

26/12/2023

Printing Pages :2

Paper Code: MCA-303-A/DCA-104-A

A SVSU:2023-24/R)

Enrollment No.

Program Name: MCA

IInd Year IIIrd Semester / Examination

Subject Name: Cloud Computing

Subject Code: MCA-303-A/DCA-104A

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

I Which one of the following is Cloud Platform by Amazon?

- (a) Azure (b) AWS (c) Cloudera (d) All of the Mentioned

II Who is the father of cloud computing?

- (a) Sharon (b) Edgar Frank Codd
(c) J.C.R. Licklider (d) Charles Bachman

III In the Planning Phase, Which of the following is the correct step for performing the analysis?

- (a) Cloud Computing Value Proposition
(d) Cloud Computing Strategy Planning
(c) Both A and B
(d) Business Architecture Development

IV Which of the following is not a type of cloud server?

- (a) Public Cloud Servers (b) Private Cloud Servers
(c) Dedicated Cloud Servers (d) Merged Cloud Servers

V Which one of the following refers to the non-functional requirements like disaster recovery, security, reliability, etc.

- (a) Service Development (b) Quality of service
(c) Plan Development (d) Technical Service

VI Which one of the following is related to the services provided by Cloud?

- (a) Sourcing (b) Ownership (c) Reliability (d) PaaS

VII How many phases are present in Cloud Computing Planning?

- (a) 2 (b) 3 (c) 4 (d) 5

VIII Which of the following are the features of cloud computing?

- (a) Security (b) Availability
(c) Large Network Access (d) All of the mentioned

IX Which of the following is a type of cloud computing service?

- (a) Service-as-a-Software (SaaS) (b) Software-and-a-Server (SaaS)
(c) Software-as-a-Service (SaaS) (d) Software-as-a-Server (SaaS)

- X The Face.com and windows Azure are examples of which of the following?
(a) IaaS (b) PasS (c) SaaS (d) Both a and b
- XI Which of the following provides the Graphic User Interface (GUI) for interaction with the cloud?
(a) Client (b) Client Infrastructure
(c) Application (d) Server
- XII Which of the following is the application of cloud computing?
(a) Adobe (b) Paypal
(c) Google G Suite (d) All of the above
- XIII Which one of the following can be considered as the most complete cloud computing service model?
(a) PaaS (b) IaaS (c) CaaS (d) SaaS
- XIV Which of the following is an example of the cloud?
(a) Amazon Web Services (AWS)
(b) Dropbox (c) Cisco WebEx (d) All of the above
- XV In SaaS, the used open-source software are also known as ____
(a) Closed (b) Free (c) Open (d) All of the mentioned

2. Answer in long (any three) [10×3=30]

- I What is cloud computing? Write down the characteristics of cloud computing.
- II Define and explain the cloud computing architecture.
- III What is difference between SPI Vs. Traditional Model.
- IV Write down the Cloud Computing Application and Explain the Cloud Computing Application also.

3. Answer in short (any five) [5×5=25]

- I What is Cloud Computing?
- II What is client infrastructure?
- III What is Location independent in cloud computing?
- IV What is Rapid Elasticity in Cloud Computing?
- V What is SPI Framework?
- VI What is Rackspace?
- VII What are Economics benefits of SaaS?

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Paper Code: MCA-301 C (SVSU:2023-24/R)

Enrollment No.														
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MCA

III SEMESTER/ II YEAR EXAMINATION

Subject Code- MCA-301

INTERNET & JAVA PROGRAMMING

[Time : 3:00 Hours]

[Max. Marks : 70]

Note : 1. Attempt all the questions as per given instructions.

I. Multiple Choice Questions (MCQ)**[1x15= 15]**

- Pointer variable is denoted by?
 - +
 - *
 -
 - &&
- Which event is generated when a user clicks a button in AWT?
 - MouseEvent
 - ActionListener
 - KeyEvent
 - WindowEvent
- When an array is passed to method, what does the method receive?
 - The reference of the array
 - A copy of the array
 - Length of the array
 - Copy of first element
- Which of these ways used to communicate from an applet to servlet?
 - RMI Communication
 - HTTP Communication
 - Socket Communication
 - All mentioned above
- Identify the output of the following program.

```
String str = "abcde";
System.out.println(str.substring(1,3));
```

 - Abc
 - Bc
 - Bcd
 - cd
- Which of the following is not a component in AWT?
 - Button
 - Check Box
 - Table
 - Text Area
- Which of these is an incorrect Statement?
 - It is necessary to use new operator to initialize an array
 - Array can be initialized using comma separated expressions surrounded by curly braces.
 - Array can be initialized when they are declared.
 - None of the mentioned
- Who invented Java Programming?
 - Guido van Rossum
 - James Gosling
 - Dennis Ritchie
 - Bjarne Stroustrup
- Which of these is necessary to specify at time of array initialization?
 - Row
 - Column
 - Both a & b
 - None of the Mentioned
- Which of the following is advantage of using JDBC connection pool?
 - Slow performance
 - Using more memory
 - Using less memory
 - Better performance
- Which of the following is method of JDBC batch process?
 - setBatch()
 - deleteBatch()
 - removeBatch()
 - addBatch()

P.T.O.

12. Which of these operators is used to allocate memory to array variable in Java?
a. Malloc b. Alloc c. New d. New malloc
13. What does AWT stand for in Java?
a. Abstract window toolkit b. Advanced window technology
c. Application Widget toolkit d. Automatic Window Tool
14. Which Package provides AWT classes in Java?
a. java.awt b. java.swing c. java.io d. java.net
15. Which of the following is not a JDBC connection isolation levels?
a. TRANSACTION_NONE
b. TRANSACTION_READ_COMMITTED
c. TRANSACTION_REPEATABLE_READ
d. TRANSACTION_NONREPEATABLE_READ

II. Long Question: Answer Any Three

[10x3=30]

1. Write a program to display Menu and menu bar with the help of java AWT.
2. Write a program to display AWT calculator. Which is perform (addition/subtraction/multiplication/divide) operation with the help of button, label & Textfield.
3. What is AWT? Write a program to display choice and textarea.
4. What is the life-cycle of a servlet? Explain it

III. Short Question: Answer Any Five

[5x5=25]

1. What is differences between structure programming language and object oriented programming language?
2. What is String? Write the syntax of String.
3. Write a program to perform multiplication of two array.
4. Write a program to take the value by user and display as output.
5. Write a program to display a Button(Reset).
6. What is JSP? Explain it
7. What is Loop? Explain all type of Loop with syntax and along with suitable example.
8. What is JDBC? Explain it

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Paper Code: MCA-304-C

C

(SVSU:2023-24/R)

Enrollment No.

MCA

II YEAR III SEMESTER/ EXAMINATION

Subject Name: INTERNET OF THINGS

[Time : 3:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

I. Multiple Choice Questions(MCQ)

[1x15= 15]

1. Which one of the following is not an IoT device?

- a. Amazon echo voice controller b. Google Home
c. Nest Smoke Alarm d. None of these

2. Which of the following is not an application of IoT?

- a. Smart Grid b. Arduino c. Smart City d. Wearable

3. What is the real example of a smart grid device in IoT?

- a. Television b. Smart Speaker c. Smart Meters d. Mobile phone

4. What is the role of Big Data in IoT's Smart Grid architecture?

- a. Locked the data b. Store data
c. None of the these d. Filter the data

5. What is the Arduino UNO?

- a. Hardware device b. Network c. Protocol d. Hardware device

6. Empowers IoT by bringing together everyday objects

- a. Intelligence b. Connectivity c. Dynamic nature d. Enormous Scale

7. Who coined the term "Internet of Things"?

- a. Kevin Aston b. John Wright c. Edward Jameson d. George Garton

8. Which of the following is not an IOT platform?

- a. Amazon Web Services b. Microsoft Azure
c. Salesforce d. Flipkart

9. Which of the following is not an application of IoT?

- a. BMP280 b. Smart home c. Smart city d. Self-driven cars

10. How many numbers of the element in the open IoT architecture?

- a. Five elements b. Six elements
c. Seven elements d. Three element

11. Which of the following is not a fundamental component of an IoT system?

- a. Sensors b. Connectivity and data processing
c. User interface d. Transformer

12. Which of the following IoT networks has a very short range?

- a. LPWAN b. Sig Fox
c. Short-range Wireless Network d. Short network

13. Which of the following layers provides end-to-end communication in IoT?

- a. Data link layer b. Transport layer
- c. Session layer d. Logical layer

14. Which of the following is the way in which an IoT device is associated with data?

- a. Cloud b. Automata c. Network d. Internet

15. What is the role of cloud in smart grid architecture of IOT?

- a. Security b. Collect data c. Manage data d. Store data

II. Long Question: Answer Any Three [10x3=30]

1. What is the need of Network? And Explain in detail the LAN and WAN.
2. Explain network architectures star, mesh and tree.
3. Explain in detail access control and message integrity of Internet of Things.
4. Write applications of Internet of Things for e-health body area network.

III. Short Question: Answer Any Five [5x5=25]

1. What is the Internet of things (IOT)? How its work?
2. What are the fundamental components of IOT?
3. Explain internet of things with its components?
4. Explain IOT smart X application?
5. List out the disadvantages of M2M communication.
6. Difference between Web of Things versus Internet of Things.
7. Explain Data visualization and its importance in IoT.

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Paper Code: MSC-ZOO-306

B (SVSU:2023-24/R)

Enrollment No.

M.Sc. Zoology

2ND YEAR IIIrd SEMESTER / EXAMINATION
FISH PHYSIOLOGY

[Time: 3:00 Hours]

[Max. Marks: 70]

I Long Question: Answer Any Three

[10×3=30]

1. Describe the electric stimuli in fish.
2. Discuss the acid base balance in fish.
3. Describe the fertilization and development of fish.
4. Give an account of stress physiology in fish.
5. Describe the endocrine glands in fish.

II. Short Question: Answer any Five

[5×5=25]

1. Explain the buoyancy.
2. Discuss the swimming modes.
3. What is sensory physiology?
4. What is immunity?
5. Discuss the photoreception.
6. What is aerial respiration?
7. What is metabolism?
8. What is pathogen?
9. Discuss the gas exchange.
10. What is aquatic respiration?

III. Objectives Question: Answer All Question

[15×1=15]

1. Swim bladder is present in
 a) Scoliodon b) Labeo c) Chimaera d) Trygon
2. 3. Heart of fishes is _____ chambered
 a) 1 b) 2
 c) 3 d) 4
3. Number of cranial nerves in fishes are
 a) 10 b) 11
 c) 12 d) 13
4. Migration in fishes is induced by which gland
 a) Parathyroid b) Thyroid
 c) Adrenal d) Pituitary

5. Which cells are responsible for producing antibodies in fishes
 - a) Plasma B-cells b) T-cells
 - c) Mast cells d) None of these
6. Humoral immunity is mediated by
 - a) B-cells b) Macrophages
 - c) Both a and b d) phagocytes
7. Which of the following fish have an electric organ?
 - a) Pristis b) Torpedo c) Scoliodon d) Rhincodon
8. Enzyme responsible for light production in fishes is
 - a) Amylase b) Luciferase
 - c) Pepsin d) Trypsin
9. Organ responsible for the response to change in external pressure is
 - a) Pit organs b) Ampullae of Lorenzini
 - c) Vesicles of Savi d) Mormyromasts
10. Spawning can be induced in fishes by injecting which hormone
 - a) Thyroid b) Parathyroid
 - c) Pituitary d) Adrenalin
11. Which of the following fishes is viviparous
 - a) Eagle ray b) Hammer headed sharks
 - c) Chimaeras d) Sting ray
12. In which of the following swim bladder is absent
 - a) Cattle fish b) Bony fish c) Silver fish d) Cartilaginous fish
13. Osmoregulation in fishes is controlled by
 - a) Vasopressin b) Oxytocin
 - c) Prolactin d) ACTH
14. Fishes has
 - a) Renal portal system b) Hepatic portal system
 - c) Both d) None
15. Vesicles of Savi are innervated by
 - a) V b) VI
 - c) VII d) VIII

Printing Pages :1
Paper Code: MCA-302

A SVSU:2023-24/R)

Enrollment No.

MCA

III SEMESTER/ II YEAR EXAMINATION

Subject Name: Programming in Python- Subject Code- MCA-302

[Time : 3:00 Hours]

[Max. Marks : 70]

Note: Attempt all the questions as per given instructions.

- I. Multiple Choice Questions(MCQ)** [1×15=15]
- In which year was the Python language developed?
(a) 1995 (b) 1972 (c) 1981 (d) 1989
 - In which language is Python written?
(a) English (b) PHP (c) C (d) All of the mentioned
 - What do we use to define a block of code in Python language?
(a) Key (b) Brackets (c) Indentation (d) None of these
 - Amongst which of the following is / are the logical operators in Python?
A) AND B) OR C) NOT D) All of the Above
 - What is the method inside the class in python language?
(a) Object (b) Function (c) Attribute (d) Argument
 - All keywords in Python are in _____?
(a) Capitalized (b) Lower case (c) UPPER CASE (d) None of the mentioned
 - Which of the following is used to define a block of code in Python language?
(a) Indentation (b) Key (c) Brackets (d) All of the mentioned
 - Which keyword is used for function in Python language?
(a) Function (b) Def (c) Fun (d) Define
 - Which of the following character is used to give single-line comments in Python?
(a) // (b) # (c) ! (d) /*
 - What does pip stand for python?
(a) unlimited length
(b) all private members must have leading and trailing underscores
(c) Preferred Installer Program (d) none of the mentioned
 - Which of these is the definition for packages in Python?
(a) A set of main modules (b) A folder of python modules
(c) A number of files containing Python definitions and statements
(d) A set of programs making use of Python modules
 - Which one of the following is not a keyword in Python language?
(a) Pass (b) eval (c) assert (d) nonlocal
 - Which module in the python standard library parses options received from the command line?
(a) Getarg (b) getopt (c) main (d) OS
 - What arithmetic operators cannot be used with strings in Python?
(a) * (b) - (c) + (d) All of the mentioned
 - Which of the following statements is used to create an empty set in Python?
(a) {} (b) [] (c) {} (d) Set ()

II. Long Question : Answer Any Three

[10×3=30]

- Write Program to calculate the area of triangle using python.
- What are the control statements in python? Explain in details.
- Write a brief note on operators in python?
- Write a brief note on the following terms:
(i) Lists (ii) Directory in python

III. Short Question: Answer any Five

[5×5=25]

- What do you mean by python libraries? Explain numpy in details.
- What do you mean by python functions?
- Write a brief note on python array with an example.
- Explain the advantages of matplotlib python library?
- Write a program to check whether an entered number is even or oddtake input from keyboard?
- What is Python? List some popular applications of Python in the world of technology?
- What is the difference between a Set and Dictionary?
- What is a lambda function?