

**END SEMESTER EXAMINATION**

December-2022

Course Code: CACSE53

Course Title: AUGMENTED REALITY

Time: 3 Hours

Max Marks: 40

Note: Attempt all the five questions.  
Assume suitable missing data, if any

No.	Question	CO	Marks
<b>Q 1</b>	Attempt any two parts of the following		8
<b>1a.</b>	Differentiate between Augmented reality (AR) and Virtual reality. Also discuss the relationship between AR and media.	1	4
<b>1b.</b>	How does augmented reality work? Also describe its evolution.	1	4
<b>1c.</b>	Describe the different ingredients of an augmented reality experience. Also write down the various applications of augmented reality.	1	4
<b>Q 2</b>	Attempt any two parts of the following		
<b>2a.</b>	What is the role of processor? Also describe the processor system architecture with the help of a block diagram.	2	4
<b>2b.</b>	Write a short note the following i. Visual Display ii. Audio Display	2	4
<b>2c.</b>	Describe the different characteristics of tracking technology.	2	4
<b>Q 3</b>	Attempt any two parts of the following		
<b>3a.</b>	Describe the major software components for augmented reality systems. Also write down the key feature of any software of your choice which used to create content for the Augmented Reality Application.	3	4
<b>3b.</b>	Explain the working of Multiple-Camera Infrared Tracking.	3	4
<b>3c.</b>	Write a short note on Natural Feature Tracking by detection	3	4
<b>Q 4</b>	Attempt any two parts of the following		8
<b>4a.</b>	Explain marker-based tracking and different types of markers.	4	4
<b>4b.</b>	Compare Visual tracking with feature based tracking	4	4
<b>4c.</b>	Write a short note on Localization based augmentation,	4	4
<b>Q 5</b>	Attempt any two parts of the following		8
<b>5a.</b>	Elaborate the role Scene Generator.	5	4
<b>5b.</b>	Discuss the functioning of Monitoring System.	5	4
<b>5c.</b>	List out the various AR Devices with their examples.	4,5	4

**B.Tech. (CSE/CSAI) 7th Semester**  
**END-SEMESTER EXAMINATION, NOV.-DEC., 2022**

Course Code: COCSE59/CACSE55

Course Title: Human Computer Interface

Time: 3 Hrs.

Max. Marks: 50

Note: Attempt ALL FIVE questions. Missing data/information, if any, may be suitably assumed and mentioned in the answer.

Q. No.	Question	Marks	CO
<b>Q 1</b>	<b>Attempt ANY 2 of the following parts.</b>		
1a	Explain various visual techniques required to augment visually pleasing composition of user screen.	5	CO1
1b	What is usability in User Interface Design? Why usability is so important? Explain the principles of User Interface Design.	5	CO1
1c	How do ergonomics affect the interaction between human and machines? Explain.	5	CO1
<b>Q 2</b>	<b>Attempt ANY 2 of the following parts.</b>		
2a	Explain low-fidelity prototyping and high-fidelity prototyping in detail.	5	CO2
2b	Explain the six stages of LUCID development methodology.	5	CO2
2c	Explain how can you implement Shneiderman's eight golden rules to efficient interface.	5	CO2
<b>Q 3</b>	<b>Attempt ANY 2 of the following parts.</b>		
3a	What are the factors governing the choice of an appropriate evaluation method for different interactive systems? Give brief details.	5	CO3
3b	What are the four main types of help that users may require? For each type, give an example of a situation in which it would be appropriate.	5	CO3
3c	Explain Nielsen's 10 Heuristics Usability Principles to Improve UI Design.	5	CO3
<b>Q 4</b>	<b>Attempt ANY 2 of the following parts.</b>		
4a	Discuss about the presentation styles of a window.	5	CO4
4b	Discuss the issues and challenges involved in designing menus for small display units.	5	CO4
4c	Write about the guidelines that must be considered in choosing colors for information.	5	CO4
<b>Q 5</b>	<b>Attempt ANY 2 of the following parts.</b>		
5a	Briefly describe the features of the different keyboard layouts.	5	CO5



5b	Explain the various display technologies applicable for small and large displays.	5	CO5
5c	Discuss the challenges and issues in adopting Speech Recognition Technology.	5	CO5

Total no. of pages: 1

Roll no. \_\_\_\_\_

B.Tech. (CSE) 7th Semester  
END-SEMESTER EXAMINATION, NOVEMBER-DECEMBER, 2023

247

Course Code: COC5E59

Course Title: Human Computer Interface

Time: 3 Hrs.

Max. Marks: 50

Q. No.	Question	Marks	CO
1	Attempt ANY TWO parts.		
a	Explain the simple stages of action model of system response time and user think time.	5	CO1
b	Analyze briefly four different interaction styles used to accommodate the dialog between user and computer.	5	CO1
c	Explain the role of user documentation in HCI. What are the major parameters on which documentation should be done?	5	CO1
2	Attempt ANY TWO parts.		
a	Explain various visual techniques required to augment visual pleasing composition of user screen.	5	CO2
b	Do you think that prototyping will solve all problems associated with user interfaces design? Analyze it.	5	CO2
c	Comment and identify the use of layout and other elements in the control panels.	5	CO2
3	Attempt ANY TWO parts.		
a	What are the roles of icons, graphics and color in providing feedback?	5	CO3
b	What type of HCI paradigm could be used to monitor eruptions of active and hazardous volcanoes? Analyze.	5	CO3
c	Conclude the factors in the physical environment that directly affect the quality of the interaction and the user's performance.	5	CO3
4	Attempt ANY TWO parts.		
a	Draw and give the typical flow of information on mobile devices.	5	CO4
b	Give an example of a scenario for the personal movie player.	5	CO4
c	List out the various tasks for determining the user interface for Library Management System (LMS). What data collection technique would be most suitable to identify the user requirements in LMS- Justify?	5	CO4
5	Attempt ANY TWO parts.		
a	Explain how can you implement Shneiderman's eight golden rules to design an efficient interface.	5	CO5
b	Give a brief note about different widget supports and interface features supported in user-interface building tools.	5	CO5
c	Examine the principles affecting learnability in detail. Give the summary of principles affecting flexibility.	5	CO5

**Degree: B. Tech. Semester: VII - Course work**  
**END-SEMESTER EXAMINATION, Nov-Dec 2023**  
 Course Title: Service Oriented Architecture  
 Course Code: COCSE50

Max. Marks: 50

Time: 03 Hours

**Note: - Attempt all the five questions. Missing data/ information (if any), maybe suitably assumed & mentioned in the answer.**

Q. No.	Question	Marks	CO
Q 1	Attempt any 2 parts of the following		
1a	List out the web services provided by WSDL.	5	CO3
1b	Financial tracking and budgeting application has been designed with the help of micro-services. Describe the process of Containerization and Orchestration.	5	CO4
1c	"Feedback at different levels" is one of the advantage of SOA. Discuss how it has been achieved.	5	CO1
Q 2	Attempt any 2 parts of the following		
2a	An application named "Automated Hiring System" has to be developed. One of the service is "Score Generator" that generates the final score of every test given by applicants and stores it in the backend. Explain the working of that service.	5	CO3
2b	Demonstrate the working example of WSDL.	5	CO3
2c	Distinguish the services provided by traditional architecture and SOA.	5	CO1
Q 3	Attempt any 2 parts of the following		
3a	List out the technical challenges faced by SOA.	5	CO1
3b	Describe the process how business services build agility into business models.	5	CO2
3c	Identify the process of finding the path of a message in SOAP.	5	CO2
Q 4	Attempt any 2 parts of the following		
4a	List out the points how creation of a business service layer promotes reuse in both business and application services.	5	CO5
4b	"Movie Catalogue Service" is a central catalogue service that contains information about available movies, including Showtime's, synopses, and cast details for "Movie Ticket Booking" platform. Explain that service.	5	CO4
4c	Demonstrate the process of Fire-and-Forget MEP.		
Q 5	Attempt any 2 parts of the following	5	CO5
5a	Describe the process of establishing the business service layer by Entity-centric services.	5	CO2
5b	Discuss the publish-and-subscribe messaging model.		
5c	"Notification Service" is a service that sends confirmation and reminder notifications for "Hotel Management and Booking" website. Explain that service.	5	CO3
		5	CO5