11/06/24-FN



Regulations: 2022

Reg. No.:			



BANNARI AMMAN INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Affiliated to Anna University, Chennai) SATHYAMANGALAM – 638 401

PERIODICAL TEST II - JUNE 2024
IV Semester

22CS008/22IT008/22CT008/22AI002 & UI AND UX DESIGN (answer key)

Degree & Branch: B.E. / B.Tech. &CS,IT,CT,Al

Time: 1:30 Hrs.

Maximum: 50 Marks

Mention if any code-books, data books, data-sheets, reference tables, graphs are required to answer this question paper. Delete this box if it is not required.

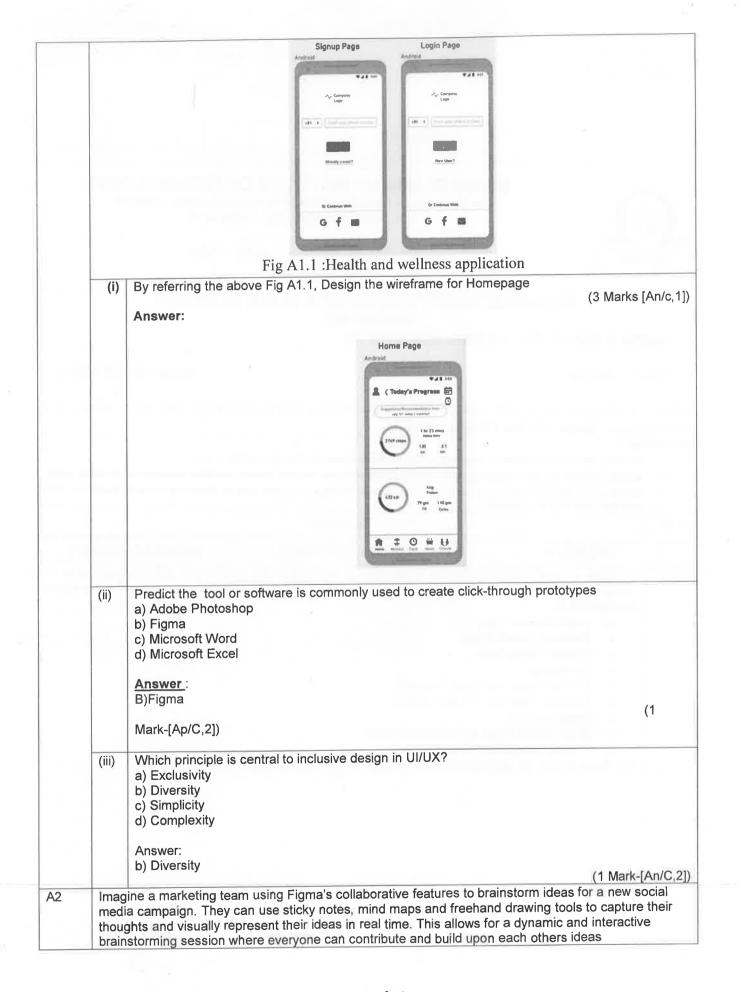
Instructions:

1. Students should not mark/write anything on the Question Paperother than the register number.

2. Section A of the Question Paper contains questions for 15 Marks. Section B and C contains questions for 30 Marks each.

3. Students can attempt answering any two out of three subsections in each section. Maximum mark is limited to 10 in section A and 20 in sections B&C.

Students can attempt answering any two out of three subsections in each section. Maximum mark is limited to 10 in section A and 20 in sectionsB&C. Q.No. Questions MAXIMUM: 10 MARKS **COURSE OUTCOME 3** SECTION A Consider a healthcare organization is planning to develop a new Health and wellness application to A1 streamline patient record management and improve healthcare delivery. The wireframe for the above applications is Login/Signup Page Personal Details Page Fitness Goals Page Homepage Profiles Page and Goals Progress Workout Page with Personalization Tracking page Meals Intake Page with personalization Friends Leaderboard Page The figure shows the sample wireframe design for login/signup page for the application



	(i)	When a person from a marketing team had gone to abroad for a client meeting, Predict whether it is possible to connect with him to discuss the social media campaign project. If
		yes, justify. (3 Marks – [Ap/C,2])
		Answer:
		Yes, it is possible to connect with the person in the marketing team. Where figma allows remote access, so anyone from access and connect from everywhere. Where it provide several drawing tools and notes to conduct meeting easily.
	(ii)	Which of the following statements best describes the concept of "equitable use" in inclusive
	(10)	design?
		a) Designing for users with specific disabilities
		b) Designing for the average user
		c) Designing products that can be accessed and used by people with diverse abilities
		d) Designing products that are affordable for everyone
		Answer:
		c) Designing products that can be accessed and used by people with diverse abilities (1 Mark-[An/C,2])
	(iii)	Which of the following tools is commonly used for sketching in UI/UX design? a) Adobe Photoshop
		b) Sketch
		c) Microsoft Excel
		d) AutoCAD
		Answer:
		b) Sketch (1 Mark-[An/C,2])
A3	to na	Screen reader compatibility Search by genre Multiple formats
		o book download
	(i)	Find the process carried out by sarah to borrow books and download the books using the library app.
		ANSWER:
,		To borrow the books:
		sarah can use voice activation function, search activates her phone and opens the library app using a voice command, the book listed includes audio description, so she can easily viewed and click the borrowing option to get the respective audio book. (2 marks) To download the book:
		Once borrowed ,sarahselects the download option for the audio book, which provides audio
		feedback of the download progress. (1 mark)
		(3 Marks – [An/p,2])
	(ii)	Which stage of the design process typically involves creating wireframes?
		a) Ideation
		b) Testing c) Prototyping
		d) Evaluation
		Answer:
	-	a) Ideation
		(1 Mark-[An/C,2])
	(iii)	Which of the following is NOT a common type of wireframe?
		a) Low-fidelity wireframe b) Medium-fidelity wireframe
		D) Weduch-Indenty, Wilehame

		c) High-fidelity wireframe d) Dynamic wireframe Answer: d) Dynamic wireframe (1 Mark-[An/C,2
	S	SECTION B COURSE OUTCOME 4 MAXIMUM : 20 MARKS
B1	meni	sider designing a new mobile app for a food delivery service. The app allows users to brows us from various restaurants, order food, and track their deliveries. e are some specific icon examples for a food delivery app:
	Fig E	31.1: Icons Predict the three key considerations for iconography of a food delivery app.
		(3 Marks – [An/C,2 Answer: Clarity and recognition Functionality and readability Aesthetics and brand identities
	(ii)	Predict the factors to prioritize when choosing icons for this app's user interface (UI)? (4 Marks – [An/C,2
		Answer: By prioritizing clear and universally recognizable icons, you ensure a user-friendly and intuitive experience for everyone using the food delivery app
	(iii)	What is the purpose of a style guide in a design system? a) To provide guidelines for consistent design elements b) To showcase different design options c) To define project timelines d) To manage project budgets Answer:
		a) To provide guidelines for consistent design elements (1 Mark - [R/F, 1
	(iv)	What does a color palette contribute to a design system a)It sets the project budget b) It provides guidelines for consistent color usage c) It defines project timelines d) It showcases different design options Answer:
		b) It provides guidelines for consistent color usage

(1 Mark - [R/F, 1])

(v) Which of the following is NOT typically included in a design system?

a) Typography guidelines
b) Photography or imagery suggestions
c) Marketing strategy
d) UI elements

Answer:
c) Marketing strategy

(1 Mark - [R/F, 1])

User interface animation adds visual effects to UI elements and components to make them interactive. This interactivity helps users through a website or digital product while creating an immersive and enjoyable user experience. There are five types of UI animations namely Loading and Progress, State changes, Navigation, Micro interactions and Branding.



Fig B2.1 User interface animation

(i) Check whether the following statements are valid or not with respect to UI animation (4 Marks – [An/C,2])

Statement 1:

B2

Animation Entity: Loading

Properties : An animation showing the user that the system is working. For example

percentage indicator showing a user that a product is processing

information

Statement 2:

Animation Entity: State change

Properties : Designers often use animations to communicate a digital product or

elements. For example a button might remain dark and un clickable until a

user completes the required form fields

Statement 3:

Animation Entity: Navigation

Properties : UI animations help users to find what they want. Designers will use animation to show which page or tab they are viewing or create page

transitions that indicate which direction they are moving

Statement 4:

Animation Entity: Branding

Properties : Animations are not a fantastic way to promote awareness and interaction

with users. Designers will often use fun logo animations to give the light

		hearted, welcoming appeal
		Answer Statement 1: Valid Statement 2: Valid Statement 3: Valid Statement 4: In Valid
	(ii)	UI animation plays a crucial role in design psychology and reducing cognitive load. Designers minimize the mental effort required to use a digital product by providing context, familiarity and consistency through animations. Identify the UI elements from the interface given in the fig B2.1
		(3 Marks – [An/C,2])
		Answer
		1. Header 2. News feed 3. Animated icons 4. Navigation 5. Search box
		[Anything related to above interface]
	(iii)	What is the purpose of defining a grid in a design system? a) To manage project budgets b) To showcase different design options c) To provide guidelines for consistent layout d) To define project timelines Answer:
		c) To provide guidelines for consistent layout (1 Mark - [R/F, 1]
	(iv)	What role does iconography play in a design system a) Managing project budgets b) Providing guidelines for consistent icon usage c) Defining project timelines d) Showcasing different design options Answer:
		b) Providing guidelines for consistent icon usage (1 Mark - [R/F, 1
	(v)	Which aspect of a design system guides the selection and usage of fonts? a) Iconography b) Color palette c) Typography d) UI elements Answer:
		c) Typography (1 Mark - [R/F, 1
В3	prov	sider the scenario, in a travel planning application, Microinteractions plays a crucial role in iding users with visual representations of destinations, accommodations, activities, and princes. Overall, Microinteractions enhances the user experience in the travel planning application
£3	by p	Predict the incorrect statements with respect to Microinteractions in UI design. a) Micro interactions are small interactive moments in UI that provide visual feedback and guide users

- b) They enhance UX by making the product more intuitive, engaging, efficient, and enjoyable
- c) Examples of micro interactions are pre-loaders, chat bots, gamilfied animations, and celebratory gifs
- d) Micro interactions consist of 4 parts: trigger, rule, feedback, and loop/modes.
- e) Micro interactions decreases the complexity of tasks that causes friction in the customer journey.
- f) It helps users to navigate from one interface to another and finds what they want.
- g) It promotes brand awareness and interaction with users.

Answei

(ii)

- f) It helps users to navigate from one interface to another and finds what they want
- g) It promotes brand awareness and interaction with users

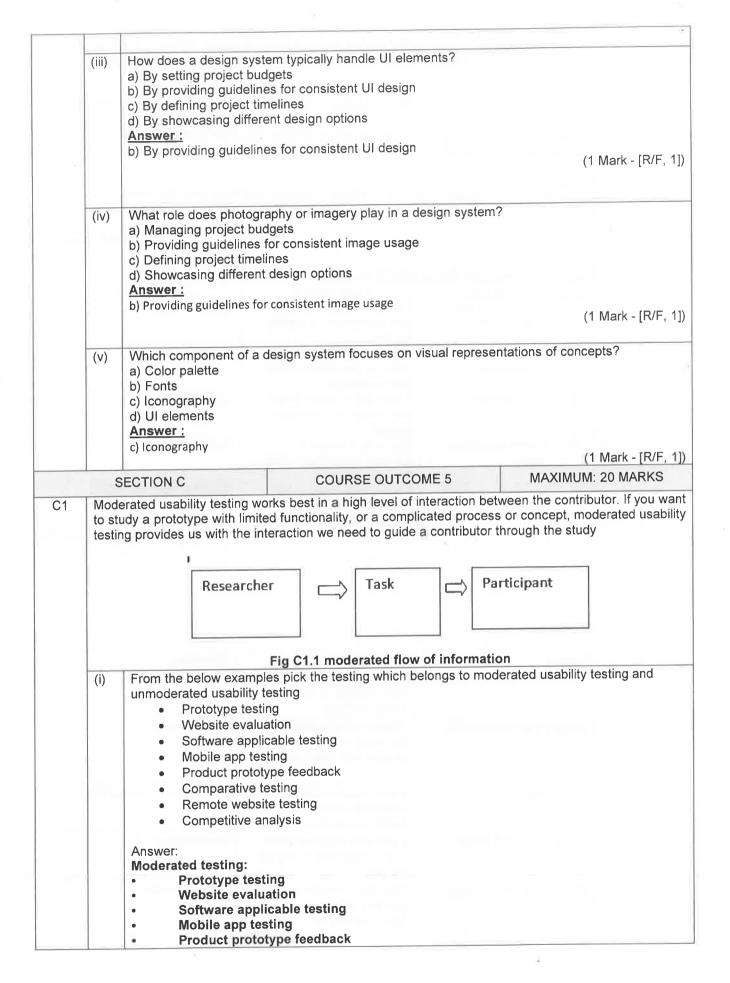
(2 Marks -[Ap/C,2])

Match t	he following UX factor	s with its properties	
S.No	Factors(A)	Properties (B)	Examples(C)
1,00	Real life images and videos	It provides a glassy effect and background is slightly blurred	Dribble images
2.	Shapes and screenshots	This style if image is primarily decorative rather than meaningful	Icon images
3,,	3D elements	It provides a glassy effect and background is slightly blurred	Scan images
4,	Glass-morphism image	This style if image is primarily decorative rather than meaningful	Medical Images
5.	Abstract or artistic image	It is an ideal medium for depicting persona and	Imaginative or unrealistic images

(5 Marks -[Ap/C,2])

Answer

Factors	Properties	Examples
Real life images and videos	People are communicating more through everyday human actions	Medical Images
Shapes and screenshots	Clear understanding of what the users will get from the product and how it works	Scan images
3D elements	It is an ideal medium for depicting persona and human behaviours	Imaginative or unrealistic images
Glass-morphism image	It provides a glassy effect and background is slightly blurred	Icon images
Abstract or artistic image	This style if image is primarily decorative rather than meaningful	Dribble images



		Unmoderated testing:
		 Comparative testing Remote website testing
		Competitive analysis
		(4 Marks-[U/C,2])
	(ii)	State whether the assertion matches with the reason or not
		Assertion: A . Usability testing refers to evaluating a product or service by testing in with representative users.
		Reason: The goal is to identify any usability problems, collect quantitative and qualitative data and determine the participants satisfaction with the product
		A. A is correct and R matches with the reason of A
		B. A is false and R does not match with the reason
		C. Both A and R are correct D. Both A and R are false
		Answer:
		A. A is correct and R matches with the reason of A
		(2 Marks-[U/C,2])
	(iii)	Predict the changes takes place when conducting remote usability testing compared to
		traditional, in-person testing methods.
		a) Greater control over the testing environment and conditions.b) More opportunities for direct observation of users' facial expressions and body
		language.
		c) Ability to recruit participants from diverse geographic locations.
		d) Faster turnaround time for collecting and analyzing user feedback.
		Answer: Ability to recruit participants from diverse geographic locations.
		(1 Mark - [R/F, 1])
	(iv)	To improve Ecommerce website, predict the instances may incorporated in unmoderated
		usability testing. a)Live observation – intask surveys – remote assistance – live chat
		b)Observation – survey – assists - feedback
	1	c)Remote observation – surveillance – assistance -feedback
		d)Live observation – tasks – chat – feedback
		Answer: Live observation – intask surveys – remote assistance – live chat
		(1 Mark - [R/F, 1])
	(v)	Consider an online shopping website, predict the steps followed to conduct a card sorting
		exercise a)planning – content preparation –method selection – instruction and introduction –
		sorting session b)planning- sorting session – method selection – instruction and introduction – content
		preparation c) planning – content preparation – method selection – sorting session – instruction and
		introduction d)planning- content preparation – method selection – sorting session – instruction and
		introduction
		Answer: planning – content preparation –method selection – instruction and introduction – sorting session (1 Mark - [R/F, 1])
C2	Cons	sider a usability study of an academic search engine here participants engage in think-aloud
	sess	ions while conducting searches. Their verbalized thoughts provide real-time insights into user viour and preferences, guiding iterative improvements to the search engine interface.
	(i)	From the below sentences identify the incorrect sentence
	,,	Think aloud sessions should be conducted with large group of users
		Think aloud participants should be compensated for their time

Think aloud is only useful for testing prototypes and finished products (incorrect) The facilitor should actively guide users through the think aloud process (incorrect) Think aloud results can be directly translated into design solutions(incorrect) Think aloud sessions should be conducted with large group of users(incorrect) Think aloud participants should be compensated for their time(correct) 7. Answer: Think aloud is only useful for testing prototypes and finished products (incorrect) The facilitor should actively guide users through the think aloud process (incorrect) Think aloud results can be directly translated into design solutions(incorrect) Think aloud sessions should be conducted with large group of users(incorrect) (4 marks [An/c, 1] Complete the table from the below examples: (ii) (Tennis racket, student life and activities, weather report) Example Card sorting Open card sorting Closed card sorting Hybrid card sorting Answer: Example Card sorting Tennis racket Open card sorting Student life and activities Closed card sorting Weather report Hybrid card sorting (3 marks [An/c, 1] Question (iii) Consider a user interacted with a website application where predict the primary benefit of session recording in user experience analysis a) Real-time interaction with users during website browsing. b) Identifying trends and patterns in user behavior. c) Conducting A/B testing on website layouts. d) Gathering demographic information about website visitors. Answer: Identifying trends and patterns in user behavior. (1 Mark - [R/F, 1]) (iv) Question When conducting an open card sorting exercise, participants are asked to: a) Sort pre-defined categories into groups based on their preferences. b) Group website content categories freely without any predefined structure. c) Rank website content categories in order of importance. d) Memorize the sequence of website content categories. Group website content categories freely without any predefined structure. (1 Mark - [R/F, 1]) (v) Question In an online shopping store closed card sorting, participants are provided with pre-defined categories and asked to a) Group website content categories freely without any predefined structure. b) Rank website content categories in order of importance. c) Sort pre-defined categories into groups based on their preferences. d) Memorize the sequence of website content categories. Sort pre-defined categories into groups based on their preferences. (1 Mark - [R/F, 1])

who	periencing a o make a pu	steady flow of traffic to its we rchase) has plateaued. The r	any that sells clothing online. Y bsite, but the conversion rate on marketing team believes that o	(the percentage of visitor
		ootentially increase conversions following.	ns.	
(i)	Watch the	e following.		
	S. No	Conversion Rate Optimization Strategies (A)	Benefits of Optimizing Checkout Process (B)	Metrics to Measure Success (C)
	1	A. Implementing a one- page checkout	A. Increased user satisfaction	A. Average order value (AOV)
	2	B. Adding guest checkout option	B. Higher conversion rates	B. Checkout abandonment rate
	3	C. Offering multiple payment options	C. Reduced cart abandonment	C. Conversion rate
	4	D. Simplifying form fields and reducing steps	D. Enhanced customer retention	D. Time spent on checkout pages
		and recurring every		(4 Marks –[Ap
	Answer: A - C - B B - A - A C - D - D D - B - C			
(ii)	e-comme	erce websites through online.	ned checkout process can imp (2 Marks -	-[Ap/C,2])
	• E r Custome	navigation rs are more likely to proceed ons.	eps required to complete a pur with their transactions, leading	g to an increase in
(iii)	Custome conversion Consider and quaral b) Consider and Figure 1 a) Fig	navigation irs are more likely to proceed ons. a mobile application, where ititative evaluation, predict the First impression, ease of use, Jsage time, price, guarantee, First impression, guarantee, Frice, visual design, clarity are irst impression, ease of use,	with their transactions, leading the user experience of the appear of th	g to an increase in can be made by qualita litative evaluation. I design, feedback action of usage I design, feedback
(iii)	Custome conversion Consider and quarter and quarter and provided the functional and the f	navigation irs are more likely to proceed ons. It a mobile application, where notitative evaluation, predict the irst impression, ease of use, Jsage time, price, guarantee, Irst impression, guarantee, Irst impression, guarantee, Irst impression, ease of use, Irst impression,	with their transactions, leading the user experience of the apple considerations made for qualified and consistency, visual design, feedback, length and consistency, feedback, length and consistency, feedback. clarity and consistency, visual local restaurant. The applications are to gather quick feedback consistency. clarity and consistency, visual local restaurant. The applications are to gather quick feedback consistency.	g to an increase in can be made by qualitative evaluation. I design, feedback action of usage I design, feedback s to allow customers to on the app's usability and eedback aption eedback
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