

M.C.A.II Sem Internal Exam (2023)

Sub: Java Programming (MCA-T202) Duration: 1:30 hr.

Max.M.: 20

Q1. Give an overview of OOPs concept. Describe dynamic polymorphism with the help of java programme.

Q2. What is package in java? Describe the control of the access specifiers along with java program on protected specifier (with reference to package).

Q3. Give reason to support your answer:

- (i) How are the keywords final, finally and finalize different from each other?
- (ii) What is use of "this" keyword in java? Can we use it in function, conditional and loop statements?
- (iii) What is the purpose of static method and variable?
- (iv) Explain "public static void main (String[] args)" in java.

Q4. Explain the following:

(i) Types of JDBC drivers

(ii) Life cycle of threads

Q5. Write the difference between:

(i) throw and throws keywords in java

(ii) Checked and Unchecked Exceptions

(iii) Types of statements in JDBC

(iv) Inner class and Sub class

DEPARTMENT OF COMPUTER SCIENCE
MCA 2- II SEMESTER (Internal Exam 2023-24)
Paper Code – MCA T204 (Computer Networks)

Note – Attempt any Four Questions.

Q1. Application program need to send 1000 Bytes data, TCP divide it into 5 segments of equal size. Initial sequence number is 5000. Find sequence number of 2nd segment. Also find ack number sent by receiver after receiving 3rd segment? Also explain TCP protocol with its header?

Q2. What are Cyclic codes? If we have dataword 1001 and divisor 1011 then find codeword?

Q3. A Network with bandwidth 10 Mbps can pass only an average of 18,000 frames per minute. Each frame carrying 10,000 bits. Calculate the Throughput. Also explain difference between Throughput and Bandwidth?

Q4. If sender wants to send 10 packets using Stop & Wait but every 5th packet is lost in medium. Find total number of packets sent by sender? Also explain Stop & Wait Protocol?

Q5. Explain the SMTP (Simple Mail Transfer Protocol)?

5

DEPARTMENT OF COMPUTER SCIENCE
MCA II SEMESTER (Internal Exam 2023-24)
Paper Code – MCA T201 (DAA)

NOTE: Attempt any three.

1. Illustrate Merge sort algorithm and discuss its time complexity with suitable examples. Also write about various asymptotic notations in brief.
2. Differentiate between divide and conquer and greedy method with their pros and cons
3. Define knapsack problem and solve the following using the same
 $N=3$ $M=20$ $P=(20, 22, 25)$ $W=(8, 12, 20)$
4. Define backtracking and explain six queen problem using the same approach. Also compare backtracking with dynamic programming

Computer Architecture Internal Exam 2022-2023

Maximum Marks: 30

Note: Answer all the questions. Each carries equal marks.

1. Write, describe and demonstrate Booth's multiplier with the help of suitable examples.

OR

Write and demonstrate algorithm for non-restoring division.

2. Draw and describe circuits used to store 1 bit in SRAM and DRAM.

OR

Describe working of a cache memory in detail.

3. Describe DMA and IOP in detail.

DEPARTMENT OF COMPUTER SCIENCE
MCA II SEMESTER (INTERNAL EXAM 2023-24)

Assume a software project development scenario and prepare:

1. Analysis Model
2. Design Model

MCA II Sem Internal Exam(2023)

Sub: Java Programming lab

Duration:1.30 hr.

Max. M.:20

Q1. Write a JDBC program to create an Order table and update the name of the order to "Mithilesh Co." of order id of your choice (run time).(Column name: Order id, Customer name and Amount).

Q2. Write a java program to check if a year entered by user is a leap year or not.

MCA-E206 (Cloud Computing) Internal Examination 2023
M.M.: 15M (Internals) + 5M (Attendance regularly / Class Response) Duration: 90 Minutes.

S.No.		MM
1.	Name the building blocks of cloud architecture ? Define different layers of cloud architecture.	5
2.	What is Cloud bursting? When do organizations use cloud bursting?	5
3.	List three types of SLA . What are the Key components of an SLA	5
4.	Compare scalability and elasticity in terms of cloud computing.	

Success is never accidental.