CBCS SCHEME

BIDTK158/BIDTK258/22BD16

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Question Paper Version : A

First/Second Semester B.E./B.Tech./B.Des. Degree Examination, Dec.2023/Jan.2024
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.

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1. The stages of the design thinking process in order are
   a) Understand > Draw > Ideate > Crate > Test
   b) Empathize > Define > Ideate > Prototype > Test
   c) Empathize > Design > Implement > Produce > Test
   d) Understand > Define > Ideate > Produce > Try

2. The comprehensive principle of design thinking does not include
   a) Relationship   b) Collaboration
   c) Communication   d) Suppliers

3. Design Thinking typically help in _____.
   a) Innovation   b) Data Analysis
   c) Marketing Management   d) Operation Management

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

5. The three I's of design thinking do not include
   a) Interest   b) Implementation   c) Inspiration   d) Ideation

6. In design, where does the information used to put together a problem statement come from?
   a) The design stage   b) The ideate stage
   c) The define stage   d) The testing stage

7. Collecting _____ is an important portion of testing a prototype in the test stage of design.
   a) Pictures   b) Money   c) Feedback   d) E mails

8. A pototype is a simple experimental model of a proposed solution used to
   a) Test ideas   b) Validate ideas
   c) Both   d) None of these

9. Identify the correct statement
   a) To derive the power of design thinking, individuals, teams and organizations must have a leap of faith about the existence of a solution.
   b) Leap of faith is the page in the manual of design thinking containing the core philosophy about design thinking
   c) Design thinking presupposes that some people are inherently creative and become successful in creative product development. The team should have atleast one such person.
   d) None of these

10. Which is not basic modes of thinking?
    a) Analytical   b) Judical   c) Critical   d) Synthetic

11. Design thinker in an organization are
    a) People   b) Employees
    c) Managers   d) All of these

12. What is the main objective of the empathize stage in design thinking?
    a) Understanding the problem   b) Generating ideas
    c) Identifying the user needs   d) Building prototypes

13. Mind mapping diagram provides information about
    a) Customer and product interaction
    b) Idea and its interaction among other ideas
    c) Visualization of problem statement
    d) None of these

14. Value chain analysis process provides
    a) Better understanding of customer expectations
    b) Uncover the information about partners capabilities
    c) Better market analysis
    d) All of these

15. Which one of the below helps in generating hypothesis about potential new business opportunities?
    a) Prototype   b) Rapid concept development
    c) Ideate   d) Learning launches

16. A visualization activity was performed by the employees of a bulb manufacturing company which included information in the form of
    a) Images of various types of bulbs produced by the company
    b) Its application suitability to the customers in the form of stories
    c) Clears or reduces the possibilities of unmatched mental models/pictures
    d) All of the above

17. 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 them
    d) None of them

18. _____ is a tool to use the design details and terms to develop new business opportunities.
    a) Visualization
    b) Journey mapping
    c) Rapid concept development
    d) None of these

19. Which tool is used for feasibility check of assumptions of the new business ideas?
    a) Value chain analysis
    b) Rapid concept development
    c) Prototype
    d) Assumption testing

20. Identify the process that brings users and designers together to work towards a shared goal.
    a) Problem statement formulation
    b) Customer co-creation
    c) Value chain analysis
    d) None of these

21. Which process is a quick and inexpensive learning test to collect market driven data?
    a) Learning launches
    b) Prototyping
    c) Customer co-creation
    d) None of these

22. What is an example of a method for conducting user research?
    a) Surveys
    b) Usability testing
    c) Design sprints
    d) All of these

23. What is the process of collecting and analyzing data on how users interact with a design in real time called?
    a) Real Time design interaction capture
    b) Real Time design analysis
    c) Real Time design interaction analysis
    d) Real Time design interaction capture and analysis

24. What is the main goal of enabling efficient collaboration in digital space?
    a) To create a digital environment where team members can easily share ideas, provide feedback and work together on projects in real time.
    b) To develop a project management software for team members
    c) To train team members on how to use design collaboration software
    d) To implement video conferencing tools for remote team members

25. What is the purpose of user testing?
    a) To gather feedback and identify areas for improvement in a product or service
    b) To create a user-centered design
    c) To create empathy map
    d) To conduct user research

26. Which one of the following is not a part of various business process model steps?
    a) Process maps
    b) Process detection
    c) Process imitation
    d) Process termination

27. An employer Mrs. ABC divides her business processes into basic components based on their functions and performance for the business is called:
a) Building Product Management
b) Business Product Management
c) Business Process Modelling
d) Basic Product Management

28. What is the main focus of design thinking in IT?
a) Efficiency
b) Cost effectiveness
c) User-centeredness
d) Innovation

29. Which stage in Design Thinking Process allows for the collaboration between designers, developers and stakeholders?
a) Empathize
b) Define
c) Ideate
d) Test

30. Which one of the following are advantages of Business Process Modeling?
a) Align operations with business strategy
b) Improves process communication
c) Improves operational efficiencies
d) All of these

31. How can Design Thinking in IT improve product services and processes?
a) By identifying user needs and pain points
b) By considering different perspectives
c) By rapid prototyping and testing
d) All of these

32. Which one of the following is part of Agile Virtual collaboration approach?
a) Allow openness
b) Establish a culture of continuous communication
c) Develop a culture of courage and flexibility
d) All of these

33. What is the main benefit of using a design?
a) Efficiency
b) Cost-effectiveness
c) Improved user satisfaction
d) Innovation

34. Business process modeling replaced the organization's previous effective packages
a) Time and motion study
b) Total quality management
c) a and b
d) None of these

35. Which method can be used to design complex software programs based on models, both structural and behavioural models?
a) Scenario based prototype
b) Agile discussion
c) Simple prototype
d) None of these

36. For a website development project in an industry, the software developers divide the main project into many smaller projects and adopt an iterative approach to incorporate any changes needed as per frequent customer feedback. This type of approach is found in
a) Agile method
b) Waterfall method
c) Sprints
d) All of these

37. A time boxed iteration of continuous development cycle for a planned amount of work that has to be completed by the team and made ready for review is called
   a) Prototyping
   b) Sprint
   c) Experience Design
   d) Business Model Design

38. Which one is the process of setting goals, procedures and objectives in order to make a company or organization more competitive?
   a) Visualization
   b) Strategic management
   c) Group discussion
   d) Prototype

39. Which one of the following is not part of any type of innovation?
   a) Disruptive
   b) Radical
   c) Conceptual
   d) Architectural

40. Which innovation type is related to new concept, product or service which will create new value to the existing market and also create a completely new market?
   a) Incremental
   b) Sustaining
   c) Disruptive
   d) Radical

41. Duration of design thinking workshop can be
   a) 2 hrs
   b) 2 days
   c) one week
   d) Depends on the context of the workshop

42. Which one of the following are part of the scope of strategic innovation?
   a) Managed innovation process
   b) Strategic Alignment
   c) Industries foresight and implementation
   d) All of these

43. 'The willingness to try something by building, it is the evidence of experimentation'. The statement refers to
   a) Story telling
   b) Prototyping
   c) Mind mapping
   d) Conceptualizing

44. How does experience design relate to humanization in product development?
   a) Experience design focuses on creating a positive user experience while, humanization focuses on making products more user friendly.
   b) Experience design and humanization are unrelated.
   c) Experience design and humanization focuses on creating a positive user experience
   d) None of these

45. Which one is not part of planning stage of design thinking workshop?
   a) Learning goals
   b) Pre-meeting
   c) Developing flow of activity
   d) Idea testing

46. _____ innovation happens when a new technology completely disrupts existing business or economy and creates a new business model.
    a) Incremental
    b) Sustaining
    c) Disruptive
    d) Radical

47. Which of the following is not consideration while representing the story of the product?
    a) The central idea of the product
    b) Engaging the participants
    c) Other products in market
    d) Incorporate adequate detail

48. A company collects, analyses and rework by considering negative feedback to learn and improve to create a solution that is
    a) Desirable to customer
    b) Feasible to implement
    c) Viable for long term success
    d) All of these

49. What step of the design process was not considered for this tea pot?
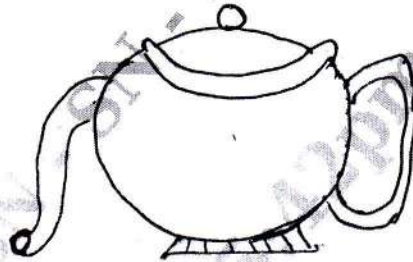
    a) Research and Design
    b) Prototype and Testing
    c) Design and Manufacturing
    d) All of these

50. Mr. XYZ is starting a clothing company. Instead of making clothing that fits models, he wants to start thinking about what non models/common people/end users need and plan his design around them. Accordingly, he is engaging in
    a) Design thinking
    b) Model design
    c) End user generation
    d) Model thinking

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