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First/Second Semester B.E./B.Tech./B.Arch./B.Planning Degree Examination, Jan./Feb. 2023
Innovation and Design Thinking
(COMMON TO ALL BRANCHES)

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. Design thinking process examines the results and reframes the problem. This shows the,
   a) Iterative approach to design
   b) Linear approach to design
   c) Social approach to design
   d) Analytical approach to design

2. Which of the following follows Ideating process?
   a) Develop MVP
   b) Initiate Production
   c) Develop prototype
   d) Prepare questionnaire

3. Design thinking involves
   a) Result based approach
   b) Solution based approach
   c) Technology based approach
   d) Business based approach

4. Which of the following is part of the toolkit of a Design Thinker?
   a) Tabulation
   b) Story telling
   c) Derivation
   d) Calculation

5. Preparing scaled model to explain the design of a house is an example of,
   a) MVP
   b) Brief
   c) Drawing
   d) Prototype

6. Prototypes can be built for,
   a) Products
   b) Financial services
   c) Urban projects
   d) All of the above.

7. Preparing and representing project information in the form of stories, maps and image is,
   a) Journey mapping
   b) Value chain analysis
   c) Prototyping
   d) Visualization

8. Which of the following helps in identifying the needs of the customers which the customers themselves are unable to articulate?
   a) Prototyping
   b) Visualization
   c) Experience mapping
   d) Project definition

9. "Innovation begins with the eye" indicates which quality of Design Thinker -
   a) Ability to draw
   b) Ability to think
   c) Ability to observe
   d) Sharp eyesight

10. To Empathize in Design thinking means,
    a) To have sympathy
    b) To be socially responsible
    c) To understand the technology
    d) To understand the user

11. What does Teamwork indicate?
    a) Collective Ownership
    b) Collaborative efforts
    c) Hierarchy in the system
    d) Both (a) and (b)

12. The presence of multiple products in the market to serve the same purpose/use indicates which of the following?
    a) There is no one BEST way to design
    b) The products are attractive
    c) The market is large
    d) Large number of users

13. Connecting various thoughts through the Design process to the central idea or concept is,
    a) Journey mapping
    b) Mind Mapping
    c) User survey
    d) Assumption testing

14. Through the co-creation process, the groups involved are,
    a) Users   b) Designers   c) Both (a) and (b)   d) None of the above

15. The first step of customer journey mapping is,
    a) Define   b) Negotiate   c) Compare   d) Select

16. "Experience Economy" has resulted in,
    a) Passive consumption
    b) Active participation
    c) Minimum consumption
    d) No participation

17. Which of the following contributes to Design Experience?
    a) The functional aspect of the product
    b) The nature of service
    c) Both (a) and (b)
    d) None of the above

18. Which of the following is not a phase in the design thinking process?
    a) Ideate   b) Empathize   c) Define   d) Tabulate

19. Which of the following is a pitch tool for "real world test"?
    a) Design brief   b) Prototype   c) Story board   d) All of these

20. Completely design full scale usable chair represents,
    a) Prototype   b) MVP   c) Model   d) Representation

21. Design thinking assists in,
    a) Exploring new possibilities
    b) Creating new choices
    c) Bringing new solutions to the world
    d) All of these

22. Understanding the design problem involves,
    a) Asking right questions
    b) Discussion of history
    c) Displaying the Design brief
    d) None of these

23. Which of the following give functional appearance of a product?
    a) Prototype
    b) 3D model
    c) MVP
    d) Drawings

24. Formulating the brief is an important part of Design Thinking process. The brief is generated from,
    a) User requirement
    b) Available technology
    c) Market analysis
    d) All of these

25. "Products are shaped by stories that people tell about them". The phrase indicates the importance of,
    a) Importance of products
    b) User experience
    c) Importance of stories
    d) Importance of narration

26. What does 'Active Engagement' with the product mean?
    a) Engaging with the finer aspects of the product beyond the utility.
    b) Engaging with functional aspects of the product
    c) Both (a) and (b)
    d) None of these

27. "It is difficult to think of the right idea for the first time". The statement indicates which of the following is importance after ideation.
    a) To define all details of the product
    b) Prepare rapid prototypes
    c) To think of more ideas
    d) None of these

28. Standardization is a necessity with,
    a) Industrialization
    b) Design exploration
    c) Prototyping
    d) Craft Guilds

29. Translating an idea into a tangible product in the early stage of design exploration is,
    a) Visualization
    b) Imagination
    c) Rapid prototyping
    d) MVP

30. Innovation in an organization should be,
    a) Technology Driven
    b) Organization driven
    c) Customer Driven
    d) Economics driven

31. Identify the advantages of Rapid prototyping,
    a) Arrive at relevant results
    b) Arrive at results faster
    c) Allows experimentation
    d) All of these

32. Extension of a successful brand or iterating a current product is,
    a) Revolutionary Innovation
    b) Evolutionary Innovation
    c) Incremental Innovation
    d) Dynamic Innovation

33. Adapting a product to a new customer base is,
   a) Dynamic Innovation
   b) Incremental Innovation
   c) Revolutionary Innovation
   d) Evolutionary Innovation

34. Organizations focusing on only Incremental Innovation exhibit,
   a) Short sightedness
   b) Vulnerability
   c) Lack of vision
   d) All of these

35. Which of the following is true about Revolutionary Innovation?
   a) Products are new
   b) Customer base is new
   c) Both (a) and (b)
   d) None of these

36. Disruptive Innovation results due to,
   a) Lack of Technology Application
   b) Substandard quality / service
   c) Lack of Human centered Analysis
   d) Lack of investment

37. "Industrialisation Served Art from utility". This is statement emphasizes,
   a) Application of Art
   b) Standardization
   c) Humanization
   d) Product development

38. Product Installation, Repair and Maintenance are part of,
   a) Inbound logistics
   b) Operations
   c) Outbound logistics
   d) Services

39. Machining and Production are part of,
   a) Inbound logistics
   b) Operations
   c) Outbound logistics
   d) Services

40. Which of the following is not an Agile Collaborative principle?
   a) Break Silos of the project
   b) Customer satisfaction
   c) Adaptability to project brief
   d) Predetermined hierarchy in teams

41. Empathy in design concerns with which of the following :
   a) Design with a predetermined approach
   b) Human centric approach
   c) Both (a) and (b)
   d) None of these

42. Bulk production of goods which are standardized results in,
   a) Loss of deeper human engagement
   b) Personalizing products
   c) Consumer engagement passive
   d) Both (a) and (c)

43. The three dimensions of collaboration in Agile are,
   a) Awareness, Articulation, Appropriation
   b) Awareness, Assertion, Appropriation
   c) Articulation, Annotation, Awareness
   d) Awareness, Articulation, Arbitration

44. What are the Five primary activities of value chain model?
   a) Inbound logistics, operations, outbound logistics, marketing and sales, technology development
   b) Inbound logistics, operations, outbound logistics, marketing and sales, service
   c) Inbound logistics, operations, infrastructure, HR management, service
   d) Inbound logistics, procurement, outbound logistics, marketing and sales, service

45. Value chain analysis involves which of the following :
   a) Partners in production
   b) Distributors
   c) Inventors
   d) Both (a) and (b)

46. "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

47. Which of the following is true about design thinking process?
a) Non-linear process
b) Iterative
c) Exploratory
d) All of these

48. Narrating design with time as sequence of events, which are ordered is,
a) Mind mapping
b) Conceptualizing
c) Story telling
d) Ideating

49. Presenting to a client/customer a functional version of a website to complete shopping activity is an example of,
a) MVP
b) Prototype
c) Final product
d) Study Model

50. 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

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