**HUMAN-COMPUTER INTERACTION (INFS 336)**

**QUESTION BANK**

CHAPTER- 1: USABILITY OF INTERACTIVE SYSTEMS:

1. **Short questions: (3 marks):**
2. What is Human-computer Interaction?
3. List down the three usability goals.
4. Write about life critical systems with examples?
5. Name any three interfaces that are used for industrial & commercial purposes.
6. List few home and entertainment applications.
7. What are exploratory applications?
8. Name any three creative applications.
9. What are collaborative interfaces? Give example.
10. Write short notes on Sociotechnical systems.
11. List any three cognitive processes.
12. What are the three goals of HCI ?
13. **Long answer questions: (4 or 5 marks):**
14. List down the three usability goals. What are the measures of these usability goals?
15. Describe the Jung’s classifications of personality types.
16. What are the user-interface design concerns for internationalization?

CHAPTER- 2 : GUIDELINES, PRINCIPLES AND THEORIES

1. **Short questions: (3 marks):**
2. What are guidelines?
3. Define principles.
4. List the five types of interaction styles.
5. What are theories?
6. What is consistency? Give example.
7. **Long answer questions: (4 or 5 marks):**
8. Describe the guidelines for navigating the interfaces.
9. Write a brief description of accessibility guidelines.
10. What are the five high level goals for organizing data display?
11. Explain the three types of users based on their skill levels.
12. Explain the eight golden rules of interface design.
13. Describe the various types of theories.

CHAPTER- 3: DIRECT MANIPULATION

1. **Short questions: (3 marks):**
2. What are direct manipulation interfaces ? Give example.
3. Write any three applications of spatial data management.
4. Write short notes on Google MapsTM & Google EarthTM
5. Write any six video game interfaces.
6. Write short notes on educational games.
7. Write the three principles of direct manipulation.
8. What are the major areas where 3D representations are helpful?
9. What is teleoperation ? Give any two examples.
10. Write short notes on telemedicine.
11. What is viral colonoscopy?
12. What is robotic surgery?
13. How teleoperation is applied in military operations.
14. **Long answer questions: (4 or 5 marks):**
15. Write short notes on :
    1. Xerox PARC information visualizer
    2. ArcGISTM
16. Explain about CAD systems.
17. Write any five features of effective 3D interfaces.
18. What is teleoperation? Explain how teleoperation is used in military operations.
19. List the advantages and disadvantages of direct manipulation.

CHAPTER- 4: VIRTUAL ENVIRONMENTS & INTERACTION DEVICES:

1. **Short questions: (3 marks):**
2. Write short notes on CAVETM.
3. Write short notes on Artificial reality.
4. What is telepresence ?
5. What is augmented reality ? Give example.
6. What is DataGlove ?
7. Write short notes on Head-mounted displays. (Page 346)
8. List the technologies of Speech systems.
9. What are the obstacles to speech recognition?
10. What is Interactive Voice Response (IVR)?
11. List the characteristics of displays.
12. Write short notes on LED displays.
13. Write down the uses of multiple-desktop displays?
14. What are the four classes of mobile devices based on their usage?
15. **Long answer questions: (4 or 5 marks):**
16. Describe the significance of flight simulator using virtual reality.
17. Explain desktop virtual environments.
18. Discuss about the technologies that are used for successful virtual environments.
19. Explain Speech generation systems.
20. List the three types of large displays? Describe any one.

CHAPTER- 5: COLLABORATION & SOCIAL MEDIA PARTICIPATION

1. **Short questions: (3 marks):**
2. Distinguish between collaboration & social media participation.
3. What is teledemocracy ?
4. What is telepresence ?
5. Write short notes on ‘online communities’.
6. What is list server? Give example.
7. Who are lurkers?
8. What are blogs ? Give example?
9. What are wikis? How it is useful ?
10. Write short notes on ‘Wikipedia’.
11. What is Wikinomics ?
12. What is microblogging ?
13. What are webinars ?
14. What is instant messaging? Give example.
15. List few videoconferencing platforms?
16. **Long answer questions: (4 or 5 marks):**
17. Draw the time/space four-quadrant matrix model of Collaborative work.
18. List the varied situations for collaborative interfaces? Describe any one.
19. Describe how online communities are used for distance education.

CHAPTER- 6: INFORMATION VISUALIZATION

1. **Short questions: (3 marks):**
2. Define Information Visualization.
3. What is visual data mining?
4. Write the visual-information seeking-mantra.
5. **Long answer questions: (4 or 5 marks):**
6. Draw the time/space four-quadrant matrix model of Collaborative work.
7. List and briefly describe the seven ‘data types’ of information visualization.
8. Briefly describe seven basic tasks of analyzing information visualization.