



V<sup>th</sup> sem.

ANJUMAN-I-ISLAM'S  
KALSEKAR TECHNICAL CAMPUS, NEW PANVEL 2016-17  
School of Engineering & Technology

Subject: CN  
Marks: 20 Marks  
Class: TE

Date: 03/09/2016  
Duration: 1 Hr/s  
Branch: COMPUTER ENGG

**Instructions:**

- 1) Question No.1 is compulsory.
- 2) Assume suitable data wherever necessary.

**Q1 : Define any five. [10M]**

1. Protocol
2. Hamming Distance.
3. Character Stuffing
4. ALOHA
5. Unicasting and Multicasting
6. NIC
7. Encapsulation

**Q2 : Attempt any one. [5M]**

1. Write short notes on Bluetooth.
2. Describe ISO-OSI Reference Model in detail.

**Q3 : Attempt any one. [5M]**

1. Describe VLAN in detail.
2. Explain CSMA protocol. Also explain how collisions are handled in CSMA/CD.

\*\*\*\*\* GOOD LUCK \*\*\*\*\*



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**Subject: SOOAD**  
**Marks: 20**  
**Class: TE**

**Date: \_\_\_\_\_**  
**Duration: 1 Hr/s**  
**Branch: CO**

**Instructions:**

1. Attending Q1. is compulsory.
2. Any one from Q2 or Q3.

- Q1. Attempt any 4 (3 x 2 & 2 x 2), [10]
- a) What is the role of System Analyst? [03]
  - b) List out different requirement gathering Techniques. [02]
  - c) Draw the SDLC process cycle. [03]
  - d) Describe why the system needs to be analyzed? [02]
  - e) Describe the term aggregation, composition, multiplicity, qualification, role names, Association with respect to class diagram. [03]
  - f) Differentiate between include and extends relationship wrt use-case diagram. [02]
- Q2. [05]
- a) Explain the checklist to be considered for validating the requirements. [05]
  - b) Draw and explain in short Zachman's framework. [05]
- Q3. [05]
- Your collage wishes to prepare and maintain the database system to track progress of the students who were recruited through collage training and placement cell.
- a) Draw the usecase diagram for above scenario. [05]
  - b) Draw the interaction diagrams for above scenario. [05]



**Q.3 Solve any one Numerical.**

**(5M)**

a) Consider the following snapshot of the processes to be executed.

Process	Arrival time	Burst time
P1	0	4
P2	2	5
P3	4	6
P4	5	2
P5	6	1

Draw the Gantt chart and determine the average waiting time and average turn around time for FCFS and SRTF.

b) Consider the following snapshot of the system.

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P1	1	4	2	2	4	3	3	2	3
P2	0	1	0	3	2	3			
P3	2	0	3	3	4	4			
P4	1	2	2	3	3	2			

i) What is the content of Need Matrix.

ii) Determine the total amount of resource of each type.



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**Unit Test - 1**

**Subject : Microprocessor**

**Marks : 20**

**Class : TECO**

**Date : /09/2016**

**Duration : 1 Hr/s**

**Branch : Comp. Engg.**

**NOTE:- Attempt all Questions.**

**Q-1 ) Attempt any five.**

- |  |   |
|--|---|
| a) Draw programming model of microprocessor 8086.                      | 2 |
| b) What is memory segmentation ? Draw suitable diagram.                | 2 |
| c) Explain 8288 Bus controller.  | 2 |
| d) Explain – STOSB , STI.  | 2 |
| e) Explain - LAHF , PUSHF.   | 2 |
| f) Draw timing diagram for read cycle in minimum mode of $\mu$ p 8086. | 2 |

**Q-2) Attempt any one.**

- |   |   |
|---|---|
| a) Explain with diagram minimum mode of operation of $\mu$ p 8086.  | 5 |
| b) Write a assembly language program for $\mu$ p 8086 to arrange of 5 elements of an array in disscending order (each element of array is of 8 – bits). | 5 |

**Q-3) Attempt any one.**

- |  |   |
|--|---|
| a) Write a assembly language program for $\mu$ p 8086 to demonstrate DOS interrupts. | 5 |
| b) Explain in detail 8284 clock generator .  | 5 |

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