National University

B.Sc.(Hons.) in CSE,Part II, 5th Semester Examination-2020

CSE- 530202

(Peripheral and Interfacing Lab Practical)

Time: 3 Hours | Full Marks:40

N.B. Answer any one question from the following.

1. Write and execute a machine language program in MTS86 trainer board solve the mathematical expression X=A+B where A=01 and B=F0.
2. Write and execute a machine language program in MTS86 trainer board solve the mathematical expression X=A-B where A=07 and B=02.
3. Write and execute a machine language program in MTS86 trainer board to solve the logical AND operation, AB=? where A=02 and B=A3.
4. Write and execute a machine language program in MTS86 trainer board to solve the logical OR operation, A+B=? where A=02 and B=A3.
5. Write and execute a machine language program in MTS86 trainer board to solve the logical NOT operation, Ā=? where A=02.
6. Write and execute a machine language program in MTS86 trainer board to solve the logical operation AND, OR, NOT, XOR and shift left and shift right operation, $A \oplus B$=? where A=02 and B=A3.
7. Write and execute a machine language program in MTS86 trainer board to solve the shift left operation.
8. Write and execute a machine language program in MTS86 trainer board to solve the shift right operation.
9. Write and execute a program in a MTS86 trainer board and show hexadecimal value (0,1,...F) on the seven segment display.
10. Write and execute a program in a MTS86 trainer board and show value on the LED display.
11. Write and execute a program in a MTS86 trainer board and show D/A converter.
12. Write and execute a program in a MTS86 trainer board and show LED MATRIX.

Marks Distribution:

i.	Source code		10
ii	Result		15
iii.	Viva-voce		15
	Total Marks	=	40

National University

B.Sc. (HONS) IN CSE THIRD YEAR, FIFTH SEMESTER EXAMINATION, 2020

Course Code: CSE-530204

Data and Telecommunications Lab

Time: 3 hours Full Marks: 40

[N. B. Answer any one of the following problems.]

1. Implementation of Static Routing using packet tracer.
2. Telnet and SSH Configuration in packet tracer.
3. Implementation of Dynamic Host Configuration Protocol (DHCP).
4. Implementation of Routing Information Protocol (RIP) using Packet Tracer.
5. Implementation of Open Shortest Path First (OSPF) using Packet Tracer.
6. Implementation of Enhanced Interior Gateway Routing Protocol (EIGRP) using Packet Tracer.
7. Implementation of VLAN using Packet Tracer.
8. Implementation of Border Gateway Protocol (BGP).
9. Configuration of Static Network Address Translation (NAT).
10. Configuration of Dynamic Port Address Translation (PAT).
11. Configuration of Access Control Lists (ACL).
12. VPN configuration lab using routers in cisco packet tracer.

N. B.: Simulation Software will be GNS3 or Packet Tracer.

Marks Distribution:

Theoretical Study-	05
Topology Design	05
Configuration	15
VIVA	15
Total	**40**

CamScanner

NATIONAL UNIVERSITY

B.Sc. (Honors) in Computer Science and Engineering

Part-III, Fifth Semester Final Examination,2020

CSE 530206 (Operating System Lab)

Time: 3 Hours Full Marks: 40

Answer Any Two Questions. 20x2=40

1. Write a C program to simulate CPU Scheduling Algorithms.
   a) First Come First Serve (FCFS)
   b) Shortest Job First (SJF)
   c) Round Robin
   d) Priority
2. Write a C program to simulate Producer-Consumer problem using Semaphores.
3. Write a C program to simulate the concept of Dinning-Philosophers Problem.
4. Simulate Memory Management Techniques
   a) Multiprogramming with Fixed Number of Tasks (MFT)
   b) Multiprogramming with Variable Number of Tasks (MVT)
5. Write a C program to simulate the following Contiguous Memory Allocation.
   a) Worst Fit
   b) Best Fit
   c) First Fit
6. Simulate all Page Replacement Algorithm.
   a) First in First out (FIFO)
   b) Least Recently Used (LRU)
   c) Optimal
7. Simulate all File Organization Techniques.
   a) Single Level Directory
   b) Two Level Directory
8. Simulate all File Allocation Strategies.
   a) Sequential
   b) Indexed
   c) Linked
9. Simulate Bankers Algorithm for Dead Lock Avoidance.
10. Simulate Bankers Algorithm for Dead Lock Prevention.
11. Write a C program to simulate Disk Scheduling Algorithms
    a) FCFS b)SCAN c)C-SCAN

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