

2011000104010001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
INFORMATION SYSTEMS (OLD)

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**
 - b. Name of the Subject : **INFORMATION SYSTEMS (OLD)**
 - c. Subject Code No : **2011000104010001**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. Write to the point.

Seat No:

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Student's Signature

Q.1 Answer the following in short

14

1. Define Information & Knowledge.
2. Explain strategic planning
3. Define batch processing system.
4. What a relationship between TPS and MIS?
5. List out steps to convert Manual Information System to CBIS.
6. What is data collection?
7. Differentiate between batch processing and OLTP.

Q.2 Answer the following in details. (Any Two)

14

1. Explain the characteristics of valuable information.
2. What is information feedback explain in detail?
3. Explain DSS characteristics in details.

Q.3 Answer the following (Any Two) 14

1. Explain output of MIS.
2. Explain business as a system in detail.
3. Explain difference between organizational system and MIS.

Q.4 Write a Short note (Any Two) 14

1. Limitations of DSS.
2. Traditional transaction processing methods
3. Order processing system
4. ERP

Q.5 Do as Directed (Any One) 14

1. Give brief description showing subsystem of HOTEL. Explain how MIS will help you to make decision at various levels. Also mention data files and also mention reports from system.
2. Consider you are designing IS for a central library of a university. Which reports you will like to include making system to MIS system.

2011000104030001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)
JAVA PROGRAMMING LANGUAGE

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**
- b. Name of the Subject : **JAVA PROGRAMMING LANGUAGE**
- c. Subject Code No : **2011000104030001**

2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Answer the following:

10

1. Which of the following is available with java?
 - A. Pointer
 - B. Structure
 - C. Array
 - D. All of this

2. What is the size of int datatype?
 - A. 1 byte
 - B. 2 byte
 - C. 4 byte
 - D. None

3. Which type of variable is shared by all objects of the class?
 - A. Static
 - B. Global
 - C. Instance
 - D. None

4. What is the output of:
StringBuffer s= "Good Morning";
System.out.println(s.capacity());
A. 28 B. 16 C. 12 D. None
5. In which concept, two or more methods share same name but have different parameters?
A. Method overloading B. Method overriding
C. Inheritance D. Method hiding
6. Which of the following is for importing all classes of package B?
A. imports A.B.*; B. imports A.B;
C. import A.B.*; D. import A.B;
7. What is Full form of AWT?
A. Abstract Window Toolkit B. Active Window Toolkit
C. Abstract Web Toolkit D. Active Web Toolkit
8. What is from following used for manually fire the exception?
A. try B. throw C.throws D. finally
9. What is the minimum priority in Thread class?
A. 0 B. 5 C. 1 D. None
10. In which type of linked list, no node contains NULL pointer?
A. Singly linked list B. Doubly linked list
C. Circular linked list D. None

Q.2 Answer the following: (Any Two) 14

- (1) Explain various data types in Java. Also write about type conversion with example.
- (2) Write about properties of Java.
- (3) Explain various uses of super keyword with example.

Q.3 Answer the following: (Any Two) 14

- (1) Explain any seven methods of StringBuffer class with example.
- (2) Explain priorities of thread with example.
- (3) Explain package creation process with example.

Q.4 Answer the following: 18

a) Differentiate the following: (Any Three) 12

1. For loop Vs Do-While loop
2. Compile time polymorphism Vs Run time polymorphism
3. Java Constructors Vs Java Methods
4. Checked Exception Vs Unchecked Exception.

b) Write a program for creating and displaying singly linked list. 6

OR

b) Write a program for creating and displaying singly circular linked list. 6

Q.5 Write short note on the following: (Any Two). 14

1. Interface.
2. Try-Catch
3. Applet

2011000104040001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
.NET PROGRAMMING

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

- 1. Fill up strictly the following details on your answer book**
 - a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**
 - b. Name of the Subject : **.NET PROGRAMMING**
 - c. Subject Code No : **2011000104040001**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Answers the following questions: (Any 7)

14

1. What is Managed Code?
2. Define the .NET Framework Class Library.
3. What is Boxing in VB.NET?
4. Explain option explicit statement in VB.NET.
5. What is the use of a Progress Bar control?
6. Define the term Container Controls.
7. What is an interface in VB.NET?
8. How can you create abstract class in VB.NET?
9. List properties of Data Adapter in ADO.NET?
10. What is a Command Builder?

Q.2 Answer the following questions: (Any 2)

14

1. Explain the role of Common Language Runtime in .NET Framework.
2. Describe the concept of MSIL and its importance in .NET.
3. Discuss sub routine and functions in VB.NET with examples.

Q.3 Answer the following questions: (Any 2) 14

1. How are Arrays and Collections used in VB.NET?
2. Describe the use of Rich Text Box control.
3. Explain the purpose and usage of Font and Color Dialogue Boxes in VB.NET.

Q.4 Answer the following questions: (Any 2) 14

1. Explain structured exception handling in VB.NET?
2. Explain the concept of inheritance with an example in VB.NET.
3. Explain access specifiers in VB.NET.

Q.5 Answer the following questions: (Any 2) 14

1. Explain the ADO.NET Object Model and its components.
2. Write a note on data reader object.
3. Explain Data Set in ADO.NET?

2111000104020002
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
INTERNET OF THINGS (IOT)

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**
 - b. Name of the Subject : **INTERNET OF THINGS (IOT)**
 - c. Subject Code No : **2111000104020002**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.
 5. Write to the point.

Seat No:

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Student's Signature

Q.1 Choose a correct option.

10

1. Which of the following is better choice to address a smart IoT device?
 - a) IPv4
 - b) URL
 - c) IPv6
 - d) email address

2. Which of the following protocol uses publisher, subscriber and broker?
 - a) MQTT
 - b) CoAP
 - c) HTTP
 - d) none of these

3. Which of the following will provide an input to an IoT application?
 - a) Sensor
 - b) Actuator
 - c) Both Sensor and Actuator
 - d) None of the these

4. Which of the following sensor detects motion of a human?
 - a) DHT22
 - b) MQ-4
 - c) Ultrasonic
 - d) PIR

5. Which of the following is not a goal of network security?
- a) confidentiality
 - b) availability
 - c) integrity
 - d) none of these
6. The CoAP is _____ layer protocol.
- a) application
 - b) network
 - c) transport
 - d) physical
7. IPv6 protocol uses _____ bit of address.
- a) 128
 - b) 6
 - c) 32
 - d) 4
8. Which type of sensor produces continuous varying output values?
- a) analog
 - b) digital
 - c) both of these
 - d) none of these
9. Who introduce the term IoT first time?
- a) Kevin Ashton
 - b) Ken Thompson
 - c) Dennis Ritchie
 - d) Tim Berners-Lee
10. Which of the following is an odd one out?
- a) 2G
 - b) 4G
 - c) 3G
 - d) WiFi

Q.2 Answer the following in detail. (Any Three)

21

1. Write a note on IoT security.
2. Explain embedded system with its characteristics.
3. List and explain different types of actuators in brief.
4. Explain general block diagram of an IoT device.

Q.3 Do as directed. (Any Three) 18

1. Explain the role of Big Data Analytics in IoT application with an example.
2. Explain the CoAP and AMQP protocols in brief.
3. Write a detail note on Arduino.
4. Explain any two communication model in detail.

Q.4 Answer the following in detail. (Any Two) 12

1. Write a detail note on M2M.
2. Explain an IoT application in detail that can use Raspberry Pi.
3. Write a note on sensors types.

Q.5 Write a case study on any one of Smart Home Application 9

2111000104050002
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
WEB DESIGNING-II (OLD) PAPER-405-1

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

a. Name of the Examination: **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**

b. Name of the Subject: **WEB DESIGNING-II (OLD) PAPER-405-1**

c. Subject Code No: **2111000104050002**

2. Sketch neat and labelled diagram wherever necessary.

3. Figures to the right indicate full marks of the question.

4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 [A] Answer the following.

10

- Which of the following is the correct statements for adding XML element?
a) `<booklist>.... </bookList>` b) `<bookList>.... </booklist>`
c) `<bookList>.... </bookList>` d) `<bookList>.... </BookList>`
- What is the correct syntax of defining the XML version?
a) `<xml version="version_no" />` b) `<?xml version="version_no" />`
c) `<?xml version="version_no" ?>` d) None of the above
- Which of the following jQuery DOM method is used to set or return the content of selected elements (including HTML markup)?
a) `content()` b) `text()`
c) `val()` d) `html()`

4. Which jQuery is used to hide the current element?
- a) `$(this).hideelement()` b) `$(this).hide('true')`
c) `$(this).hide(0)` d) `$(this).hide()`
5. Which is the correct symbol to insert a comment in JSON?
- a) `//` b) JSON doesn't support the comments
c) `\\` d) `<!--...-->`
6. Which function is used to convert a JavaScript object into a string?
- a) `JSON.string()` b) `JSON.ToString()`
c) `JSON.stringify()` d) All of the above
7. Which formats are supported by Ajax to send and receive information?
- a) JSON,XML,HTML,SQL,MySQL b) JSON,XML,HTML,NoSQL
c) JSON,XML,HTML, and Text files d) JSON,JAVA,HTML, and XML
8. What is the correct syntax to create an XMLHttpRequest object?
- a) `XMLHttpRequest() variable` b) `XMLHttpRequest() variable;`
c) `variable= new XMLHttpRequest()` d) `variable= new XMLHttpRequest();`
9. Which of the following method of fs module is used to create file?
- a) `fs.writeFile()` b) `fs.appendFile()`
c) `fs.open()` d) All of the Above
10. Which of the following module splits up a web address into readable parts?
- a) FS b) HTTP
c) URL d) NPM

[B] Answer the following. [Any Five]

10

1. What is JQuery? Which jQuery method is used to set the text content of an element?
2. What is XML? Write XML declaration syntax.
3. What do you mean by Node.JS? How to run Node.JS application.
4. What can JSON format be used for?
5. Which function is used to convert a JavaScript Object to JSON? Write syntax for the same.
6. What are the modules in Node.js? what is the use of require () function?
7. Write the full form AJAX. What are the real Web Applications of AJAX currently running in the market?

Q.2 Attempt the following. [Any Two]

14

1. Explain XML declaration rules. Write XML document structure in detail with example.
2. Explain jQuery events in detail with its general syntax and example.
3. What is JSON? Write JSON array in detail.

Q.3 Attempt the following. [Any Two]

14

1. Write a note on basic data types in JSON with its general syntax and example. Write a code for the same.
2. Explain insert jQuery Manipulation methods in detail.
3. Explain XMLHttpRequest object of Ajax in detail with its properties and methods.

Q.4 Attempt the following. [Any Two]

14

1. What are modules in Node.JS? Explain different module used in Node.JS.
2. Explain File system module of Node.JS in detail with an example.
3. Write the difference between synchronous and asynchronous web application model with its diagram.

Q.5 Write a short note on the following. [Any Two]

8

1. AJAX architecture with its steps and diagram
2. Similarities and differences among JSON and XML
3. jQuery Effects

2111000104050003
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
MOBILE APPLICATION DEVELOPMENT-II

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (FOURTH SEMESTER)**
 - b. Name of the Subject : **MOBILE APPLICATION DEVELOPMENT-II**
 - c. Subject Code No : **2111000104050003**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.
 5. Mention your options clearly.

Seat No:

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Student's Signature

Q.1 Answer the following Questions in short. (Any seven)

14

1. What is the purpose of Toast?
2. What is Scaffold Widget?
3. Write the purpose of pubspec.yaml file.
4. What is the use of Array Adapter?
5. Explain Short-Circuit Operator.
6. Explain label in Dart.
7. What is dart2js?
8. List out possible ScreenOrientation in Android Studio.
9. What is DartPad?
10. Give four names of Visible widget.

Q.2 Answer the following Questions in details. (Any Two) 14

1. What is flutter? Discuss features of Flutter.
2. What is the purpose of Checkbox & RadioButton? How to create dynamic radio button in android? Explain with example.
3. Explain AutoCompleteTextview and TextWatcher in detail.

Q.3 Answer the following Questions in details. (Any Two) 14

1. Explain Flutter Toast in detail.
2. Discuss dart function with example.
3. Explain DatePicker & TimePicker.

Q.4 Write a short note on (Any Two) 14

1. ProgressBar & AlertDialog in Flutter.
2. Iterative statements of Dart.
3. SearchView using ListView.

Q.5 Write a short note on (Any Two) 14

1. Visible Widgets.
2. Multi-child widgets.
3. AndroidManifest file.
