

Sem: V (Comp) CBQS
Microprocessor

17/5/16.

QP Code : 31091

(80 Marks) (3 Hours)

- Question no. 1 is compulsory.
- Answer any three questions from question no. 2 – 6.
- Assume suitable data, if necessary.

- Q.1. Answer following questions in brief.
- Explain programming model of 8086. (05)
 - Explain V86 mode of 80386DX. (05)
 - Explain, in brief, pipeline stages on Pentium processor. (05)
 - Explain, in brief, data format supported by SuperSparc processor. (05)
- Q.2. a. Explain memory segmentation with pros and cons. (08)
- b. Draw and explain the block diagram of 8255. Also, explain different operating modes of 8255. (12)
- Q.3. a. Design 8086 based minimum mode system for following requirements: (12)
- 256 KB of RAM using 64 KB x 8-bit device
 - 128 KB of RAM using 64 KB x 8-bit device
 - Three 8-bit parallel ports using 8255
 - Support for 8 interrupts
- b. Explain, in brief, cache organization of Pentium processor. (08)
- Q.4. a. Draw and explain architecture of SuperSparc processor. (12)
- b. Discuss, in brief, protection mechanism of 80386DX. (08)
- Q.5. a. Draw and explain architecture of Pentium processor. (10)
- b. Draw timing diagram of read operation on 8086 based system. (10)
- Q.6. Write short notes on
- 8089 I/O Processor (05)
 - Comparison between i5 and i7 (05)
 - SuperSparc registers (05)
 - 8259 – PIC (05)

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FW-Con. 10270-16.

SEM - V (CBGS) COMP
Computer Networks.

23/5/16

QP Code : 31134

(3 Hours)

Total marks : 80

Note:

- Question No. 1 is compulsory.
- Attempt any Three questions out of remaining questions.
- Make suitable assumptions whenever necessary.

Q 1:

[4 X 5]

- Compare connection oriented and connectionless services.
- Explain in short Subnetting.
- Explain in short different framing Methods.
- Explain in short TCP/IP Model.
- What is the use of SSH ?

Q 2:

- Explain any four functions of Data Link layer with example. [10]
- What is IPv4 protocol? Explain the IPv4 Header format with diagram. [10]

Q 3:

- Explain Classless Inter Domain Routing (CIDR). [10]
- Discuss the quality of service parameters in computer network. [10]

Q 4:

- What are the steps involved in link state routing. Explain the contents and requirements of link state packets. [10]
- Compare Open Loop congestion control, Closed Loop congestion control. [10]

Q 5:

- Write a Program for client-server application using Socket Programming(TCP). [10]
- An ISP is granted a block of addresses starting with 150.80.0.0/16. The ISP wants to distribute these blocks to 2600 customers as follows.
 - The first group has 200 medium-size businesses; each needs 128
 - The second group has 400 small businesses; each needs 16
 - The third group has 2000 households; each needs 4 addresses. Design the subblocks and give the slash notation for each subblock. Find out how many addresses are still available after these allocations. [10]

Q 6: Write short notes on the following.

[5 X 4]

- Virtual LAN
- FDDI
- BGP
- SNMP