# PSG COLLEGE OF ARTS & SCIENCE
## (AUTONOMOUS)
## MSc DEGREE EXAMINATION DECEMBER 2023
### (First Semester)

### Branch - COMPUTER SCIENCE

## HUMAN COMPUTER INTERACTION

Time: Three Hours                                               Maximum: 75 Marks

## SECTION-A (10 Marks)
### Answer ALL questions
ALL questions carry EQUAL marks          (10 × 1 = 10)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 1 | _____ is the study of how people interact with computers and other digital devices.<br>a. Psychology and design<br>b. Human-computer interaction (HCI)<br>c. Engineering and design<br>d. Natural language processing | K1 | CO1 |
| | 2 | _____ is the goal of Human-computer interaction (HCI).<br>a. To create technology that is intuitive, efficient, and effective for users<br>b. To create technology that is only used by experts<br>c. To create technology that is cheap<br>d. To create technology that is complex and hard to use | K2 | CO1 |
| 2 | 3 | Find which is used for user interface requirements.<br>a. Ethnographic observation      b. Theories and models<br>c. Algorithms and Prototypes    d. Controlled experiments | K1 | CO2 |
| | 4 | Which of the following are important in the design focus of HCI?<br>a. Thinking of the user          b. Testing the HCI<br>c. Involving the users          d. All of the above | K2 | CO2 |
| 3 | 5 | A field of technology that deals with a combination of real world and the data generated from computer.<br>a. ML                    b. AI<br>c. AR                    d.IoT | K1 | CO3 |
| | 6 | Which of the following is not a character of direct manipulation interfaces?<br>a. Visibility of the objects and actions of interest<br>b. Menu selection and form fill-in<br>c. Rapid, Reversible, increment actions<br>d. Replacement of typed commands by a pointing action on the object of interest | K2 | CO3 |
| 4 | 7 | Which of the following is new forms of interaction in HCI?<br>a. Gesture-based interfaces      b.Touchscreens<br>c. Voice recognition          d. All of the above | K1 | CO4 |
| | 8 | Which of the following is a good idea when designing menus for a small screen device like a phone?<br>a. Simplify. Focus on important functions, relegate others to other platforms<br>b. Present as many functions as possible<br>c. Always sequence menu items in alphabetical order<br>d. Don't worry about learnability | K2 | CO4 |

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 5 | 9 | Conventional wisdom says that_____tell the user when he has made some mistake.<br>a. Program crash     b. System struck<br>c. Error messages     d. Meta-data | K1 | CO5 |
| | 10 | A negative contrast on display screen result in to increasing the<br>a. Reusability     b. Quality<br>c. Legibility     d. Interactivity | K2 | CO5 |

## SECTION - B (35 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks     (5 × 7 = 35)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 11.a. | Explain the following principles of user interface design.<br>i. Transparency     ii. Simplicity<br>iii. Responsiveness     iv. Recovery | K2 | CO1 |
| | | (OR) | | |
| | 11.b. | Interpret the importance of user interface and benefits of good design. | | |
| 2 | 12.a. | Analyze the 4 pillars of successful user interface design. | K4 | CO2 |
| | | (OR) | | |
| | 12.b. | Examine about evaluation during Active use. | | |
| 3 | 13.a. | Explain about 3D Interfaces. | K3 | CO3 |
| | | (OR) | | |
| | 13.b. | Identify the importance of audio menus for small display units. | | |
| 4 | 14.a. | Write in brief the advantages and disadvantages of touch screen. | K5 | CO4 |
| | | (OR) | | |
| | 14.b. | Explain why speech recognition still does not match the fantasy of science fiction. | | |
| 5 | 15.a. | Explain the following with respect to windows with an example<br>Tool bar<br>Split box<br>Command area<br>Work area<br>Menu bar | K6 | CO5 |
| | | (OR) | | |
| | 15.b. | Discus the significance Nonanthromorphic design. | | |

## SECTION -C (30 Marks)
Answer **ANY THREE** questions
ALL questions carry **EQUAL** Marks     (3 × 10 = 30)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 16 | Explain about universal usability. | K5 | CO1 |
| 2 | 17 | Analyze the various user interface design evaluations. | K4 | CO2 |
| 3 | 18 | Discuss the significance of Virtual reality and Augmented reality applications in various domains. | K6 | CO3 |
| 4 | 19 | Assess the various interfaces in UI design. | K5 | CO4 |
| 5 | 20 | Explain the requirements for personal role management of Window design. | K5 | CO5 |

Z-Z-Z     END