

032

Code No. 18319

FACULTY OF SCIENCE  
B.Sc. VI Semester (CBCS) Examination, July / August 2021

Subject: Computer Science  
Paper – VII : Computer Networks

Time: 2 Hours

Max. Marks: 60

PART – A

Note: Answer any four questions.

(4 x 5 = 20 Marks)

- 1 Discuss five data communication components. *Sender, receiver, medium*
- 2 Define Simplex, half duplex and full duplex.
- 3 Explain the guided Transmission media in detail. *coaxial, digital, optical fibre*
- 4 Define multiplexing. Write advantages and disadvantages of multiplexing.
- 5 Discuss the Token Ring → *star topology*
- 6 Briefly give idea on CSMA/CD. *4 (ii) S - d*
- 7 What are the functions of transport layer? *H - mic*
- 8 Write a short notes on Routers and Repeaters. *E - Te*

*return for Data rate*

*routing, flow control, IP*

PART – B

Note: Answer any two questions.

(2 x 20 = 40 Marks)

- 9 Explain Network topologies. What are the differences between TCP/IP and OSI Reference models?
- 10 Explain Frequency-Division and Time-Division multiplexing in detail.
- 11 What is meant by error control? Write about stop and wait ARQ protocol with neat diagram.
- 12 Explain the sliding window Flow control in detail with neat diagram.
- 13 Write a static routing algorithm with suitable example of link state routing algorithm.
- 14 Write a short notes on:
  - (i) Switches
  - (ii) Session layer
  - (iii) Presentation layer
  - (iv) Application layer.

*Databay*

*message counter*

*framing  
\*\*\*\* data in pre  
ended  
already*

*FTP  
HTTP  
SMTP  
Dinley mng*

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Code No. F-15422

**FACULTY OF SCIENCE**  
**B.Sc. (CBCS) V- Semester Examination, December 2023/January 2024**

**Subject: COMPUTER SCIENCE**  
**Paper – GE : Information Technologies**

**Time: 3 Hours**

**Max. Marks: 80**

**PART – A**

**Note : Answer any Eight questions.**

**(8x4=32 Marks)**

1. What are the types of connection media?
2. Explain Half-duplex transmission mode with an example.
3. What are the applications of Internet?
4. Discuss the advantages of Distributed Networking.
5. Write about on-demand computing with an example.
6. Write short notes on Artificial Intelligence.
7. What is a Web Browser? Explain different types of Web browsers.
8. Discuss the importance of Information Security.
9. Discuss about information security services.
10. Write about application security.
11. What are the key considerations for data security?
12. Discuss E-cash system with an example.

**PART – B**

**Note : Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. (a) Explain various network topologies with neat diagrams. Discuss its advantages and disadvantages.  
OR  
(b) Describe OSI model with diagram in detail.
14. (a) Explain peer to peer computing with illustrations.  
OR  
(b) Describe wireless network architecture in detail.
15. (a) What is Email? Explain the features and functions of email.  
OR  
(b) Discuss various threats to information security with examples.
16. (a) Describe different security technologies  
OR  
(b) Explain various electronic payment systems with examples.

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**FACULTY OF SCIENCE**

**B.Sc. (CBCS) V Semester Examination, December 2022 / January 2023**

**Subject: Computer Science**

**Paper (GE) : Information Technologies**

**Time: 3 Hours**

**Max. Marks: 80**

**PART - A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. What is Data Multiflexing?
- ✓ 2. Write short notes on Data Transmission Modes.
3. Write about types of Networking Devices
- ✓ 4. Discuss A I
5. Write about Distributed Networking
- ✓ 6. Discuss Bluetooth
- ✓ 7. What are the functions of Email?
8. Discuss the Cyber Security
9. Discuss the role of ISP
- ✓ 10. Write short note on E Cash
11. Discuss the counter measures to Application Security
- ✓ 12. Discuss about Security Threats

**PART - B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

- ✓ 13. (a) Describe OSI Model with a neat diagram.

**(OR)**

(b) Write about Internet Services. Explain in detail about different types of Internet Connections.

- ✓ 14. (a) Explain peer-to-peer computing in detail.

**(OR)**

(b) Describe Grid and cloud computing in detail.

- ✓ 15. (a) (i) What is a Browser and its importance.

(ii) Explain any two web browsers.

**(OR)**

(b) (i) What is the need of Information Security.

(ii) Discuss different threats to Information System.

- ✓ 16. (a) (i) What is E-Commerce.

(ii) Discuss the security threats to E-Commerce.

**(OR)**

(b) Describe the Data Security consideration and security technologies for Application Security.

**FACULTY OF SCIENCE****B.Sc. V Semester (CBCS) Examination, March 2022****Subject: Computer Science****Paper – V : Programming in Java****Time: 3 Hours****Max. Marks: 80****PART – A****Note: Answer any eight questions.****(8 x 4 = 32 Marks)**

1. Define Constructor and what are types of Constructors?
2. Write short notes on 'static' and 'this' keywords.
3. What is platform independency? Discuss how Java supports platform independency?
4. Differentiate Method overloading and overriding.
5. Explain User-defined Exception with a example program.
6. Write short notes on Command-Line Agruments.
7. Describe Thread Life Cycle.
8. What is Multithreading? What are the ways to create multiple threads in java.
9. What is Byte stream in Java? List some of the Bytestream classes.
10. What are the differences between AWT and Swings?
11. Write short notes on DialogBox.
12. Describe different types of JDBC drivers.

**PART – B****Note: Answer any four questions.****(4 x 12 = 48 Marks)**

13. (i) What is the difference between a Class and Object?  
(ii) Discuss in detail the access specifiers available in java.
14. Explain Constructor Overloading and Method Overloading with an example program.
15. (i) Differentiate between Abstract Class and Interface.  
(ii) Explain super and final keywords.
16. What are Checked and Unchecked Exceptions? Explain the different ways to handle Exceptions.
17. (i) Discuss how to set the priority to threads? What are the different ranges.  
(ii) Write a java program to create two threads and execute simultaneously.
18. Write Java program to read contents of a file using FileInputStream Class.
19. Write a Java Application to create a database table using JDBC.
20. Explain the following layout managers  
(i) Border layout (ii) Grid layout (iii) Flow layout.

FACULTY OF SCIENCE  
B.Sc. III Semester (CBCS) Examination, July 2021

Subject: Computer Science  
Paper: III – Data Structures (DSC)

Time: 2 Hours

Max. Marks: 80

PART – A

Note: Answer any five questions.

(5 x 4 = 20 Marks)

- 1 Explain the attributes of ordered list with examples.
- ~~2~~ What is a stack? Write various applications of stack.
- 3 Demonstrate recursive call with an example.
- 4 Write all the applications of linked list.
- 5 What is binary tree abstract data type?
- ~~6~~ Explain hashing with an example.
- 7 Describe searching process using an array.
- ~~8~~ Write the comparisons of sorting techniques.
- ~~9~~ Define Flowchart. Discuss the different symbols in Flowchart.
- 10 Write short notes on Double-ended queue.
- ~~11~~ Write short notes on Collision Resolution strategies.
- 12 What is a Heap Abstract Data type?

PART – B

Note: Answer any three questions.

(3 x 20 = 60 Marks)

- 13 Write string manipulation instructions. Demonstrate these instructions with examples and algorithms.
- 14 Describe arithmetic expression evaluation with examples.
- 15 Demonstrate and explain circular queue with examples and algorithm.
- 16 What are the advantages of garbage collection? Explain garbage collection algorithms.
- 17 Explain binary tree representation with traversals.
- ~~18~~ Describe Kruskal's algorithm.
- ~~19~~ Explain Binary search algorithm with an example.
- ~~20~~ What is merge sort? Explain with an example and an algorithm.

Code No: E-10422

**FACULTY OF SCIENCE**  
**B.Sc. (CBCS) V - Semester Examination, December 2022 / January 2023**  
**Subject: Computer Science**  
**Paper – V: Programming in Java**

Time: 3 Hours

Max. Marks: 80

**PART – A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. Why is Java known as a platform-independent language?
2. What are the primitive data types in Java?
3. While loop vs do-while loop, Discuss.
4. Define and demonstrate method overriding.
5. Differentiate between interface and abstract class.
6. Explain final keyword with all its usages.
7. What is synchronization and why is it important?
8. What is an Exception? Name some predefined Exceptions.
9. Which package does Scanner class belongs to? List out methods of Scanner class.
10. Write about Graphics class and its methods.
11. Differentiate between AWT and Swing.
12. What is Layout? What are the various Layout Managers in AWT?

**PART – B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. a) Briefly describe various operators available in Java? Demonstrate with program for different types of operators.  
(OR)  
b) Explain in detail all the conditional statements in java.
14. a) How is Inheritance useful in java? What are its types? Write programs to demonstrate any two types of inheritance forms.  
(OR)  
b) Write short note on a) Super keyword. b) Garbage Collection c) String class
15. a) What is a Thread? Explain in detail different ways of creating and using Threads.  
(OR)  
b) Write about Java File Stream class along with its methods
16. a) What is an Event? Write about types of Events and handling them?  
(OR)  
b) Describe the complete life cycle of an applet.

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Code No: F – 15423

**FACULTY OF SCIENCE**  
**B. Sc. (CBCS) V- Semester Examination, December 2023/January 2024**

**Subject: Computer Science**  
**Paper – V: Programming in Java**

**Time: 3 Hours**

**Max. Marks: 80**

**PART – A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. Describe the structure of Java Program.
2. Explain about JVM.
3. Explain the creation and execution of java program.
4. Write about static and this keyword.
5. What is a wrapper class and mention its methods?
6. Write about String class and its methods.
7. Write about Thread Life Cycle.
8. What is thread priority?
9. Write about Scanner class. Give an example program.
10. Write about Graphics class and its methods.
11. Write about AWT Button and Label components.
12. Mention different Layouts in Swings.

**PART – B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. (a) (i) Explain any five Java features.  
(ii) Write about type casting in java with examples.  
(OR)  
(b) Explain various conditional statements in java with relevant examples.
14. (a) Write about constructor overloading and method overloading. Give an example.  
(OR)  
(b) Explain inheritance and different types of inheritance. Write a program which demonstrates single inheritance.
15. (a) What is an Exception? Explain types of Exceptions. Give an example program.  
(OR)  
(b) Write about Input-output streams. Write a program to demonstrate File input Stream Class using Sample.text file.
16. (a) What is Applet? Explain Applet life cycle and its methods.  
(OR)  
(b) Write about Event Handling. Explain about AWT Button and Label components.

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Code No: E-10422

**FACULTY OF SCIENCE**

**B.Sc. (CBCS) V - Semester Examination, December 2022 / January 2023**

**Subject: Computer Science**

**Paper – V: Programming in Java**

**Time: 3 Hours**

**Max. Marks: 80**

**PART – A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. Why is Java known as a platform-independent language?
2. What are the primitive data types in Java?
3. While loop vs do-while loop, Discuss.
4. Define and demonstrate method overriding.
5. Differentiate between interface and abstract class.
6. Explain final keyword with all its usages.
7. What is synchronization and why is it important?
8. What is an Exception? Name some predefined Exceptions.
9. Which package does Scanner class belongs to? List out methods of Scanner class.
10. Write about Graphics class and its methods.
11. Differentiate between AWT and Swing.
12. What is Layout? What are the various Layout Managers in AWT?

**PART – B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. a) Briefly describe various operators available in Java? Demonstrate with program for different types of operators.  
(OR)  
b) Explain in detail all the conditional statements in java.
14. a) How is Inheritance useful in java? What are its types? Write programs to demonstrate any two types of inheritance forms.  
(OR)  
b) Write short note on a) Super keyword. b) Garbage Collection c) String class
15. a) What is a Thread? Explain in detail different ways of creating and using Threads.  
(OR)  
b) Write about Java File Stream class along with its methods
16. a) What is an Event? Write about types of Events and handling them?  
(OR)  
b) Describe the complete life cycle of an applet.

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**FACULTY OF SCIENCE**  
**B.Sc. (CBCS) VI - Semester (Regular / Backlog) Examination, June / July 2023**  
**Subject: Computer Science**  
**Paper- VI : Web Technologies**

Time: 3 Hours

Max. Marks: 80

**PART – A****Note: Answer any eight questions.****(8 x 4 = 32 Marks)**

1. Write about Hyperlinks in HTML?
2. What is an Embedded Style Sheet?
3. Difference between break and continue statements.
4. Short notes on functions
5. Write about onsubmit event?
6. Write about two date functions with meaning and example?
7. Write about XSL Transformations?
8. What is XMLHttpRequest object?
9. How to define a frame in HTML?
10. Write about Relational operators?
11. What is event bubbling in JavaScript?
12. Write about the history of AJAX?

**PART – B****Note: Answer all the questions.****(4 x 12 = 48 Marks)**

13. (a) Define HTML List and explain in detail the types of Lists with a program?  
**(OR)**  
(b) Write the Text, Background and Font properties in CSS with a program?
14. (a) Write in detail about else if statements and while statements with examples?  
**(OR)**  
(b) Write in detail about functions and recursive functions in Javascript with programs?
15. (a) Write about onmouseover, onfocus, onload and onkeypress events with programs?  
**(OR)**  
(b) Write six String and six Math functions in Javascript with example programs?
16. (a) Explain about XML Schema with an example.  
**(OR)**  
(b) Describe a Simple Ajax Application?

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**FACULTY OF COMMERCE**  
**B.Com. (CBCS) VI – Semester Examination, June / July 2023**  
**(Only for Computer Applications Courses)**  
**Subject : (B) Cyber Security**  
**Paper – DSC – 603**

Time: 2 Hours

Max. Marks: 50

**PART – A****Note: Answer any five questions.****(5 x 2 = 10 Marks)**

1. Need for Nodal Agency
2. Ethical Hacking
3. SOAP
4. PGP
5. Disk based Analysis
6. Firewalls
7. Cross Site Scripting
8. Cyberspace and Cyber Forensics

**PART – B****Note: Answer all the questions.****(5 x 8 = 40 Marks)**

9. (a) What is Cyber Security? Explain various types of Cyber threats.  
**(OR)**  
 (b) Write a short note on a) Deception b) Cyber security Audit c) Denial of Services
10. (a) Explain the basic security for HTTP Applications and Services.  
**(OR)**  
 (b) List out various security constraints in Web Applications and Web Servers.
11. (a) What is Intrusion Prevention System (IPS)? Explain any one type of IPS with advantages and limitations.  
**(OR)**  
 (b) What is Intrusion? Write about types of Intrusions.
12. (a) What is Cryptography? Explain various Asymmetric cryptography methods.  
**(OR)**  
 (b) What is VPN? What are the services provided by VPN?
13. (a) Write about Cyber security standards.  
**(OR)**  
 (b) What is Email Scrutinizing? List out the methods to validate E-mail Header information.