

C-7474

Sub. Code

82713

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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. Mention the importance of intellectual property rights.
2. List different types of communication.
3. Are moral rights transferable? Justify.
4. Translate Projective profiling.
5. What is interactive prototype in UI design?
6. Define Copyrights.
7. Review on organizational ergonomics.
8. Show an example of mind map.
9. Describe on Usability.
10. Mention the features of user centred design.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain history of computers and multimedia.

Or

- (b) Discuss on types of psychology.

12. (a) Outline the properties of good knowledge representation techniques.

Or

- (b) Summarise about various practices to a good UI design.

13. (a) What is intellectual property? Explain it in detail.

Or

- (b) Differentiate between UI and UX design.

14. (a) Briefly explain the term – the idea of sign.

Or

- (b) Discuss on user interface development process.

15. (a) Explain the steps involved in project management.

Or

- (b) What is Ubiquitous computing? How can a business use it?

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain how to identify customer touch points and give some suitable example.

Or

- (b) Explain in detail about the five elements of user experience design.

17. (a) How behavioural design creates the best user experience? Discuss in detail.

Or

(b) Articulate about Emerging Technologies in UX Design in detail.

18. (a) Explain the various phases of SDLC with suitable examples.

Or

(b) What are software development models? Explain any two models.

C-7475

Sub. Code

82714

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

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. What are constant arguments?
2. Differentiate between Local and Global Variable.
3. Compare call by value with call by reference.
4. What is reference variable?
5. What is data hiding? How is it implemented in C++?
6. What is static data member?
7. What are character references?
8. Differentiate seekp () and seekg ().
9. List out some primary CSS text properties.
10. What is iterator in C++?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain assignment operators with an example.

Or

- (b) Explain goto statement with an example.

12. (a) Explain call by pointer with an example.

Or

- (b) Explain structures with example.

13. (a) Explain the different access specifiers with example.

Or

- (b) Explain encapsulation with suitable example.

14. (a) Explain new form of input types in HTML5.

Or

- (b) Explain HTML5 Graphics.

15. (a) What is CSS flexbox? Explain with an example.

Or

- (b) Outline the uses of CSS media queries.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail abstract class with example.

Or

- (b) Explain in detail copy constructor with example.

17. (a) Discuss in detail various formatting tags in HTML5 with suitable example.

Or

- (b) How to create a link that will connect to another web browser page when clicked in HTML5? Explain.

18. (a) Write a program to find the factorial of a number using functions.

Or

- (b) How to implement the basic layout components of the box model in CSS? Explain it with suitable example.
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C-6218

Sub. Code

82723

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

UI Design and Development

UI DEVELOPMENT – I

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define – Array.
2. What do you mean by Recursive?
3. What is overriding?
4. State the needs of Callback functions.
5. What do you mean by Image Slider?
6. What is Export Data?
7. List out the Importance of Partial.
8. State the need of framework.
9. Mention about Accessors.
10. List out the Importance of Maps.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Outline the different derived data types.

Or

- (b) Give a short note on Enum.

12. (a) Describe about Password Validation.

Or

- (b) Write about Advanced Java Script.

13. (a) Discuss the need of Smooth Scrolling using J Query.

Or

- (b) Describe about J Query functions.

14. (a) Explain about the Arguments.

Or

- (b) Describe about different types of framework.

15. (a) Write about basics of framework.

Or

- (b) Give a short note on XML parsing.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the growth and Development Scripting.

Or

- (b) Explain about different constants.

17. (a) Give a detailed note on predefined event.

Or

(b) Describe about one dimensional and two dimensional array.

18. (a) Explain about pass by value.

Or

(b) Describe about SaaS framework.

C-6219

Sub. Code

82724

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

UI Design and Development

UX DESIGN — I

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. What is UXD Design?
2. What is visual design?
3. What is contextual enquiry?
4. What is survey?
5. What is research?
6. Define ethnography.
7. What is marketing?
8. Define anthropology.
9. What is content strategy?
10. Expand CSF.

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) What are the elements of economy?

Or

- (b) Write about flow and interaction.

12. (a) Outline the importance of qualitative research.

Or

- (b) Outline the importance of quantitative research.

13. (a) Explain user group definitions.

Or

- (b) Write the procedure in selecting research questions.

14. (a) Discuss about the UXD ecosystem.

Or

- (b) Write about market segment analysis.

15. (a) Write about legal consideration.

Or

- (b) Write about flexible content strategies.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Elaborate on the golden rules of UX design.

Or

- (b) Elaborate on the effects of good UXD design.

17. (a) Elaborate on the research techniques and research analysis.

Or

(b) Explain the following in detail.

(i) Social anthropology

(ii) Cultural anthropology

(iii) Linguistic anthropology.

18. (a) Elaborate in detail about pricing and payment.

Or

(b) Highlight the importance of user profile and user analysis.

C-7476

Sub. Code

82732

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

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. Define raster graphics.
2. What are the advantages of 3D buttons?
3. Define web layout.
4. Show an example for logo design.
5. Expand GIF.
6. Show an example of typography.
7. Mention the purpose of search bar.
8. What is hybrid application?
9. What is Metro UI?
10. Mention the advantages of one page design.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the features of menu bar.

Or

- (b) Write note on font theme.

12. (a) Explain magazine design principles.

Or

- (b) Write notes on grid layout design.

13. (a) What is IOS UI design? Extend.

Or

- (b) What is vector illustration? Give examples.

14. (a) Mention the global standards for fonts.

Or

- (b) Summarise the functions of sorts and filters.

15. (a) Write notes on web mock-ups.

Or

- (b) Write notes on exporting of web design.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the theory of digital art and design.

Or

- (b) Explain the principles of

(i) Icon design

(ii) Poster design

17. (a) Differentiate between android UI design and IOS UI design with examples.

Or

- (b) What are mobile design patterns? Extend.

18. (a) Outline the standards of web design for various mobile device platforms.

Or

- (b) Explain the principles of web page design and its components.
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C-7477

Sub. Code

82733

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

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. Define responsive design.
2. What is the purpose of CSS?
3. Define Grid system.
4. What is Bootstrap?
5. Which plugin is used to create a dropdown in Bootstrap?
6. Which class is used for pagination in bootstrap?
7. What is the main use of Glyphicons?
8. Mention the uses of Angular JS.
9. Define Node JS.
10. Write short on data binding.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the features of responsive design.

Or

- (b) Outline the principles of responsive design.

12. (a) Explain CSS frameworks.

Or

- (b) Explain JS frameworks.

13. (a) What do you mean by advanced bootstrap? Explain.

Or

- (b) Write note on alert plugins.

14. (a) Define the function of frameworks.

Or

- (b) What are web frameworks? Give examples.

15. (a) Write notes on Form validation.

Or

- (b) Write notes on Angular JS architecture.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain various tools available to build responsive dynamic web pages.

Or

- (b) Explain about JavaScript frame works with suitable examples.

17. (a) Write notes on
- (i) Media queries in CSS3
 - (ii) HTTP protocol

Or

- (b) Describe the importance of JS frame works with examples.
18. (a) Give overview of responsive design frameworks.

Or

- (b) How to handle database with Node JS? Explain.
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C-7478

Sub. Code

82734

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

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 conflict management?
2. Define prototype.
3. What is web board?
4. How to you use card sorting for better information architecture?
5. What do you mean by visual heat?
6. What does a wireframe need?
7. When to create funnel diagram?
8. Define hyperlinking.
9. What is desktop prototyping?
10. Write notes on test report.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain Trust building.

Or

(b) Explain the importance of speaking in user's language.

12. (a) Mention the advantages of Card Sorting in UX Research.

Or

(b) Explain exploratory card sorting.

13. (a) Explain about wire framing tools.

Or

(b) Difference between low fidelity and high-fidelity wire frame.

14. (a) Explain usability test reports data analyses.

Or

(b) Usage of Usability test reports.

15. (a) Explain anatomy of funnel diagram.

Or

(b) What is layout adaptation? Explain.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the importance of paper prototyping with examples.

Or

(b) What are the most important things to understand throughout a UX design process? Explain.

17. (a) Elaborate on the function familiarity test in detail.

Or

(b) Extend the anatomy of the perfect test report with suitable example.

18. (a) Explain UX design principles for wire frames.

Or

(b) Explain the following

(i) Storyboarding essentials

(ii) Documentation

C-6223

Sub. Code

82742

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

UI Design and Development

WEB APPLICATION DEVELOPMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is server side development?
2. List out the advantages of using PHP.
3. Define classes and namespaces in PHP.
4. State cookies and sessions.
5. Write the join query with example
6. State union in DBMS.
7. List out the procedure of database connectivity.
8. State Normalization.
9. Define Asynchronous script.
10. List out the advantages of using AJAX.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) How to run the interactive PHP shell from the command line interface?

Or

- (b) What is the difference between PHP4 and PHP5?

12. (a) Write a short on how PHP and HTML interact.

Or

- (b) How can we connect to a MySQL database from a PHP script?

13. (a) Explain different schemas used in DBMS.

Or

- (b) Summarize the functionalities of JDBC.

14. (a) List the types JDBC drivers.

Or

- (b) What are the advantages of using a DBMS?

15. (a) What is a synchronous request in AJAX?

Or

- (b) What are the different ready states in AJAX?

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Difference between synchronous and asynchronous AJAX requests.

Or

- (b) Explain in detail about pooling in AJAX.

17. (a) Explain the DBMS architecture with example.

Or

(b) Explain the connectivity procedure of PHP and DBMS.

18. (a) Write a short notes on how to optimizing the database.

Or

(b) Discuss briefly about the storage procedures in DBMS.

C-6224

Sub. Code

82743

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

UI Design and Development

MOBILE APPLICATION DEVELOPMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. How do you compile the Java program? Explain.
2. What is meant by Encapsulation?
3. List out different types of java constructors.
4. What are the advantages of interface?
5. What is the importance of having an emulator within the Android environment?
6. Why byte code cannot be run in Android?
7. Define content provider.
8. Difference between on Create() and onStart().
9. List any four hardware interfaces in android.
10. Difference between RelativeLayout and LinearLayout.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Discuss any four basic concepts of Object oriented programming.

Or

- (b) Discuss in detail about different media queries with proper example.

12. (a) Write short notes on Threads.

Or

- (b) Discuss the similarities between interfaces and classes.

13. (a) Differentiate between IOS and Android.

Or

- (b) Compare the open source vs traditional development methodologies.

14. (a) Write short notes on Inter process communication mechanism.

Or

- (b) Write short notes on Implicit and Explicit Intents.

15. (a) Discuss about event listener and handler with example.

Or

- (b) With example explain Multimedia Techniques in Android.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write a java program to arrange the elements of the array in an ascending order.

Or

- (b) What are the steps involved in loading and running a remote Applet? Explain.

17. (a) Explain how a small application is designed, developed and deployed in emulator using Eclipse.

Or

- (b) Write notes on.

- (i) Animation
- (ii) Updation
- (iii) Setting timer.

18. (a) What is persistence? How is data stored and retrieved to a database?

Or

- (b) How are debugging and emulators useful in eclipse for programming?

C-7481

Sub. Code

82751

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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 artificial intelligence.
2. What do you mean by classifiers?
3. Define AI control problem.
4. How search algorithms work?
5. Define the features of VR.
6. Write note on 2D geometric model.
7. What is AR intelligence?
8. What sensors are used in augmented reality?
9. Outline the features of IoT.
10. Expand BCI.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the importance of AI.

Or

(b) Differentiate between BFS and DFS.

12. (a) Explain about predicate logic.

Or

(b) Write notes on Production based system.

13. (a) Discuss about Virtual Reality Modelling Language.

Or

(b) What is matrices in VR? Give examples.

14. (a) Explain motion tracking in AR.

Or

(b) Discuss on Augmented Reality tracker.

15. (a) Explain the uses of actuator in IoT.

Or

(b) Explain the uses of sensors in IoT.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the concept of artificial intelligence with suitable examples.

Or

(b) Summarise the applications of Search Algorithms with examples.

17. (a) Extend the role of Virtual Reality technology in gaming technology.

Or

- (b) Explain the following :
- (i) Canonical view transforms.
 - (ii) Viewport transformation

18. (a) Explain the following :

- (i) SIFT algorithms
- (ii) SURF algorithms

Or

- (b) Explain the concept of augmented reality with suitable example.
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C-7482

Sub. Code

82752

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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 are the advantages of software testing?
3. What are the measures of Quality?
4. Show an example for grid view.
5. Define the features of QMS.
6. Define quality assurance.
7. Mention the importance of testing.
8. What is defect trigger?
9. What is usability test?
10. Write short notes on testing tools.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the features of software testing.

Or

- (b) What is process maturity? Explain.

12. (a) What are the quality goals?

Or

- (b) Write notes on quality measure paradigm.

13. (a) List down the elements of quality.

Or

- (b) Explain cleanroom testing.

14. (a) How to create a test plan? Extend.

Or

- (b) Summarise about test automation.

15. (a) Write notes on Remote usability testing.

Or

- (b) How to capture a data for usability test?

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the concepts of quality and quality improvement.

Or

- (b) Differentiate between quality control and quality assurance.

17. (a) Explain various standards and elements of quality in software testing.

Or

- (b) Summarize the elements of ISO 9000 series of standards.

18. (a) What is combinational testing? Explain combinatorial testing tools in software testing.

Or

- (b) Explain how to analyse and report usability test results with suitable example.

C-7483

Sub. Code

82755A

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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. Define Information architecture.
2. List down the components of IA.
3. Define IA navigation system.
4. What is local navigation system?
5. Mention the importance of blueprints.
6. Mention the need for user model.
7. What is metadata?
8. What is the purpose of user tagging?
9. Define search engine.
10. What is web mining?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are behaviours in UX?
Or
(b) Outline the features of user experience design.
12. (a) Why are stakeholders important in design thinking?
Or
(b) What is the difference between IA and sitemap?
13. (a) List down the common errors in user centred design.
Or
(b) What is site organisation? Give example.
14. (a) Mention the features of destination page.
Or
(b) Summarise the content of web page design.
15. (a) Explain about google keywords.
Or
(b) Explain about information hierarchy.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the following:
(i) Local navigation
(ii) Contextual navigation
Or
(b) Differentiate between types of navigations with suitable example.

17. (a) Explain about sitemap and flow task on user experience design.

Or

(b) Write notes on :

(i) User rating

(ii) Knowledge system organisation

18. (a) Outline the importance of typographic in web page design.

Or

(b) Discuss about search engine algorithms.

C-7484

Sub. Code

82755B

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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. What are HCI?
2. What is human perception in HCI?
3. Define interactive design.
4. Mention the importance of screen design.
5. What is hypertext?
6. Expand WWW.
7. What are input controls?
8. What do you mean by universal design?
9. Define Overlay.
10. What do you mean by virtual page?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Define ergonomics with example.

Or

- (b) What are the memory devices in computer?

12. (a) Discuss on usability engineering.

Or

- (b) Explain the principles of design.

13. (a) Which are the cognitive models? Give examples.

Or

- (b) Outline the features of multimedia.

14. (a) Write note on application framework.

Or

- (b) Write note on mobile design.

15. (a) Explain about widgets.

Or

- (b) Explain about direct selection tool.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about input and output channels in HCI.

Or

- (b) Identify and solve communication problems over various mediums.

17. (a) Discuss on socio-organizational issues and stakeholder requirements.

Or

(b) Write notes on :

(i) Design standards

(ii) Design guidelines

18. (a) Outline the importance mobile ecosystem with suitable examples.

Or

(b) Discuss about the basics of interactive design on HCI.

C-7485

Sub. Code

82755C

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

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. What is Emotional Design?
2. What is behaviour in UX design?
3. Define interactive design.
4. Mention the importance of human centered design.
5. What do you mean by token?
6. What are tangible user interfaces?
7. What is ubiquitous computing?
8. Define context technology.
9. Define comfort.
10. What do you mean by visual comfort?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Define the concept of emotional design.

Or

- (b) How are emotions and design related?

12. (a) Discuss about the operations in interaction design.

Or

- (b) How to manage complexities in interactive design?

13. (a) Outline the history of tangible user interfaces.

Or

- (b) Mention the types of tangible user interface.

14. (a) Write note cultural theory.

Or

- (b) Write note on cultural design.

15. (a) Explain about mental comfort.

Or

- (b) Explain about physical comfort.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail on design decisions based on ergonomic and emotional qualities of human.

Or

- (b) Discuss about interaction design in engineering centric world.

17. (a) Discuss on human factor engineering in related to user centred design.

Or

- (b) Write notes on :
- (i) Interaction design as business lubricant
 - (ii) Interaction design as communication
18. (a) Outline the importance cultural and contextual theory in human centred design.

Or

- (b) Explain the following :
- (i) Frameworks
 - (ii) Taxonomies
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C-7013

Sub. Code

**16/17/23/25/
26/27/29**

**COMMON FOR ALL U.G DEGREE COURSES
EXAMINATION, NOVEMBER 2022**

First/Second Semester

ENVIRONMENTAL STUDIES

(2019/2020 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Nonrenewable resources
2. Ecosystem
3. Food Chain of forest ecosystem.
4. Pandemic Emergencies.
5. Red Data Book
6. Hot spots
7. Climate Change
8. Deforestation
9. Biodiversity
10. Acid Rain

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Differentiate renewable and nonrenewable energy resources.

Or

- (b) Write notes on structure and functions of grassland ecosystem.

12. (a) Write notes on Food Webs of Forest Ecosystem with suitable examples.

Or

- (b) Write notes on Genetic, Species and Ecosystem Diversity.

13. (a) Write short notes on Food resources and its problems associated with them.

Or

- (b) Write notes on land resources and problem associated with them.

14. (a) Write notes on thermal pollution.

Or

- (b) Write notes on energy pyramids with suitable examples.

15. (a) Explore the threats to biodiversity.

Or

- (b) Write note on man-made disaster with special reference to strike.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Write an essay on multidisciplinary nature of environmental studies and about the need for public awareness on environment.

Or

- (b) Write an essay on Water Resources and problem associated with over-utilization of various water resources.
17. (a) Write an essay on Biogeographical classification of India.

Or

- (b) Write an essay on values of biodiversity.
18. (a) Write an essay on causes, effects and control measures of water pollution.

Or

- (b) Enumerate various strategies in managing disasters caused due to natural calamities.
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C-5664

Sub. Code

**16/17/23/25/
26/27/29**

**Common for All U.G. B.Sc./B.B.A. DEGREE
EXAMINATION, APRIL 2022**

First/Second Semester

ENVIRONMENTAL STUDIES

(2019/2020 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. ZSI.
2. WII.
3. What is renewable energy?
4. Food web.
5. Pyramid of numbers in aquatic ecosystem.
6. Red data book.
7. List out any five Endemic species of India.
8. List out marine pollutants.
9. *Ex Situ* Conservation.
10. Enlist Option Values of Biodiversity.

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Write notes on definition, scope and importance of environmental studies.

Or

- (b) Write notes on soil erosion and desertification.

12. (a) Write notes on energy flow in the ecosystem.

Or

- (b) Write notes on threads to biodiversity.

13. (a) Write notes on Biodiversity at Global, National and Local levels.

Or

- (b) Write notes on various strategies of conservation of Biodiversity.

14. (a) Write notes on ecological pyramids.

Or

- (b) Write notes on air pollution.

15. (a) Write notes on noise pollution.

Or

- (b) Write notes on effects and control measures of nuclear hazards.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write an essay on the multidisciplinary nature of Environmental Studies.

Or

- (b) Write an essay on the following resources with special emphasis to how they are overexploited/utilized which in turn damage the environment, (i) Forest Resources and (ii) Food Resources.

17. (a) Write an essay on “India is a mega-diversity nation”.

Or

- (b) Write an essay on Biodiversity and their values.

18. (a) Write an essay on causes, effects and control measures of (i) Marine Pollution and (ii) Water Pollution.

Or

- (b) Write an essay on concept, structure and function of ecosystem.