C–1882	Sub. Code
	96442

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fourth Semester

Computer Science

DATABASE MANAGEMENT SYSTEMS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. What is data inconsistency?

2. Write the components of storage manager.

3. Define the term super key.

4. What is temporal data?

5. Draw the general structure of client server system.

6. List the network types.

7. How do we display rows from the table without duplicates?

8. What are sequences?

9. When do you need declare statement?

10. Define the term package.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) List and explain database system applications.

Or

(b) Describe the functions of database administrators.

12. (a) Write the features of relational design.

Or

(b) Give a brief account on closure of a set of functional dependencies.

13. (a) Write short note on transaction server.

Or

(b) Write about the approaches to store the relation in the distributed database.

14. (a) Write a note on indexes.

Or

(b) Discuss on privileges and grants.

15. (a) Write a PL/SQL procedure to find the greatest of three numbers.

Or

(b) Briefly explain the attributes of a cursor.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Elaborate on view of data.

Or

(b) Explain about E–R design issues.

17. (a) Discuss on decomposition using functional and multivalued dependencies.

Or

(b) Describe in detail about distributed transactions.

18. (a) Discuss on various types of constraints in a table.

Or

(b) What is trigger? Explain with an example.

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C–1884	Sub. Code
	96443

B.Sc. DEGREE EXAMINATION, APRIL 2024

Fourth Semester

Computer Science

VISUAL BASIC

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. Write any four tools in Visual Basic Toolbar and their use.

2. Write the VB code segment to find the difference between two dates.

3. Write the procedure to add the status bar to VB form.

4. How to make the menus and menu items visible or invisible?

5. What are the uses of text box and rich text box controls?

6. Write about shape control.

7. List the data-bound controls.

8. How to create the code component?

9. How to add an event into the ActiveX control?

10. Write the code to deactivate the OLE object

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) How to handle strings in VB? Explain an with example.

Or

(b) Create EB bill calculator program with Switch statement.

12. (a) How to arrange MDI child windows and add new MDI child windows?

Or

(b) Write VB code to define the Visual Basic Predefined Menus.

13. (a) Write code to create a Student personal data collection form using text box and other Supporting controls.

Or

(b) Explain the use of Timer Control in VB with an example.

14. (a) Explain VB data visual manager

Or

(b) Write the procedure to create RDO result set.

15. (a) Explain How to activate OLE objects from code.

Or

(b) How to use OLE control arrays to handle multiple OLE objects? Explain.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain the Visual Basic Loop controls.

Or

(b) Explain the basic properties of forms and controls on tool box.

17. (a) Discuss in detail about Frame control and Label control.

Or

(b) Write VB code to create an employee database form with ADO controls.

18. (a) Write the procedure to create and register an ActiveX control.

Or

(b) Write detailed notes on Handling multiple OLE objects.

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C–1886

Sub. Code
96446

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Fourth Semester

Computer Science

APPLIED PHYSICS – II (Allied)

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. State avalanche break down voltage.
2. Define Hall Effect.
3. Define h parameter.
4. What is FET.
5. Define laser.
6. What do you meant by Meta stable state?
7. Define LED.
8. Write down any two materials for LED preparation.
9. Define CMMR.
10. Define pin configuration of Op-Amp.

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

Answer **all** questions.

11. (a) Write a short note an Hall Effect.

Or

(b) Distinguish intrinsic and extrinsic semiconductors.

12. (a) Fabricate CE configuration mode of NPN transistor and explain its DC characterisation.

Or

(b) An npn silicon transistor has VCC = 6 V and the collector load RC = 2.5 kΩ. Find the maximum collector current that can be allowed during the application of signal for faithful amplification.

13. (a) Write a short note an Ammonia maser.

Or

(b) Derive an expression for population and inversion.

14. (a) Briefly explain radiation transition emission spectra with luminescent efficiency.

Or

(b) Discuss in brief the working of seven segment display.

15. (a) Write a short note an: inverting OP-Amp.

Or

(b) Prove this statement "OpAmp as a comparator".

Part C

$(3 \times 10 = 30)$

Answer **all** the questions.

16. (a) Explain in detail theory of energy band in crystal.

Or

(b) Describe in detail Hall effect for semiconductor.

17. (a) Construct and confirm transistor as an amplifier.

Or

(b) (i) Distinguish FETs,

(ii) Proof FET as an amplifier.

18. (a) Explain in detail the working of solid state laser with neat energy level diagram.

Or

(b) Explain in detail the principle and working of LED.

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C–1887	Sub. Code 96461

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Sixth Semester

Computer Science

C# .NET PROGRAMMING

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What type of language is C#?
2. How does C# differ from C++?
3. Write a note on boxing.
4. What is the use of event handling?
5. What is exception handling?
6. List out any four namespaces.
7. What is debugging?
8. How to use the comment option in XML?
9. What is delegate?
10. How do you schedule a thread?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Brief on Common Language Runtime in C# environment.

Or

(b) Explain Visual Studio and NET languages.

12. (a) Explain the structure in C# with an example program.

Or

(b) Discuss in detail about destructors with an example.

13. (a) Illustrate the concept of throwing exceptions.

Or

(b) Explain the concept of iterations in C#.

14. (a) Make a detailed note on unmanaged code interoperating.

Or

(b) Discuss platform invocation services in detail.

15. (a) Discuss in detail about events in C#.

Or

(b) Explain how threads can be synchronized.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Detail on the features of C#.

Or

(b) Describe the C# data types with examples.

17. (a) Explain the step by step procedure to create a Simple client.

Or

(b) Elaborate on debugging.

18. (a) Explain in detail about Console I/O management.

Or

(b) Explain file management in C#.

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C–1888	Sub. Code
	96462

B.Sc. DEGREE EXAMINATION, APRIL 2024.

Sixth Semester

Computer Science

COMPUTER GRAPHICS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. Differentiate between line and line segments.
2. What are the types of Computer graphics?
3. What is Shadow-mask?
4. Define the term Frame buffer.
5. Define the term Skewing.
6. What is View Port?
7. Write down the applications of Clipping.
8. Define the term World coordinate.
9. What are the uses of function keys?
10. Mention the two types of character printers.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What is vector graphics? Discuss briefly about its types.

Or

(b) What are line attributes? Explain about its types with a neat structure.

12. (a) What is Color display technique? Discuss in brief about its types.

Or

(b) What is Raster scan Display? Explain in brief with its architecture.

13. (a) What is Homogeneous Transformation? Discuss.

Or

(b) What are the different types of segment display? Explain.

14. (a) Discuss the following,

(i) point clipping,

(ii) Line clipping.

Or

(b) Explain briefly about Liang-Barsky line clipping algorithm with an example.

15. (a) Discuss briefly about few output devices with a neat structure.

Or

(b) Write short notes on various output devices.

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

Answer **all** the questions.

16. (a) Discuss in detail about DDA algorithm.

Or

(b) Discuss in detail about Video display devices.

17. (a) Discuss on Scaling and reflection in transformation with illustrations.

Or

(b) Explain Sutherland Hodgeman algorithm.

18. (a) Discuss in detail about polygon Clipping algorithm.

Or

(b) What is echoing? Explain how does echo check work?

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