

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2020 COURSE)  
B.Tech.Sem - V Computer Science & Engineering : WINTER- 2022  
SUBJECT : HUMAN MACHINE INTERACTION

Day : Monday

Time : 02:30 PM-05:30 PM

Date : 12/12/2022

W-24317-2022

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Assume suitable data **WHEREVER** necessary.
- 5) Draw neat diagram **WHEREVER** necessary.

Q.1 Explain the various components of HMI. Also discuss on the various advantages and disadvantages of HMI. (10)

OR

Q.1 What are the characteristics of a user interface? What are the general principles of user interface? (10)

Q.2 What is the importance of prototype in interface design? (10)

OR

Q.2 What is design rationale in HMI? What are the example of design rationale? (10)

Q.3 What do you mean by screen design and what are the principles of good screen design? (10)

OR

Q.3 Describe what is HMI software? Explain 3 main types of HMI systems. (10)

Q.4 Draw and explain mobile ecosystem and explain types of mobile applications. (10)

OR

Q.4 What is mobile app UI design? and also explain the layers of architecture in mobile app architecture. (10)

Q.5 What is the purpose of hierarchical task model? What are the two types of task analysis? (10)

OR

Q.5 Explain Computer mediated communication and Ubiquitous Computing in detail. (10)

Q.6 What are the various issues with speech recognition? (10)

OR

Q.6 What is the purpose of speech recognition and speech digitization in HMI? (10)