

**AUGUST 2021: END SEMESTER ASSESSMENT (ESA) B TECH 6th SEMESTER****UE18CS348 – HUMAN COMPUTER INTERACTION**

Time: 3 Hrs		Answer All Questions	Max Marks: 100
1	a)	What is reasoning? Give an example for deductive and Abductive reasoning.	5
	b)	What input and output devices would you use for the following systems? For each, compare and contrast alternatives, and if appropriate indicate why the conventional keyboard, mouse and CRT screen may be less suitable. (a) portable word processor (b) tourist information system	5
	c)	Mention 7 stages in Norman's Model of interaction.	5
	d)	Lights that turn on when we enter a room, suggestions made for additional purchases at online bookstores, automatic doors and washbasins are all common in today's scenario, Mention the type of computing responsible for these types of applications.	5
2	a)	A University has installed a face mask making robot to supply class room service face masks at any hour of the day. The university also has an automated delivery system that will take the completed face mask to a specified class room. You have been asked to program a software agent interface that students can phone to order face masks. Write a short scenario describing how a student would order a face mask using your interface.	5
	b)	Mention different types of design rationale, with relevant examples	5
	c)	Mention Schneiderman's 8 Golden Rules	4
	d)	You have implemented a project in the Subject-Human Computer Interaction, apart from problem statement, prototyping etc, Heuristic evaluation was done by you. Mention all 9 points which you have considered while carrying out Heuristic evaluation.	6
3	a)	Mention different approaches to Task analysis	5
	b)	PESU wants to have an application for the student registration process when they enter their 3 <sup>rd</sup> semester, what could be the organizational issues which need to be considered before proceeding.	5
	c)	A company located in Bangalore wants to develop a new application for employee insurance management system, how does the company start capturing requirements? What are the different ways of capturing requirements?	5
	d)	What is Socio Technical modeling? What are its different approaches?	5
4	a)	Find a friend and ask them to show how to share photos from a phone via email. Let the user explain the steps they take. Make notes while you observe the user. Do not seek to correct the user if the sequence of actions has inefficiencies. If the user does not know how to perform this task, continue until you understand what the user is trying to do, and then show how the task can be performed.	5
	b)	Mention the seven stages in Soft Systems Methodology	5
	c)	What is the full form of CATWOE? Write one line on each term.	5
	d)	Write a Concurrent Task Tree for the University Registration system	5

5	a)	Time/space matrix as a tool for classifying and analysing groupware has been useful, give classification and examples for the same.	5
	b)	Consider a scenario. I want to write a text book on Human Computer Interaction to be recommended by the PES university for students use. Dr Indira who works at IISC wants to co-author the book, which groupware application (collaboration aware) can we think of using, so that we can collaborate in an effective way.	5
	c)	You are in the Mackintosh Interpretation Centre in an arts center in Glasgow, Scotland. You notice a man wearing black wandering around looking at the exhibits and then occasionally at a small PDA he is holding. As you get closer he appears to be talking to himself, but then you realize he is simply talking into a head-mounted microphone. 'Some people can never stop using their mobile phone', you think. As you are looking at one exhibit, he comes across and suddenly cranes forward to look more closely, getting right in front of you. 'How rude', you think. Which technology is this? Give salient features.	5
	d)	What are shared Diaries? mention its salient features	5