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PAPER CODE	U314-2105-A (E.S)
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**(AY:2024-25) December 2024 (ENDSEM) EXAM
TY (SEMESTER - I)**

COURSE NAME: HUMAN COMPUTER INTERACTION Branch: IT COURSE CODE: ITUA31205A

T.Y PATTERN 2020

Time: [1Hr 30 Min]

[Max. Marks: 40]

Instructions to candidates:

- 1) Figures to the right indicate full marks. Use of scientific calculator is allowed
- 2) Use suitable data wherever required
- 3) All questions are compulsory. Solve any two sub question each from Questions 1 and 2
- 4) Solve any one sub question (2 marks) from Questions 3, 4, 5 and 6 and sub question of 4 marks is compulsory from questions 3,4,5,and 6

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Analyze the role of user research in user-centered design. What methods can designers use to gather insights about user needs and preferences?	[4]	[1]	[2]
	b) Analyze the role of feedback in interaction design. How does it contribute to the user experience in HCI? Provide examples from digital interfaces.	[4]	[1]	[3]
	c) Identify an example of poor affordance in a product or interface you've used. Analyze the implications it has on user experience and suggest how it could be improved.	[4]	[1]	[3]
Q2	a) Describe the principles of universal design. How can these principles be applied to create products that are accessible to a diverse user base?	[4]	[2]	[2]
	b) Analyze the advantages and limitations of heuristic evaluation as an HCI evaluation technique.	[4]	[2]	[2]
	c) Develop a persona for an elderly user of a banking application. Describe specific design considerations that would address this persona's needs.	[4]	[2]	[3]
Q3	a) Discuss the importance of Norman's model in understanding the interaction between users and technology. OR	[2]	[3]	[2]
	b) Analyze one human factor that impacts interaction design for wearable devices.	[2]	[3]	[2]

	c) Create user scenario for a customer service chatbot. What are the critical tasks for each scenario, and how do they impact the chatbot's interaction design?	[4]	[3]	[3]
Q4	a) Explain the importance of balancing function and fashion in Human-Computer Interaction (HCI). Discuss how Usability vs. Aesthetics influences this balance with an example. OR	[2]	[4]	[3]
	b) Elaborate on the steps required to conduct card sort for a new website with an example.	[2]	[4]	[3]
	c) Create a low fidelity concept sketches for critical tasks of a Smart Mental Health Assistant mobile application.	[4]	[4]	[3]
Q.5	a) Differentiate between Formative and Summative UI evaluation. OR	[2]	[5]	[2]
	b) Evaluation occurs in laboratory, field, and/or in collaboration with users. Justify.	[2]	[5]	[2]
	c) List Shneiderman's Eight Golden Rules of Interface Design and evaluate working of any bank ATM.	[4]	[5]	[3]
Q.6	a) Discuss the three categories of cognitive model with its benefits and limitations in HCI. OR	[2]	[6]	[2]
	b) Construct a Hierarchical Task Analysis tree for a task of Ordering Food Online.	[2]	[6]	[3]
	c) Develop a KLM model and predict time for the completion of the task "Change font style for the word "KLM" to bold, Arial" using mouse only.	[4]	[6]	[3]

*BT levels: 1-Remember, 2-Understand, 3-Apply, 4-Analyse, 5-evaluate, 6-Create