4448/6

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

COMPUTERS

Paper VI

(Object-Oriented Programming with C++)

(CBCS)

[*Max. Marks*: 60

Time: 3 Hours]

Answer any **four** *questions, including Q.No.* **1** *which is* **compulsory.**

(Marks: 4 × 15 = 60)

(Marks: 3 × 5 = 15)

1. Attempt any **three** questions in short-form:

   (a) What do you mean by Object-Oriented Programming?

   (b) What is abstract data type?

   (c) What is Function Overloading?

   (d) What is Polymorphism?

   (e) What do you mean by data structure?

   (f) What do you mean by Pop Operations?

2. Discuss the various data types in C++.

3. Explain various types of branching statements in C++.

4. Discuss Class and Objects.

5. What is a destructor? Explain with an example.

6. Explain unary operator overloading with the help of an example.

7. Explain multiple inheritance with the help of an example.

8. Explain stream classes and give stream classes for console operation.

9. Discuss unformatted input / output operations in C++.

10. Discuss about Queues and Linked List.

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FACULTY OF SCIENCE
B.Sc. (I Semester) Examination
COMPUTER SCIENCE
Paper I
(Object Oriented Programming With C++)
(Under CBCS)

[*Max. Marks* : 80

Time : 2 *Hours*]

Section A – (Marks: 4 × 10 = 40)
Answer any **four** *questions.*

1. Define algorithm. Write an algorithm to find the sum of digits of a given number.

2. Write the structure of C++ program.

3. Explain about function overloading with suitable example.

4. Define a pointer. Discuss about different operations of a pointer.

5. Compare and contrast the structure with Union.

6. Discuss about friend function.

7. Write about pure virtual functions.

8. Explain about multi-level Inheritance.

Section B – (Marks: 2 × 20 = 40)
Answer any **two** *questions.*

9. Discuss about the features of object-oriented programming.

10. Compare and contrast the function call by value and call by reference with example.

11. Discuss about constructor overloading with suitable example.

12. What are the uses of Templates? Discuss about the function of Templates in detail.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT
B.Com.(I Semester) Examination
INFORMATION TECHNOLOGY
Paper – IV
(Common for B.Com. Regular/Computer/Taxation)

Time : 3 Hours] [*Max. Marks* : 80/60
(Regular/Computer)

Section A – (Marks: 5 × 4 = 20) (Regular)
(Marks: 5 × 3 = 15) (Computer)

1. Answer any **five** of the following:
   (a) Define Computer.
   (b) What are the different types of computers?
   (c) What is cryptography?
   (d) What are the wild card charters?
   (e) What is a word processor?
   (f) What is cell reference?
   (g) What are the different types of slides?
   (h) What is ISP?

Section B – (Marks: 5 × 12 = 60) (Regular)
(Marks: 5 × 9 = 45) (Computer)

2. (a) Explain the block diagram of a computer.

   Or

   (b) Explain various types of Input and Output Devices.

3. (a) What is an operating system and explain its functions?

   Or

   (b) What is DOS and explain its internal commands?

4. (a) Explain the process of creating, entering and saving a word document.

   Or

   (b) Explain the procedure involved in mail merge.

5. (a) What is a spread sheet and explain its features?

   Or

   (b) Explain the various menus of MS-Excel.

6. (a) Explain the procedure for creation of slides in PowerPoint.

   Or.

   (b) Explain various multi-media applications.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (I Semester) Examination

INFORMATION TECHNOLOGY

Paper IV

(Common to B.Com. Regular / Computers / ASM / Taxation / TPP/ CSP / Insurance)

Time : 3 Hours]   [*Max. Marks* : 80/60

(Regular/Computers)

Section A – (Marks: 5 × 4 = 20) (Regular)
(Marks: 5 × 3 = 15) (Computers)
(Short Answer Questions)

1. Answer any **five** questions:

   (a) CPU

   (b) Secondary Storage Devices

   (c) Virus

   (d) Desktop

   (e) Headers & Footers

   (f) Sorting and Filtering in Excel.

   (g) Slide Animation.

   (h) www

Section B – (Marks: 5 × 12 = 60) (Regular)
(Marks: 5 × 9 = 45) (Computers)
Answer **all** *questions.*
(Essay Type Questions)

2. (a) Explain the Generations of Computers.

                          Or

   (b) Explain different types of Computers.

3. (a) What is an Operating System? Explain the functions of Operating System.

                          Or

   (b) Write about Windows Accessories.

[P.T.O.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (I Semester) Examination

INFORMATION TECHNOLOGY

Paper IV

(Common for B.Com. Regular/Computer/Taxation)

Time : 3 Hours]

[*Max. Marks* : 80/60

(Regular/Computers)

Section A – (Marks : 5 × 4 = 20) (Regular)

(Marks : 5 × 3 = 15) (Computers)

1. Answer any **five** questions:

   (a) RAM and ROM

   (b) EPROM

   (c) Virus and Hackers

   (d) MS Word

   (e) Cell referencing

   (f) Browsing

   (g) Cryptology

   (h) Worksheet.

Section B – (Marks : 5 × 12 = 60) (Regular)

(Marks : 5 × 9 = 45) (Computers)

Answer **all** *questions.*

(Essay Type Questions)

2. (a) Explain the basic components of a computer system.

   Or

   (b) Explain the different types of computers.

3. (a) What is Booting? Explain the process of booting.

   Or

   (b) Write about Control Panel.

[P.T.O

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Time : 2 Hours]   *[Max. Marks : 80*

Section A – (Marks : 4 × 10 = 40)

*Answer any **four** questions.*

1. Define Operating System. What are the characteristics of Operating System?

2. Distinguish in detail about the Computer System Architecture.

3. Explain FCFS and SJF Scheduling Algorithms with suitable examples.

4. Discuss Critical-Section problem.

5. What is Demand Paging? Explain.

6. Give a brief note on Segmentation.

7. Demonstrate File-system Mounting Protection.

8. Discuss different types of File Access Methods.

Section B – (Marks : 2 × 20 = 40)

*Answer any **two** questions.*

9. Explain the role of Inter-Process Communication in detail.

10. What is Deadlock? Explain the procedure to Recovery from Deadlock.

11. Explain Memory Allocation Techniques in detail .

12. Discuss RAID Structure.

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Faculty of Science

B.Sc. (VI-Semester) Examination

COMPUTER SCIENCE

Paper-VIII (a)

Operating Systems

Time: 3 Hours]

[Max. Marks: 80

Section – A (Marks: 4x10=40)
Answer any Four questions

1. What is process scheduling? Explain scheduling queues with a neat diagram.
2. Explain operating system services in detail.
3. Explain about critical section problem.
4. Explain any three scheduling algorithms.
5. What is swapping? Explain.
6. Write about contiguous memory allocation.
7. Explain about indexed allocation and linked allocation methods.
8. Write about file system mounting.

Section – B (Marks: 2x20=40)
Answer any Two questions

9. What is Interprocess communication? Explain models of interprocess communication.
10. What is Deadlock? Explain deadlock handling mechanisms in detail.
11. What is page replacement? Explain different page replacement algorithms.
12. Explain about RAID structure in detail.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (VI Semester) Examination

WEB TECHNOLOGY

Paper V

(Computers)

(Under CBCS)

Time : 2 Hours] [*Max. Marks* : 60

Answer any **four** *questions, including Q. No.* **1**, *which is* **compulsory**.

(Marks: 4 × 15 = 60)

1. Attempt any **three** questions in short-form : 3 × 5 = 15

   (a) What is Markup Language?

   (b) What do you mean by <BR> and <HR>?

   (c) What is CSS?

   (d) What are the data types in JavaScript Language?

   (e) Define event.

   (f) What is event handling in JavaScript?

2. Explain the basic structure of HTML document.

3. What is a form? Explain <FORM> and <INPUT> tags used in HTML forms.

4. What is DHTML? Explain various components of DHTML.

5. Explain various CSS embedding techniques.

6. Explain the various conditional statements used in JavaScript.

7. What is an object and explain various member functions of math object and date object?

8. Explain with suitable examples:

   (a) onclick and ondblclick

   (b) onLoad and onUnload

   (c) onfocus.

9. Explain with suitable examples:

   (a) onabort

   (b) onerror

   (c) onsubmit

   (d) onmouseover and onmouseout.

10. What is XML document? What are the different rules to write XML document?

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (VI Semester) Examination

COMPUTERS

Paper V

(Web Technology)

(Under CBCS)

Time : 3 Hours]   [Max. Marks : 60

Answer any **four** *questions, including Q. No.* 1.

(Marks: 4 × 15 = 60)

1. Attempt any **three** questions in short-form: (3 × 5 = 15)

    (a) What is URL? Give an example.

    (b) What is DHTML?

    (c) What is Scripting Language?

    (d) What is Event handling in JavaScript?

    (e) Explain 'onMove and onResize'.

2. Explain basic structure of HTML document.

3. What are Document Tags? Explain various document tags used in HTML.

4. Explain Id and Class Selectors in CSS with an example.

5. Explain the procedure for creation of multimedia effects with CSS Filters and Transitions.

6. What are the conditional statements in JavaScript? Explain them.

7. Explain the procedure to embed JavaScript code in HTML document with an example.

8. Explain 'onclick and ondblclick'; 'onfocus' and 'onabort' with examples.

9. Explain 'onsubmit'; 'onMouseMove and onMouseUp' and 'onmouseover and onmouseout' with examples.

10. What is DTD and explain types of DTD.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT
B.Com. (IV Semester) Examination
COMPUTERS
Paper III
(Web Technologies)
(New)

[Max. Marks : 50

Time : 3 Hours]

Section A – (Marks: 5 × 3 = 15)

1. Answer any **five (5)** of the following:

   (a) What do you mean by Paired and Unpaired Tags?

   (b) Define Hyper Text and Markup Language.

   (c) What are the components of DHTML?

   (d) Define CSS Rule.

   (e) What is Scripting language?

   (f) CharAt(index); concat(str) and indexOf(str).

   (g) Define PHP.

   (h) What are XML Elements?

Section B – (Marks: 5 × 7 = 35)
Answer all questions.

2. (a) Explain the steps involved in the creation of HTML document.

   Or

   (b) Discuss the WEB design principles.

3. (a) Explain Text and Font properties of CSS.

   Or

   (b) Discuss various CSS Embedding techniques.

4. (a) Explain Looping statements in JavaScript.

   Or

   (b) Explain (i) onLoad and onUnload; (ii) onsubmit; (iii) onMouseMove and onMouseUp and (iv) onmouseover and onmouseout.

5. (a) Explain various data types in PHP.

   Or

   (b) Explain readfile(): fopen():fread() and fclose() functions in PHP.

6. (a) Explain the procedure for creation of XML document.

   Or

   (b) Explain Directive, Action and Scripting Elements of JSP.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (VI Semester) Examination

COMPUTERS

Paper V

(Web Technology)

(Under CBCS)

Time : 3 Hours]

[Max. Marks : 60

Answer any **four** *questions, including Q. No. 1.*

(Marks: 4 × 15 = 60)

(3 × 5 = 15)

1. Attempt any **three** questions in short-form:

    (a) What is URL? Give an example.

    (b) What is DHTML?

    (c) What is Scripting Language?

    (d) What is Event handling in JavaScript?

    (e) Explain 'onMove and onResize'.

2. Explain basic structure of HTML document.

3. What are Document Tags? Explain various document tags used in HTML.

4. Explain Id and Class Selectors in CSS with an example.

5. Explain the procedure for creation of multimedia effects with CSS Filters and Transitions.

6. What are the conditional statements in JavaScript? Explain them.

7. Explain the procedure to embed JavaScript code in HTML document with an example.

8. Explain 'onclick and ondblclick'; 'onfocus' and 'onabort' with examples.

9. Explain 'onsubmit'; 'onMouseMove and onMouseUp' and 'onmouseover and onmouseout' with examples.

10. What is DTD and explain types of DTD.

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FACULTY OF SCIENCE

B.Sc. (V Semester) Examination

COMPUTER SCIENCE

Paper VI (a)

(Computer Networks)

Time: 3 *Hours*]   [*Max. Marks*: 80

Section A – (Marks: 4 × 10 = 40)

Answer any **four** *questions.*

1. Discuss line configuration and data communication components.

2. Explain, how Fiber Optical and Coaxial Cable will work for Data Transmission?

3. How line discipline is achieved in different methods? Explain.

4. Explain the working of sliding window protocol.

5. Explain channel access in token ring.

6. What is switching? Why it is needed? Explain.

7. Discuss the role of Repeaters and Gateways in Internet working.

8. Explain the responsibilities of Interface between Transport Layer and upper layers.

Section B – (Marks: 2 × 20 = 40)

Answer any **two** *questions.*

9. (a) Explain the functions of layers in TCP/IP reference model.

    (b) Explain various methods of multipexing.

10. How errors occur in networks? Explain how to detect and correct errors using different methods.

11. Discuss in detail about Ethernet with CSMA/CD.

12. Explain any two routing algorithms.

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FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (I Semester) Examination

FUNDAMENTALS OF INFORMATION TECHNOLOGY

Paper III

(Computer)

(New)

(CBCS)

Time : 2 Hours]　　　　　　　　　　　　　　　　　　　　[*Max. Marks* : 50

Answer any **four** *questions, including Q.No.*1. *which is* **Compulsory**.

(Marks: 4 × 12½ = 50)

1. Attempt any **two** questions in short-form:　　　　　(2 × 12½ = 25)

    (a) What are the basic components of computer?

    (b) State the types of Magnetic Disk.

    (c) Define Software.

    (d) Multiprocessing.

    (e) LAN Topologies.

2. Describe the generation of computer.

3. How to give the input using Scanners and Digital camera?

4. Explain RAM, ROM, PROM, EPROM and EEPROM.

5. Sketch the block diagram of computer and explain.

6. Explain the classification of software.

7. Write the applications of spreadsheet.

8. Discuss the structure of MS-DOS.

9. Explain the components of Linux system.

10 Explain architecture and application of network.

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FACULTY OF SCIENCE

B.Sc. (III Semester) Examination

COMPUTER BASICS AND AUTOMATION

Paper III

(SEC - I)

Time : 2 Hours] [*Max. Marks* : 40

Section A – (Marks: 4 × 4 = 16)

1. Answer any **four** of the following:

   (a) Generation of Computer

   (b) Primary memory Vs Secondary memory

   (c) Magnetic disk

   (d) Recycle Bin

   (e) Web browser

   (f) Automation system.

Section B – (Marks: 2 × 12 = 24)

Answer all questions.

2. (a) Draw and explain the basic architecture of a processor.

   Or

   (b) Explain the advantages and disadvantages of different types of computers.

3. (a) Write steps to create, save, open and close an excel file.

   Or

   (b) Briefly explain the concept of mail-merge in MS Word.

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FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
COMPUTER SCIENCE
Paper V
(Programming in Java)
(Under CBCS)

Time : 3 Hours]   *[Max. Marks : 80*

Section A – (Marks: 4 × 10 = 40)
Answer any **four** *questions.*

1. Write about the different data types available in Java.

2. Define an object. Discuss about object creation and accessing of object data members.

3. Define array. Explain creation and initialization of array in Java.

4. Define abstract class. Explain with suitable example.

5. Write a Java program "to write the data into file using character string function".

6. Discuss thread life cycle in detail.

7. Discuss about GUI components.

8. Explain the importance of Applet in Java.

Section B – (Marks: 2 × 20 = 40)
Answer any **two** *questions.*

9. Discuss about looping statements in Java in detail.

10. Define a package. Discuss about package creations and usage of package with an example.

11. Discuss about Random Access Files in Java in detail.

12. What are JDBC statements? Discuss about them in detail.

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FACULTY OF SCIENCE

B.Sc. (IV-Semester) Examination

COMPUTER SCEINCE

Paper-IV

Data Base Management Systems

Time: 3 Hours]   [Max. Marks: 80

Section A (Marks: 8 x 4 = 32)
Answer any **Eight** questions

1 a) Write about the purpose of database systems.
   b) Write about relational operations.
   c) Significance of Entity-Relationship diagrams.
   d) Explain the terms primary key, candidate key, and superkey with examples.
   e) List features of good relational design.
   f) First Normal form.
   g) What is a view? Explain it.
   h) Write a brief note on Integrity Constraints.
   i) Give the classification of SQL and explain in brief.
   j) List the threats for databases. How to counter them?
   k) What is a transaction? Explain its properties.
   l) What is serializability? Explain with an example.

Section B (Marks: 4 x 12 = 48)
Answer all questions

2 a) What is the use of data models? List and explain different data models?

OR

   b) What is the use of storage manager? List and explain storage manager components.

3 a) Give a note on mapping cardinalities and participation constraints.

OR

   b) What is functional dependency? Give a short note on BCNF.

4 a) List and explain basic operations in SQL with suitable queries.

OR

   b) List and explain different types of joins in SQL.

5 a) Explain access controls for a database systems.

OR

   b) Write a note on various RAID models.

FACULTY OF SCIENCE

B.Sc. (IV-Semester) Examination

COMPUTER SCEINCE

Paper-IV

Data Base Management Systems

Time: 3 Hours]   [Max. Marks: 80

Section A (Marks: 8 x 4 = 32)
Answer any **Eight** questions

1   a)   Write about the purpose of database systems.
    b)   Write about relational operations.
    c)   Significance of Entity-Relationship diagrams.
    d)   Explain the terms primary key, candidate key, and superkey with examples.
    e)   List features of good relational design.
    f)   First Normal form.
    g)   What is a view? Explain it.
    h)   Write a brief note on Integrity Constraints.
    i)   Give the classification of SQL and explain in brief.
    j)   List the threats for databases. How to counter them?
    k)   What is a transaction? Explain its properties.
    l)   What is serializability? Explain with an example.

Section B (Marks: 4 x 12 = 48)
Answer all questions

2   a)   What is the use of data models? List and explain different data models?
                                      OR
    b)   What is the use of storage manager? List and explain storage manager components.

3   a)   Give a note on mapping cardinalities and participation constraints.
                                      OR
    b)   What is functional dependency? Give a short note on BCNF.

4   a)   List and explain basic operations in SQL with suitable queries.
                                      OR
    b)   List and explain different types of joins in SQL.

5   a)   Explain access controls for a database systems.
                                      OR
    b)   Write a note on various RAID models.