USN ☐☐☐☐☐☐☐☐☐☐

Question Paper Version : A

First/Second Semester B.E./B.Tech. Degree Supplementary Examination, June/July 2024
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.

---

1. One of the following steps is the correct sequence of phase of the design thinking process.
   a) Ideate, Prototype, Define, Empathize and test
   b) Empathize, Define, Ideate, Prototype and test
   c) Test, Prototype, Define, Ideate and Empathize
   d) None of these

2. The following is the key element of the design thinking process,
   a) Only human centered, creative and playful.
   b) Only Iterative and collaborative
   c) Only Prototype driven
   d) All of these

3. Design thinking methodology involves one of the following distinct stages,
   a) Discover and Define   b) Define and Develop
   c) Develop and Deliver   d) All of these

4. Horward Business School Dean Mr. Shrikanth Datar leverage _____ stage frame work for design thinking.
   a) One stage   b) Two stage   c) Four stage   d) Three stage

5. The elements of design thinking are shape, colour, space, form line, value and texture.
   a) True   b) False

-A1-

6. To launch a successful product, the team must follow _____ D
   a) 4   b) 10   c) 5   d) 8

7. How many mind sets are required for design thinking?
   a) 4   b) 6   c) 2   d) 8

8. _____ is the founder of design thinking.
   a) Sir, Isaac Newton   b) Mr.Herbert A Siman
   c) Varignon   d) Lami.

9. The following are the 3 lenses of design thinking,
   a) Resolution, Composition and Equilibrium
   b) Force, Moment and Couple
   c) Desirability, Viability and Feasibility
   d) Desirability, acceptability and Rejection

10. All the visual designs are composed of _____ elements and these elements are combined and arranged to create a desired visual appearance.
    a) 6   b) 3   c) 8   d) 4

11. The main principles of graphic design is one of the followings :
    a) Balance, Contrast and Emphasize
    b) Repetition and pattern and proportion
    c) Movement white space, unity and variety
    d) All of these

12. One of the followings is the basic design rules :
    a) Contrast only   b) Repetition and alignment only
    c) Alignment and Proximity   d) All of these

13. One of the followings is the benefit of design thinking :
    a) Ability to develop product innovation.   b) Add value to customer's lives
    c) Drives revenues to the firm   d) All of these

14. One of the followings is the 3PS of design thinking,
    a) Production, Transportation and Marketing
    b) Immersion, Ideation and Prototyping
    c) All of these
    d) only (a)

15. The SWOT analysis in design thinking is one of the followings,
    a) Silence, Wealth, Origin and Treat
    b) Strength, Weakness, Opportunities and Threats
    c) All of these
    d) None of these

16. The types of collaboration is one of the followings :
    a) Alliances   b) Innovation   c) Ecosystem   d) All of these

17. The following any one is the essential elements of collaboration,
    a) Co-operation and assertivenss
    b) Autonomy, Responsibility and Accountibility
    c) Communication, Co-ordination, Natural trust and Respect
    d) All of these

18. The one of the followings is the key of collaboration,
    a) Dependable of people   b) Sharing vision
    c) Voluntary   d) All of these

19. One of the below is not a type of collaboration working,
    a) Mass collaboration   b) Team collaboration
    c) Community collaboration   d) Network and Cloud collaboration

20. One of the followings is the principle of collaboration,
    a) Trust and Empathy   b) Positivity and Clarity
    c) Accountability   d) All of these

21. One of the following is the best principle of collaboration,
    a) Only Relationship management
    b) Only alignment on vision and values
    c) Both collaborative leadership, Governance and Processes
    d) All of these

22. One of the followings is the 4 steps of collaboration,
    a) Forming, Norming, Stroming and Performing
    b) Fighting, Negligence, Strengthening and Personalizing
    c) All of the these
    d) None of these

23. One of the followings will not be included to build collaboration.
    a) Pinpoint and Promote a purpose of collaboration
    b) Lead by example and celebrate diverse personalities
    c) To break the collaboration whenever required
    d) Offer rewards or incentives for collaboration

24. One of the following is not the best example of collaboration
    a) Brain storming
    b) Group discussions
    c) Prolonged time consumption
    d) Reaching a consensus about processes or analyzing problems and finding a solution

25. The characteristics of collaboration are,
    a) Strong leadership, clearly defined roles for subgroups
    b) Effective and frequent communication
    c) Periodic and temporary suppression of the ego
    d) All of these

26. One of the following words will not describe collaboration :
    a) Partnership and association   b) Unilateral, Sole
    c) Co-operation, affiliation, connection d) Relationship, Interaction and Alliances

27. The following is the way to develop collaboration,
    a) Communicate clearly and participate in team building activities
    b) Choose the right digital tool for the right task
    c) Go beyond your comfort zone and become a mentor
    d) All of these

28. One of the followings is the skill to improve collaboration,
    a) Communication, Respect diversity
    b) Open mindedness, knowledge sharing and debate
    c) Being organized and delegating tasks
    d) All of these

29. One of the followings is the advantages of collaboration,
    a) It brings people close together
    b) It opens up new channels for communication
    c) It boosts across a person's organization
    d) All of these

30. BPM in design thinking means,
    a) Best Practices in Modeling   b) Business Process Modeling
    c) All of the these   d) None of these

31. The phases of business process modeling are,
    a) Information gathering, Work flow modeling
    b) Implementation, Verification and Execution
    c) All of these
    d) None of these

32. The most important elements of design thinking are,
    a) Empathy, Expansive thinking and Experimentation
    b) Execution of work not in time and exemption from work
    c) All of these
    d) None of these

33. The types of product prototypes are,
    a) Feasibility prototypes   b) Low fidelity user prototype
    c) High fidelity user prototypes and live data prototype   d) All of these

34. The values of design thinking are,
    a) Core values of flexibility, collaboration   b) Empathy, Curiosity and positivity
    c) All of these   d) None of these

35. The various types of case studies are,
    a) Descriptive case study   b) Explainatory case study
    c) Collective case study   d) All of these

36. The phases of simulation process are,
    a) Pre modeling, model building
    b) Model runs, Experimentation and final thoughts
    c) All of these
    d) None of these

37. One of the followings is the type of virtual environment.
   a) Non-immersive
   b) Semi-immersive
   c) Fully-immersive
   d) All of these

38. The dimensions of collaboration in agile are,
   a) Collaborative work awareness
   b) Articulation and appropriation
   c) All of these
   d) None of these

39. One of the followings is the method of prototyping,
   a) Concept sketch, prototype, Bench model prototype
   b) Fully functional rapid prototype, virtual model prototype
   c) Pre-production alpha prototype, manufacture production prototype
   d) All of these

40. The D's of design thinking are,
   a) Discovery, Design
   b) Development, Delivery
   c) All of these
   d) None of these

41. The following one is the innovative strategies,
   a) Pro-active and Active
   b) Reactive and Passive
   c) All of these
   d) None of these

42. The strategies used in strategic thinking is,
   a) Articulate the goals clearly and analyze the possibilities and risks objectively
   b) Create an implementation plan, adopt and adjust along the way
   c) All of these
   d) None of these

43. The storey telling techniques is,
   a) The conflict
   b) The character
   c) The climax
   d) All of these

44. The elements of strategic management are,
   a) Arenas, Differentiators, Vehicles
   b) Stagine and Economic logic
   c) All of these
   d) None of these

45. The following are the design strategies,
   a) Collaboration
   b) User Centered design, system approach
   c) Iterative design
   d) All of these

46. The key components in strategic thinking are,
   a) Tools for analysis
   b) Vision and values
   c) Strategic purposes
   d) All of these

47. The critical aspects of sense making are,
   a) Phenomena
   b) Science and engineering practices
   c) Students ideas and science ideas
   d) All of these

48. The types of innovation are,
   a) Radiant
   b) Incremental
   c) Descriptive
   d) All of these

49. The 3C's of design are,
    a) Consistency, Clarity and Content
    b) Complete, Complete and Close
    c) All of these
    d) None of these

50. One of the followings is the teaching principles
    a) Integrate new knowledge into the individuals life
    b) Test it out in the real world
    c) All of these
    d) Only (a)

* * * * *