mapping is used for
    a) Visualize       b) Organize         c) Classify         d) All of these

28. Visualization as a tool of design thinking would involve presenting data through
    a) Clear presentations
    b) Images and Stories
    c) Both (a) and (b)
    d) None of these

29. The end goal of value chain analysis is to
    a) Create better value for the customers
    b) To set common skills and goals for value chain partners
    c) Both (a) and (b)
    d) None of these

30. Rapid concept development with reference to design thinking tool refers to,
    a) New business opportunities
    b) Faster thinking ability
    c) Both (a) and (b)
    d) None of these

31. Design thinking supports in
    a) Developing the product
    b) Developing the strategy
    c) Developing the process
    d) All of these

32. What is design considerations are not linked with?
    a) Products
    b) Services
    c) Business
    d) Computers

33. Design thinking supports in developing product features to improve the services to the customers.
    a) Yes
    b) No

34. Design thinkers in an organizations are
    a) People      b) Employees      c) Managers      d) All of these

35. What are the steps of Design Thinking process?
    a) Understand > Draw > Ideate > Create > Test
    b) Empathize > Define > Ideate > Prototype > Test
    c) Empathize > Design > Implement > Produce > Test
    d) Understand > Define > Ideate > Produce > Try

36. Which of the below firm is associated the most with design thinking?
    a) Ikea      b) Ideo      c) Idea      d) Ikei

37. Design thinking helps in?
    a) Innovation
    b) Data analytics
    c) Financial planning
    d) Operational efficiency

38. During which stage would you consult experts to learn more about the areas of concern and gain an understanding of other people's experiences?
    a) Prototype      b) Define      c) Ideate      d) Empathize

39. When defining a problem your problem statement should include solutions?
    a) True      b) False

40. Team based design thinking involves
    a) Right type of team          b) Right team culture
    c) Leadership                 d) All of these

41. Procedure models facilitates communication between
    a) Business Analysts          b) Process Partners
    c) Developers                d) All of these

42. In the last few decades business process model has replaced organization's packages, Time and movement (TMS) and Total Quality Management (TQM).
    a) Yes                   b) No

43. Identify which is not the advantage of business process modeling from below options
    a) Improves process communications
    b) Increase control and consistency
    c) Improves operational efficiency
    d) Decreases market-share and in-turn revenues

44. Agile methods are popular in software industry but other industries do not want to pursue those agile methods.
    a) True           b) False

45. Design thinking features include,
    a) Uses empathy to understand how people feel about using a product or service
    b) Ultimate goal is to improve customer live and knowledge
    c) Both (a) and (b)
    d) None of these

46. Agile method can accommodate changes at any time compared to the waterfall method
    a) True           b) False

47. Design thinking encompasses,
    a) Feasibility      b) Viability      c) Desirability      d) All of these

48. Where does the information of defining the problem in the define stage come from
    a) Testing stage          b) Prototype stage
    c) Ideate stage           d) Empathy stage

49. What is the meaning of SCRUM?
    a) Systematic customer resolution unravelling meeting
    b) Systematic continues recharge unravelling meeting
    c) Systematic customer redesign unravelling meeting
    d) Systematic continues recovery unravelling meeting

50. Agile methodology is a practice,
    a) Continuous iteration of development and testing in the software development process
    b) Continuous thinking of development and verify the software development process
    c) Continuous process of thinking and verify the software development process
    d) Continuous follow up of thinking and design the software development process

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