

Seat No.	
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M.C.A. (PART - II) (Semester - III) (CBCS)**Examination, December-2024****JAVA PROGRAMMING****Sub. Code : 83603****Day and Date : Monday, 16/12/2024****Total Marks : 70****Time : 10:30 a.m. to 01:30 p.m.****Instructions : 1) Q.1 and Q.7 are compulsory.**

- 2) Attempt any three (3) questions from Q.2 to Q.6
- 3) Figures to right indicate full marks.

Q1) Multiple Choice Questions.**[08]**

- 1) Which of these statement is incorrect?
 - A) Every class must contain a main() method
 - B) There can be only one main() method in a program
 - C) main() method must be made public
 - D) All of these
- 2) Final keyword in java is used with _____.
 - A) class
 - B) data members
 - C) methods
 - D) All of these
- 3) Which of the following operators is used to generate instance of an exception which can be thrown using throw?
 - A) thrown
 - B) alloc
 - C) malloc
 - D) new
- 4) Which of these class is used to read characters in a file?
 - A) FileReader
 - B) FileWriter
 - C) FilterReader
 - D) InputSteamReader

- 5) Which of these is a super class of wrappers Long, Character and Integer?
- A) Long
 - B) Digits
 - C) Float
 - D) Number
- 6) Which of these method wakes up the first thread that called wait()?
- A) wake()
 - B) notify()
 - C) start()
 - D) call()
- 7) Which package provides many event classes and Listener interfaces for event handling?
- A) java.awt
 - B) java.awt.Graphics
 - C) java.awt.event
 - D) None of these
- 8) How to create object of the inner class?
- A) OuterClass.InnerClassinnerObject = outerObject.newInnerClass();
 - B) OuterClass.InnerClassinnerObject = new InnerClass();
 - C) InnerClassinnerObject = outerObject.newInnerClass();
 - D) OuterClass.InnerClass = outerObject.newInnerClass();
- Q2) A) What is JVM? Identify the role of JVM in java program execution. [7]
B) Explain the different types of operators available in java. [7]
- Q3) A) What is abstract class? Explain the role of abstract class in java. [7]
B) Illustrate all the conditional statements in java with suitable example. [7]
- Q4) What is vector? Explain implementation of vector and different operations performed on it. [14]
- Q5) A) What is exception? How to handle exceptions in java. [7]
B) What is Multi-threading? Explain thread synchronization with suitable example. [7]

SC-271

Q6) A) Differentiate between StringBuffer and StringBuilder class. [7]

B) What is java swing? Explain component hierarchy in java swing. [7]

Q7) Write short notes. (Any four) [20]

1) Features of java

2) Nested class

3) Time class in java

4) Socket

5) Thread priorities

Seat No.	
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M.C.A. (Part - II) (Semester - III)
Examination, December-2024

Data Analytics

Sub. Code : 83604

Day and Date : Tuesday, 17/12/2024

Total Marks : 70

Time : 10:30 a.m. to 01:30 p.m.

Instructions : 1) Q. No. 1 and Q. No. 7 are compulsory.

2) Attempt any three questions from Q. No. 2 to Q. No. 6.

Q1) Choose correct alternatives for following questions from options [8]
given below.

1) Data Analysis is a process of _____

- A) Inspecting data B) Cleaning data
C) Transforming data D) All of these

2) What is the output of the following code?

```
import numpy as np  
a = np.arange(10)  
print(a[2:5])
```

- A) [2, 3, 4] B) [0, 1, 2]
C) [5, 6, 7] D) [2, 4, 6]

3) What is the output of the following code?

```
import numpy as np  
a = np.array([1; 2, 3])  
b = np.array([4, 5, 6])  
c = a+b  
print(c)
```

- A) [1, 2, 3, 4, 5, 6] B) [[1, 4], [2, 5], [3, 6]]
C) [5, 7, 9] D) Error

- 4) Which of the following thing can be data in Pandas?
- A) a python dict
 - B) an ndarray
 - C) a scalar value
 - D) All of these
- 5) What will be the output of following code?
- ```
import pandas as pd
pnd.Series([1,2], index= ['a','b','c'])
```
- A) Syntax Error
  - B) Index Error
  - C) Value Error
  - D) None of these
- 6) Amongst which of the following can be used to create various inputs using pandas DataFrame.
- A) Lists, dict
  - B) Series
  - C) Numpy ndarrays and Another DataFrame
  - D) All of these
- 7) Which is the correct command to install Matplotlib?
- A) pip install matplotlib
  - B) pip install matplotlib.pz
  - C) pip install matplotlib.\*
  - D) All of these
- 8) During the execution of the following code, what will be the response, we get - import pandas as pd
- ```
s=pd.Series([1,2,3,4,5],index= ['a','b','c','d','e'])  
print(s['f'])
```
- A) KeyError
 - B) IndexError
 - C) ValueError
 - D) None of these
- Q2) A) What is Data Analysis? Explain the different types of data analysis. [7]
- B) Describe different applications of data analysis. [7]
- Q3) A) What is ndarray? Explain dimensions in Arrays with an example. [7]
- B) Explain pseudo-random number generation in Numpy. [7]

Q4) Write a NumPy program to create array of 100 elements and find the most frequent value in an array. Also draw a line graph of array. [14]

Q5) A) Explain file input and output of array with appropriate example. [7]
B) Describe different characteristics of data analysis. [7]

Q6) A) Explain data structures in Pandas. [7]
B) Describe string manipulations in Pandas DataFrame. [7]

Q7) Write short notes on any four. [20]

- 1) Web Scrapping
 - 2) Handling Missing Data
 - 3) plot() method
 - 4) Universal Functions
 - 5) Reading Ms Excel file in Pandas
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Seat No.	
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MCA (Part-II) (Semester - III)
Examination, December-2024

Cyber Security

Sub. Code : 83605

Day and Date : Wednesday, 18/12/2024

Total Marks : 70

Time : 10:30 a.m. to 01:30 p.m.

Instructions : 1) Que. No 1 and Que. No 7 are compulsory.

2) Attempt any three Questions from Q. No. 2 to Q. No. 6.

Q1) Multiple Choice Questions.

[8]

- 1) An attempt to harm, damage or cause threat to a system or network is broadly termed as _____.
A) Cyber-crime B) Cyber Attack
C) System hijacking D) Digital crime
- 2) What is transformed using cipher algorithms?
A) Scalar text B) Complex text
C) Plain text D) None of these
- 3) State whether True or False : Data encryption is primarily used to ensure confidentiality.
A) True B) False
C) Cannot be Interpreted D) None of these
- 4) In which category does the lack access control policy fall ?
A) Threats B) Bugs
C) Attack D) Vulnerability

- 5) In cryptography, what is cipher?
 - A) algorithm for performing encryption and decryption
 - B) encrypted message
 - C) both A) and B)
 - D) None of these
- 6) What is Cyber Security ?
 - A) Cyber Security provides security against malware
 - B) Cyber Security provides security against cyber-terrorists
 - C) Cyber Security protects a system from cyber attacks
 - D) All of these
- 7) Which of the following is considered an element of cyber security ?
 - A) Network Security
 - B) Operational Security
 - C) Application Security
 - D) All of these
- 8) Which one of the following is a type of antivirus program ?
 - A) Quick heal
 - B) McAfee
 - C) Kaspersky
 - D) All of these

Q2) A) Define Cyber Security. Explain the need of cyber security. [7]
 B) Define vulnerability. Explain Cyber Security Vulnerabilities. [7]

Q3) What is Encryption? Explain Key elements of encryption systems. [14]

Q4) What is cloud security? Explain How to manage security in the cloud. [14]

Q5) A) Explain Secure Hypertext Transfer Protocol. [7]

B) Explain the different types of firewall in detail. [7]

Q6) Explain Information Technology Act 2000 in detail. [14]

Q7) Write Short Notes on (Any four) [20]

A) National Cyber Security Policy

B) Legal issues of Cyber security in India

C) Distinguish between IDS and IPS

D) Honeynets

E) Difference between HTTP and HTTPS

Seat No.	
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SC-273

Total No. of Pages : 3

MCA (Part -II) (Semester - III)
Examination, December-2024
Cyber Security
Sub. Code : 83605

Day and Date : Wednesday, 18/12/2024

Total Marks : 70

Time : 10:30 a.m. to 01:30 p.m.

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Q1) Multiple Choice Questions.

[8]

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SC-273

- Q5) A) Explain Secure Hypertext Transfer Protocol. [7]
B) Explain the different types of firewall in detail. [7]

Q6) Explain Information Technology Act 2000 in detail. [14]

Q7) Write Short Notes on (Any four) [20]

- A) National Cyber Security Policy
 - B) Legal issues of Cyber security in India
 - C) Distinguish between IDS and IPS
 - D) Honeynets
 - E) Difference between HTTP and HTTPS
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Seat
No.

SC-274

Total No. of Pages : 3

M.C.A. Commerce (Part-II) (Semester-III) (CBCS)

Examination, December-2024

ENTREPRENEURSHIP DEVELOPMENT

Sub. Code : 83606

Day and Date : Thursday, 19/12/2024

Time : 10:30 a.m. to 01:30 p.m.

Total Marks : 70

- Instructions : 1) Question No. 1 and 7 are compulsory.
2) Solve any three (3) from Question No. 2 to Question No. 6
3) Figures to the right indicate full marks.

Q1) Complete the following sentences by choosing correct alternatives. [8]

- 1) Non-economical factor of influence on Entrepreneurship development is,
A) Infrastructural facility B) Environment
C) Industry D) Labor
- 2) One of the advantages of Knowledge Processing Outsourcing (KPO) is,
A) Rigidity B) Time saving
C) Flexibility D) Specialized skills.
- 3) National Resource Center (NRC) is setup by Ministry of India for the purpose of ____
A) Carrying research B) SSI research
C) MSME Exporters D) MSME research
- 4) A Small Enterprise is an enterprise where investment in plant and machinery does not exceed (According to MSMED Act, 2006).
A) Rs. 25 Lakh B) Rs. 1 Crore
C) Rs. 2.5 1 crore D) Rs. 75 Lakh

- 5) Why should an entrepreneur do a feasibility study for starting a new venture?
- A) To identify possible sources of funds
 - B) To see if there are possible barriers to success
 - C) To estimate the expected sales
 - D) To explore potential customers
- 6) As per Joseph Schumpeter's theory, innovation means _____
- A) Anything uneven
 - B) Combinations of factors of production
 - C) Something unusual
 - D) New combination of 4 m's.
- 7) Why small businesses are important to a country's economy ?
- A) They give an outlet for entrepreneurs.
 - B) They can provide specialist support to larger companies.
 - C) They can be innovators of new products.
 - D) All of these
- 8) KPO stands for,
- A) Knowledge Process out sourcing
 - B) Knowledge practice out sourcing
 - C) Knowing problems overcome
 - D) Knowledge prospect out

Q2) "Entrepreneurship development leads to economic development". Explain the statement. [14]

- Q3) A) "There is various theories of innovations which spread light on entrepreneurship". Elaborate the statement. [7]
- B) Explain in brief various export policies by Indian government for MSMEs. [7]

- Q4) A) Define feasibility report of project and explain it's importance. [7]
B) Explain in detail problems and prospects of hardware industries. [7]

- Q5) A) What is meant by entrepreneurship ? Mention the various economical factors which affect it. [7]
B) Explain the importance of different training and development institutions of Entrepreneurship Development. [7]

- Q6) A) "Rural entrepreneurship opens the door of opportunities to rural people." [7]
Comment.
B) What is meant by SSI? Explain in detail it's problems and prospects. [7]

- Q7) Write Short Notes on (Any 4) [20]

- A) MSMEs Act 2006
- B) Functions of DIC
- C) Planning commission's guide lines.
- D) Skill India.
- E) Skill Development and Entrepreneurship Development

Seat No.	
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SC-275

Total No. of Pages : 3

MCA (Part - II) (Semester - III)
Examination, December-2024
Cloud Computing
Sub. Code : 83608

Day and Date : Friday, 20/12/2024

Time : 10:30 a.m. to 01:30 p.m.

Total Marks : 70

Instructions : 1) Qu. 1 and Qu. 7 are compulsory.
2) Attempt any three questions from Qu. 2 to Qu.6

Q1) Choose appropriate alternative for following questions.

[8]

1) What type of computing technology refers to services and applications that typically run on a distributed network through virtualized resources?

- A) Distributed Computing
- B) Cloud Computing
- C) Soft Computing
- D) Parallel Computing

2) 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)

3) _____ Provides runtime environment for applications, development and deployment tools, etc.

- A) XaaS
- B) PaaS
- C) SaaS
- D) PaaS

- 4) State whether true or false : Is google does a type of cloud computing?
A) True B) False
- 5) What type of computing technology refers to services and applications that typically run on a distributed network through virtualized resources ?
A) Distributed Computing B) Cloud Computing
C) Soft Computing D) Parallel Computing
- 6) Which of the following are the features of cloud computing ?
A) Security B) Availability
C) Large Network Access D) All of these
- 7) The technology used to distribute service requests to resources is referred to as ____
A) load performing B) load scheduling
C) load balancing D) All of these
- 8) Cloud computing is a concept that involves pooling physical resources and offering them as which sort of resource ?
A) cloud B) real
C) virtual D) None of these

Q2) A) Define Cloud Computing. Explain Benefits and Disadvantages of Cloud. [7]
B) Explain the different cloud services. [7]

Q3) A) Discuss Load Balancing. Explain the concept of Virtualization. [7]
B) What is hypervisor ? Explain it in detail. [7]

Q4) A) State the various Emerging Cloud Standards. [7]
B) Enlist the various types of cloud. Explain cloud security in detail. [7]

Q5) A) Explain the various malware and Internet attacks. [7]
B) What is the risk in Cloud Computing ? Explain vendor lock-in risks. [7]

- Q6) A) Explain PaaS. Explain applications of PaaS.
B) Explain Cloud Management Products.

[7]

[7]

Q7) Write Short Notes on (Any 4)

[20]

- A) Challenges of Cloud Computing
- B) Machine Imaging
- C) Disaster Recovery in Cloud
- D) SLA risk
- E) Virtual Machine Provisioning