

2011000104010001
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
401-INFORMATION SYSTEMS

[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: **401- INFORMATION SYSTEMS**
 - 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
6. Provide examples and diagrams wherever appropriate / necessary

Seat No:

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Student's Signature

Q.1 Answer the following:

14

1. An _____ is a set of processes and procedures to transform data into information and knowledge.
 - a) Database System
 - b) Information System
 - c) Knowledge System
 - d) Operating System
2. A _____ system has no interaction with its environment.
 - a) Probabilistic System
 - b) Open System
 - c) Deterministic System
 - d) Close System
3. Full form of EDI
 - a) Electronic Data Interchange
 - b) Electronic Data Information
 - c) Electronic Development Interchange
 - d) Electronic Development Information
4. The basic component(s) of DSS is (are)
 - a) Database
 - b) Model base
 - c) DSS software system
 - d) All of the above

5. GDSS is the short form of
- Group Decision Support System
 - Group Discussion Support System
 - Group Decision Service System
 - Group Discussion Support Source
6. It is the process of determine problem data required for a given result.
- Simulation
 - What-if Analysis
 - Goal Seek
 - None of the above
7. Which Approach is works based on "Rule of Thumb".
- An Optimization approach
 - Satisfying approach
 - Heuristics approach
 - None of the above
8. System performance standard can be measured in
- Efficiency
 - Effectiveness
 - Both a & b
 - None
9. Tactical information is required by
- Middle managers
 - Line managers
 - Top managers
 - All workers
10. The art of getting done through people, with the people
- Management information system
 - Management
 - System
 - Entity
11. What is at the heart of any ERP system?
- Information
 - Employees
 - Customers
 - Database
12. In an integrated data model, what gives a snapshot of the organisation at any given time?
- ERP
 - Database
 - Management
 - MIS
13. OLAP Stands for?
- On-Line Analytical Processing
 - On-Line Account Processing
 - On-Line Arithmetic Processing
 - On-Line Application Processing

14. A _____ is a set of information which processes the data transaction in database system that monitors transaction programs.
- Operating System
 - Decision Support System
 - Transaction Processing System
 - None of the mentioned above

Q.2 Answer the following (Any two). 14

1. Explain components of DSS
2. Explain development process of MIS.
3. Explain objectives of TPS.
4. Explain product flow and information flow.

Q.3 Answer the following (Any two). 14

1. Explain characteristics of MIS.
2. Characteristics of valuable Information.
3. Compare MIS and DSS.

Q.4 Answer the following (Any two). 14

1. Explain Purchasing system.
2. Explain ERP in details.
3. Explain TPS Activities

Q.5 Do as directed. (Any one) 14

1. Give brief description of subsystems of Online Admission Process. Explain how information will help you to take decision at various levels. Maintain MIS Reports that can be generated.
2. Give brief description of subsystems of Hospital Management System. Explain how information will help you to take decision at various levels. Maintain MIS Reports that can be generated.

2111000104020002
EXAMINATION OCTOBER 2024 (ATKT EXAM)
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.

Seat No:

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Student's Signature

Q.1 Attempt All questions

14

1. What does SaaS stands for?
 - A. System as a service
 - B. Software as a Services
 - C. Science as a Service
 - D. Server as a Software
2. _____ Protocol is meant for constrained environment with constrained devices and constrained network.
 - A. MQTT
 - B. Web Socket
 - C. CoAP
 - D. AMQP
3. The smallest change which a sensor can detect is termed as
 - A. Accuracy
 - B. Precision
 - C. Resolution
 - D. Scale
4. Full form of AMQP protocol is
 - A. Alternate Message Queuing Protocol
 - B. Advance Message Queuing Protocol
 - C. Alternate Minimum Queuing Protocol
 - D. Alternate maximum Queuing Protocol

5. The process of identifying a person before giving an access?
 - A. Authentication
 - B. Encryption
 - C. Auditing
 - D. Access control
6. An IoT network is a collection of devices.
 - A. Signal
 - B. Machine to Machine
 - C. Interconnected
 - D. Network to Network
7. _____ Uses certain protocols to aid sensors in connecting with real time machine-to-machine network.
 - A. real time analytics
 - B. data collection
 - C. device integration
 - D. real time collection
8. How many pins are present in the LM45 Sensor?
 - A. 1
 - B. 3
 - C. 2
 - D. 4
9. COAP protocols in IoT is protocols of _____ layer
 - A. Transport
 - B. Application
 - C. Network and Internet
 - D. Link
10. Which type of actuator is crankshaft?
 - A. Hydraulic
 - B. Numeric
 - C. Mechanical
 - D. Thermal
11. Which of the following is called minicomputer?
 - A. Arduino
 - B. Raspberry pi
 - C. None of the above
 - D. Both
12. Which one uses a boot loader on a chip?
 - A. Arduino
 - B. Raspberry pi
 - C. Both A and B
 - D. None of the above
13. AAA stands for?
 - A. Authentication, Authenticity, Audit
 - B. Authentication, Authorization, Audit
 - C. Authentication, Authenticity, Auditing
 - D. Authentication, Auther, Audit
14. MQTT protocols in IoT is protocols of _____ layer
 - A. Transport
 - B. Application
 - C. Network and Internet
 - D. Link

Q.2 Answer in detail. (Any Three)

18

1. What is an IoT? Explain Characteristics of IoT.
2. Explain Application Layer and link Layer Protocols.
3. Discuss any two communication model used in IoT.
4. Differentiate between Sensors and Actuators in details.

Q.3 Answer the following (Any two).

14

1. What is M2M? Explain difference between IoT and M2M.
2. List out types of Big data analytics. Explain Diagnostics and predictive analytics.
3. Explain components of Arduino.

Q.4 Answer the following (Any two).

14

1. What is Sensor? Explain any 3 types of Sensors.
2. Explain AAA in detail.
3. Explain characteristics of an Embedded System.

Q.5 Do as directed(Any one)

10

1. Write a case study on Smart Parking Application.
2. Write a case study on any one of Smart Home Application.

2011000104030001
EXAMINATION OCTOBER 2024 (ATKT EXAM)
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 keyword is used for preventing Method Overriding?
 - A. static
 - B. abstract
 - C. final
 - D. None
- 2) Which of this method is used to find out that a thread is still running or not?
 - A. isActive()
 - B. isLive()
 - C. isRun()
 - D. None
- 3) Binding of data and function together is known as:
 - A. Abstraction
 - B. Encapsulation
 - C. Polymorphism
 - D. Inheritance
- 4) Which of the following is true for the String and StringBuffer class?
 - A. Both classes are immutable
 - B. String class is immutable and StringBuffer class is mutable.
 - C. String class is mutable and StringBuffer class is immutable.
 - D. Both classes are mutable.

- 5) Explicit conversion is also known as:
 A. Widening B. Narrowing
 C. Implicit D. System
- 6) What is constructor in Java?
 A. It is object of a code. B. It is recursive block of code.
 C. It is block of code like method. D. All
- 7) All the methods of interface are:
 A. abstract B. final
 C. static D. private
- 8) When applet is loaded which method is called?
 A. load() B. start()
 C. init() D. call()
- 9) What is full form of AWT?
 A. Allow Window Toolkit B. Abstract Window Tool
 C. Abstract Window Toolkit D. Abstract Window Text
- 10) If you make class as _____ then it can't be inherited.
 A. final B. abstract
 C. static D. None

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

- 1) What is java bytecode? Also compare Java with C++.
- 2) Explain java keywords and java variables with its types.
- 3) Explain singly circular linked list create, traverse and insert operation.

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

- 1) Explain class structure in java with example.
- 2) Explain finally keyword with example.
- 3) What is thread? Write about Thread class methods. Also write its benefits.

Q.4 Answer the following: 18

(a) Differentiate the following: (Any Three) 12

- 1) While loop Vs do-while loop
- 2) this Vs super
- 3) package Vs interface
- 4) Applet Vs Application

(b) Write a program for generating exception for if the inputted number is not in the given range. 6

OR

(b) Write an applet program for display triangle within circle. Also displays "Hello" inside the triangle. 6

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

- 1) Java Platform Independence.
- 2) Java datatypes.
- 3) Thread Life Cycle.

2011000104040001
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
404.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: **404.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 Answer the following questions (Any Seven) 14

- 1 What is CTS?
- 2 Define: Managed code.
- 3 How to resize an Array?
- 4 What is unboxing?
- 5 List out the container controls.
- 6 List properties and methods of ProgressBar control.
- 7 What is the use of MustOverride keyword?
- 8 What is the use of DataAdapter?

Q.2 Answer in detail. (Any two) 14

1. Write a detailed note on .net framework.
2. Explain .net framework class library.
3. Explain type conversion functions using syntax and example.

Q.3 Answer the following (Any Two) 14

1. Write a note on option statements.
2. What is Collection? How to create it and use it?
3. What is exception? List exception handling techniques. Explain any one of them in detail.

Q.4 Answer the following (Any Two)

14

1. Explain checkbox and radio button control with example.
2. Explain Inheritance.
3. Explain constructor and destructor in .NET.

Q.5 Do as directed. (Any Two)

14

1. Explain ADO.NET object model.
2. Differentiate between Dataset and Data Reader. Explain Data Reader with its properties and methods.
3. Explain the concept of disconnected data architecture in ADO.NET.

2111000104050003
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
405-02-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: **405-02-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.

Seat No:

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Student's Signature

Q.1 Answer the following question [any seven] 14

1. Define Android Manifest file. What is its significance?
2. What is TextField widget in flutter?
3. What is the use of ScrollView?
4. Discuss screen orientation in android.
5. What is dex? Where it is use?
6. How we can validate Flutter input? What is Flutter Form?
7. How we can display tooltip on button?
8. What is the significance of dart2js file?

Q.2 [A] Explain Dart iterative statement. 7
[B] Explain row, column and centre widget with example. 7

OR

[B] How to create custom Check Box in android. 7

Q.3 Explain the following [Any 2] 14

- [A] Explain Charts in Flutter with example
- [B] Differentiate stateless and stateful widget.
- [C] How to display List of data in Flutter.

Q.4 [A] Explain how we can create user defined function in dart with different types of parameters. 7

OR

- [A] What is Scaffold? Explain in detail with example. 7
- [B] Explain progress bar of android with example. 7

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

14

- A. Slider in Flutter
- B. List view in Android.
- C. Dalvik Virtual Machine.

2111000104050002
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF COMPUTER APPLICATIONS
(FOURTH SEMESTER)
WEB DESIGNING-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: **WEB DESIGNING-II**
 - 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

1. XML Stands for _____
 - a) Extra Marking Language
 - b) Extensible Markup Language
 - c) Example Markup Language
 - d) X-Markup Language

2. _____ is a case sensitive language whereas _____ is not a case sensitive language.
 - a) HTML, XML
 - b) XML, HTML
 - c) None of these
 - d) Both of these

3. Which feature(s) jQuery Contains?
 - a) CSS manipulation
 - b) AJAX
 - c) HTML/DOM manipulation
 - d) All of the Above

4. Which jQuery is used to hide the current element?
 - a) `$(this).hideelement()`
 - b) `$(this).hide()`
 - c) `$(this).hide('true')`
 - d) `$(this).hide(0)`

5. Which is the correct symbol to insert a comment in JSON?

- a) //
- b) /* */
- c) <!--.....-->
- d) JSON doesn't support the comments.

6. What is the MIME type for JSON text?

- a) application/json
- b) xml/json
- c) application/jsn
- d) xml/jsn

7. Ajax sends data to a web server _____

- a) Before loading the page
- b) In the background
- c) with reloading the page
- d) All of the above

8. Which formats are supported by Ajax to send and receive information?

- a) JSON, XML, SQL, MYSQL
- b) JSON, XML, HTML and Text Files
- c) JSON, XML, HTML, NoSQL and Oracle
- d) JAVA, JSON, XML, Oracle and Text files

9. Which of the following is the core module of Node JS?

- a) MongoDB
- b) Express
- c) NPM
- d) package.json

10. Which of the following is not the built-in module?

- a) http
- b) path
- c) fs
- d) fsread

10

[B] Answer the following. [Any Five]

1. What is JQuery? List out JQuery insert methods.
2. Write difference between JSON and XML.
3. What do you mean by Node.js? How to run Node.js application.
4. How do you convert JSON text in to JavaScript Object?
5. List out any four features of AJAX.
6. State the difference between text () method and attr () method in JQuery.
7. Explain show and hide effect in jQuery with its general syntax and example.

Q.2 Attempt the following. [Any Two]

14

1. What is XML? Write rules of XML declaration with example.
2. Write a note on effects of jQuery.
3. What is JSON? Write features of JSON.

Q.3 Attempt the following. [Any Two]

14

1. Explain JSON array and array of objects.
2. What is the difference between Synchronous and Asynchronous web application.
3. What is AJAX? Write features of AJAX.

Q.4 Attempt the following. [Any Two]

14

1. Explain XMLHttpRequest technology in detail with its properties and methods.
2. What are modules in Node.js? Explain different module used in Node.js?
3. Explain different module used in Node.js.

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

8

1. Working of AJAX
2. jQuery selector
3. Insert Method of jQuery
