Total No. of Printed Pages: 2

PRN No.	

PAPER CODE	V-313-2105-A-BSE

DECEMBER 2023 (ENDSEM) EXAM

TY (INFORMATION TECHNOLOGY) (SEMESTER – I)

COURSE NAME: HUMAN COMPUTER INTERACTION

COURSE CODE: ITUA31205A

(PATTERN 2020)

Time: [1Hr. 30 Min] **[Max. Marks: 40]**

Instructions to candidates:

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

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Lack of empathy in designer can result in product failure. Discuss through an example.	[2]	1	2
Q2	a) What are different types of reasoning in human being?	[2]	2	2
Q3.	a) Compare and contrast different interaction styles, such as direct manipulation, menu selection, and command languages. Provide scenarios where each style is most suitable.	[6]	3	4
	b) Discuss the challenges and considerations when designing interfaces for voice interactions. How can designers ensure seamless communication with voice-activated systems?	[6]	3	4
Q.4	a) What are main components/elements of information architecture ? Create information architecture for an e-commerce website.	[5]	4	3
	b) Discuss the concept of "balancing function and fashion" in design. Provide examples of how this balance can be achieved in digital interfaces.	[5]	4	3

	c) Compare and contrast low-fidelity concept sketches with high-fidelity wireframes. Create low-fidelity concept sketch for the login process of an online shopping app	[5]	4	3
Q.5	a) Enumerate the golden rules and heuristics for interface design. Analyse use of any 2 of the above rules with respect to a known mobile app UI. (Can draw concept sketches)	[5]	5	4
	b) Compare and contrast expert analysis and peer reviews as evaluation techniques. In what scenarios would each technique be more effective?	[5]	5	4
	c) Compare cognitive walkthrough & review based evaluation techniques of evaluating user interfaces.	[5]	5	4
Q.6)	a) Create a task hierarchy model for the task "washing your car".	[5]	6	3
	b) Create a KLM model and estimate time that a user will take to search for an email received from abc@gmail.com. Assume that you are already signed-in. Use the below mentioned standard timings **K** (Keystroke): 0.10 seconds per keystroke. **P** (Pointing): 1.10 seconds per mouse click or mouse movement. **H** (Homing): 0.40 seconds to move a hand from keyboard to mouse. **M** (Mental): 1.20 seconds for simple cognitive operations like recognizing a menu item.	[5]	6	3
	c) Describe the concept of "cognitive load" in UI design. How can designers reduce cognitive load to enhance user experience?	[5]	6	3