C–5164	Sub. Code
	82713

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

First Semester

UI Design and Development

COMMUNICATION AND MEDIA DESIGN

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What is user centric design?

2.   What is artificial language?

3.   Define patent.

4.   Define copywriter.

5.   List the elements of UX.

6.   What is customer digital touch points?

7.   What do you meant by semiotics?

8.   What is mind map?

9.   What is agile software development?

10. What is UX design process?

Part B $(5 \times 5 = 25)$

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the case study of skinner box.

Or

(b) Discuss on communicative interaction.

12. (a) Explain the types of intellectual property rights.

Or

(b) Elaborate on software rating board.

13. (a) Explain data driven design.

Or

(b) Discuss on research methodology.

14. (a) Write short notes on multimedia content.

Or

(b) Write short note on semiotics and media.

15. (a) How a business can use ubiquitous computing?

Or

(b) Describe the future trend of ubiquitous computing.

Part C $(3 \times 10 = 30)$

Answer **all** questions, choosing either (a) or (b).

16. (a) With suitable example, explain the types of communications.

Or

(b) Explain the history of computers and multimedia.

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17. (a) Describe the various phases of SDLC with suitable examples.

Or

(b) Discuss about freedom of speech with suitable example.

18. (a) Write short notes on

(i) CX

(ii) IXD

(iii) HCI

Or

(b) Elaborate on user interface project management with suitable example.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.

First Semester

UI Design and Development

PROGRAMMING AND SCRIPTING

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   Define algorithm.

2.   What is the basic structure of C Programming?

3.   What are the advantages of pointers?

4.   Write short note on : dynamic arrays.

5.   Define Encapsulation.

6.   Write short note on : Virtual Function

7.   What are the basic tags in HTML?

8.   List some of the web applications.

9.   What is the purpose of style sheets?

10.   What are the properties of Flex Box'?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Briefly explain about nested if statements.

Or

    (b) Write a program to illustrate to pass value to function.

12. (a) How will you define and access one dimensional array? Give example.

Or

    (b) Write a program to pass pointers to a function.

13. (a) What is polymorphism? Explain its types with example.

Or

    (b) Write short note on class templates.

14. (a) Design a web page to illustrate list tags.

Or

    (b) Design web page to display class time table using <Table> tag.

15. (a) Briefly explain about various selectors in cascading style sheets.

Or

    (b) Write short note on Transforms and Translations.

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Part C $(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain in detail about looping statements with suitable example.

    Or

    (b) What is recursion? Write a recursive program to find factorial of N.

17. (a) Explain in detail about basic concepts of object oriented programming.

    Or

    (b) Discuss in detail about external style sheets with suitable example.

18. (a) Write a HTML code to design a web page for your college details.

    Or

    (b) Write short note on : Responsive Design and Media Queries.

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C–5166		Sub. Code
		82732

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

Third Semester

UI Design and Development

VISUAL DESIGN

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What is raster graphics?

2.   What do you meant by header in a web page?

3.   Mention the importance of icon.

4.   Define layout.

5.   Define vector graphics.

6.   Mention any two softwares uses vector graphics.

7.   Name any two mobile device platforms.

8.   Write short notes on screen size.

9.   List the methods to exporting design.

10. What is mockup?

Answer **all** questions, choosing either (a) or (b).

11. (a)   Explain the principles of raster graphics.

Or

(b)   How typhography used in design?

12. (a)   Explain grid layout design.

Or

(b)   Write note on Design etiquette.

13. (a)   Explain the principles of GUI design.

Or

(b)   What are animated icons?

14. (a)   What are web standards, give example.

Or

(b)   Explain the colour system used for web designing.

15. (a)   Write note on website mockup design.

Or

(b)   Explain about Mascot design.

Part C   (3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a)   Differentiate between Raster and Vector graphics.

Or

(b)   Elaborate the principles of logo design.

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17.   (a)   Outline the components of a web page.

                        Or

      (b)   Compare android UI design with IOS UI design.

18.   (a)   Discuss about UI animation in raster and vector
            graphics.

                        Or

      (b)   With suitable example, explain the principles of
            responsive web design.

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C–5167		Sub. Code
		82733

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

Third Semester

UI Design and development

UI DEVELOPMENT – II

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What is responsive design?

2.   Define cascading style sheets level 3.

3.   What are different JS frame works?

4.   What is bootstrap?

5.   What are plugins in bootstrap?

6.   When should to use bootstrap?

7.   Why is Node JS used?

8.   Mention any two functions of Node JS.

9.   What are the scope of angular JS?

10. What is two-way data binding?

Part B   (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a)   Explain target device analysis.

Or

(b)   What are break points in web design?

12. (a)   Discuss on CSS framework.

Or

(b)   Discuss on JS framework.

13. (a)   Explain Jumbotron.

Or

(b)   Explain about Modals Plugins.

14. (a)   Write about HTTP Server.

Or

(b)   Explain Web Framework.

15. (a)   Discuss on Form binding.

Or

(b)   Write short note on form validation.

Part C   (3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a)   Explain various tools used for building dynamic web pages.

Or

(b)   Discuss on tables in bootstrap with suitable example.

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17. (a) Explain about your understanding of database handling for web.

Or

(b) Discuss on forms in bootstrap with suitable example.

18. (a) Explain in detail angular JS architecture.

Or

(b) Explain various methods used to build responsive Web Pages.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.

Third Semester

UI Design and Development

UX DESIGN – II

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What is the main objective of visual design?

2.   What is paper based prototyping?

3.   How do you sort cards in UX?

4.   How to create a user journey?

5.   What is wire frame in UX design?

6.   What is the best responsive design?

7.   Write about usability testing report.

8.   What is tunnel diagram?

9.   Write the features of mobile UX.

10.   What is mobile app prototype?

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain how repetation is used in visual design.

    Or

    (b) Discuss about communication errors.

12. (a) How to improve UX designs with task analysis?

    Or

    (b) Explain the functions of web board.

13. (a) Outline the main features of wire frame.

    Or

    (b) How to make wire frames for mobile apps?

14. (a) What makes good test report? Explain.

    Or

    (b) Explain the anatomy of a tunnel diagram.

15. (a) How to avoid bad mobile user experiences?

    Or

    (b) Explain the method to use task modelling to plan a mobile user experience.

Part C (3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain in detail about designing of products that delivers outstanding mobile experiences.

    Or

    (b) Summarize the steps involved in UX design process.

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17. (a) Explain the steps to create task models in power point.

Or

(b) Explain :

(i) Law fidelity wire frame

(ii) Hi-fidelity wire frame.

18. (a) Discuss in detail design principles of wire frames.

Or

(b) Explain the following according to mobile wire framing

(i) Representing motion

(ii) Representing gestures.

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C–5171	Sub. Code
	82751

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

Fifth Semester

UI Design and Development

EMERGING TECHNOLOGIES

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define intelligence.

2. List the field that form the basis for AI.

3. Define forward chaining.

4. What is pitch yaw?

5. What is Bird-eye?

6. Define inference.

7. What do you meant by AR?

8. Define SURF.

9. Classify the types of networks.

10. Mention the advantages of IoT.

Part B $(5 \times 5 = 25)$

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the concepts and problem solving method of AI.

Or

(b) Write notes on control strategies in AI.

12. (a) Explain about logical representation.

Or

(b) Discuss the types of inferences.

13. (a) Classify the hardware components of VR system.

Or

(b) Write notes on Bird-eye view hardware.

14. (a) Write the importance of AR technology.

Or

(b) Compare SIFT and SURF.

15. (a) Explain sensor network.

Or

(b) Explain IoT.

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Part C $(3 \times 10 = 30)$

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain the following local search strategies

    (i) Hill climbing

    (ii) Indexing.

    Or

    (b) Explain Hybrid tracking for outdoor AR application.

17. (a) Discuss various methods of knowledge representation with suitable example.

    Or

    (b) Explain in detail AR based on sensor.

18. (a) Explain IoT and mention the major area of application with examples.

    Or

    (b) Explain data handling and analytics with suitable examples.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

Fifth Semester

UI Design and Development

SOFTWARE QUALITY ASSURANCE

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define Quality.

2. What do you meant by quality models?

3. What is quality metrics?

4. What are software quality metrics?

5. Define Quality control.

6. Define Quality Assurance.

7. What is software testing?

8. What are the method of test generation?

9. Define clean room testing.

10. What do you meant by testing tools?

Answer **all** questions, either (a) or (b).

11. (a) Explain the fundamental of software quality.

Or

(b) Explain the concept of quality.

12. (a) Elaborate on selecting quality goals and measures.

Or

(b) Elaborate on quality characteristics tree.

13. (a) What are the steps in quality control? Explain.

Or

(b) What are the advantages of QA? Write about types of QA.

14. (a) What are the different level in software testing?

Or

(b) Elaborate the testing techniques.

15. (a) Write a importance of testing tools.

Or

(b) Explain benefits of ISO 9000 series.

Part C   (3 × 10 = 30)

Answer **all** questions, either (a) or (b).

16. (a) Explain in detail Quality improvement.

Or

(b) Discuss about Testing in detail.

17. (a) Explain software testing and test trees with suitable example of test flow diagrams.

Or

(b) Why ISO-9000 important?

18. (a) Explain historical perspective elements of QMS.

Or

(b) Define :

(i) Reliability

(ii) Maintainability

(iii) Verifiability

(iv) Testability

(v) Safety and supportability.

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C–5173		Sub. Code
		82755A

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.

Fifth Semester

UI Design and Development

INFORMATION ARCHITECTURE

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   What is information architecture?

2.   List out the types of IA.

3.   What do you meant by IA convention?

4.   List out the types of navigation.

5.   Define card sorting.

6.   What are the principle of user - centered design?

7.   List out the type of web page design.

8.   Define destination page.

9.   Write short notes on web sites.

10. What is web mining?

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain

    (i) user experience.

    (ii) user Behavior.

Or

(b) Elaborate on taxonomics and metadata.

12. (a) Explain the types of navigation.

Or

(b) Explain IA search system.

13. (a) Explain

    (i) user modeling and

    (ii) Size organization.

Or

(b) Discuss in detail tools of the trade.

14. (a) Explain the types of web page design.

Or

(b) What are controlled vocabulary strategies and explain.

15. (a) Elaborate design for web sites.

Or

(b) Explain (i) on page SEO (ii) Off page SEO.

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Part C   (3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain content Management System.

Or

(b) Discuss in detail navigation system.

17. (a) Write a notes on

   (i) Usability testing

   (ii) Card sorting

Or

(b) Elaborate on knowledge organization database.

18. (a) Write notes on

   (i) Web mining

   (ii) Web crawling

Or

(b) Write notes on
   (i) Google keywords
   (ii) Page Rant
   (iii) Information Hierarchy

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.

Fifth Semester

UI Design and development

HUMAN COMPUTER INTERACTION

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define devices in computer.

2. List out the types of networks.

3. What do you meant by design navigation?

4. What are the principles of design rules?

5. Define Multimedia.

6. What is mobile 2.0?

7. What are the elements of mobile design?

8. Define overlays.

9. Define web interfaces.

10. What do you meant by contextual tools?

Part B   (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a)   Explain Reasoning and problem solving in channels.

Or

(b)   Elaborate processing and networks.

12. (a)   Elaborate Iteration and prototyping.

Or

(b)   Discuss design rules.

13. (a)   Explain the issues of cognitive models.

Or

(b)   Explain Hypertext.

14. (a)   Explain Mobile application.

Or

(b)   Discuss about Mobile design.

15. (a)   Discuss about

(i)   Importance of Designing web interface.

(ii)   Tools.

Or

(b)   Describe process flow.

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Part C (3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a) Describe Interaction with suitable examples.

Or

(b) Elaborate Software life cycle.

17. (a) Describe on importance of Multimedia and WWW.

Or

(b) Elaborate Universe design.

18. (a) Discuss mobile Ecosystem.

Or

(b) Explain

(i) Mobile Architecture

(ii) Elements of Mobile Design

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C–5175		Sub. Code
		82755C

B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

Fifth Semester

UI Design and Development

HUMAN CENTERED DESIGN

(2019 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define reflective design.

2. List out levels of design.

3. Give one feature of QWERTY and DVORAK LA YOUR.

4. Define GUI.

5. List out the classifications of TUIS.

6. Define Taxonomics.

7. Define context.

8. Define physical comfort.

9. What is context technology?

10. How does display the design?

Part B $(5 \times 5 = 25)$

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain emotional design.

Or

(b) Elaborate multiple face of emotional design.

12. (a) What is covered in the interaction design specialization?

Or

(b) What are the interaction design basics? Explain.

13. (a) Explain Tokens and constraints.

Or

(b) Define Domain specific frameworks and taxonomies. Explain.

14. (a) Elaborate on cultural theory and design.

Or

(b) Explain in immersive experience design.

15. (a) What do you meant by multi disciplinary engineering approach in HFE? Explain.

Or

(b) Compare hot and cold stress?

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Part C (3 × 10 = 30)

Answer **all** questions either (a) or (b).

16. (a) Explain in detail three levels of design.

Or

(b) Elaborate on TUIs and its types.

17. (a) Explain various dimension of interaction design.

Or

(b) What are the complexities in Interaction design in engineering? Explain in detail.

18. (a) How ubiquitous computing can help us become better designers? Explain.

Or

(b) Explain in detail context technology.

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