Microprocessors 2009 December Technology BCA Semester 3 University Exam Mangalore University

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Reg. No.

BCACAC 201

Credit Based Third Semester B.C.A. Degree Examination, November/December 2009 (New Syllabus) MICROPROCESSORS

10

Time: 3 Hours

Max. Marks: 80

Instructions : Answer any 10 questions from Part – A and one full question from each Unit of Part – B.

PART - A

 $(10 \times 2 = 20)$

1. a) Define nibble, byte, word and doubleword.

- b) List the any two features of Intel 4004.
- c) What is the purpose of IP and SP tegisters ?

d) Differentiate intersegment and inter segment jump.

e) Identify the data addressing mode in the following instructions.i) MOV Ax, [2345H]

ii) MOV CH,34H.

f) Explain the purpose of SCAS instruction.

g) Explain the purpose of LDS.

h) Why segment override prefixes are used ? Give example.

i) If AL = 86H, evaluate TEST AL, 12H.

j) Explain how LOOP instruction works.

k) How many bytes are used in far CALL instruction ? Explain.

1) What are interrupt vectors ? How many types are available ?

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PART – B UNIT – I

- a) What is a bus ? Describe the bus structure of a microprocessor based computer system with the help of a block diagram.
 - b) Explain how the real numbers are stored in single precision rumber format with suitable example.
 - c) Differentiate the following flag registers Give example.
 - i) Carry and Auxiliary flags
 - ii) Parity and Sign flags
 - iii) Carry and Overflow flag;
- 3. a) Explain the architecture of nucroprocessor based computer system briefly with a block diagram.
 - b) Write a note on ASCII data format.
 - c) Explain any four multi purpose registers.
 - d) Differentiate packed and unpacked BCD data format. Represent 729 in both type. (4+3+4+4)

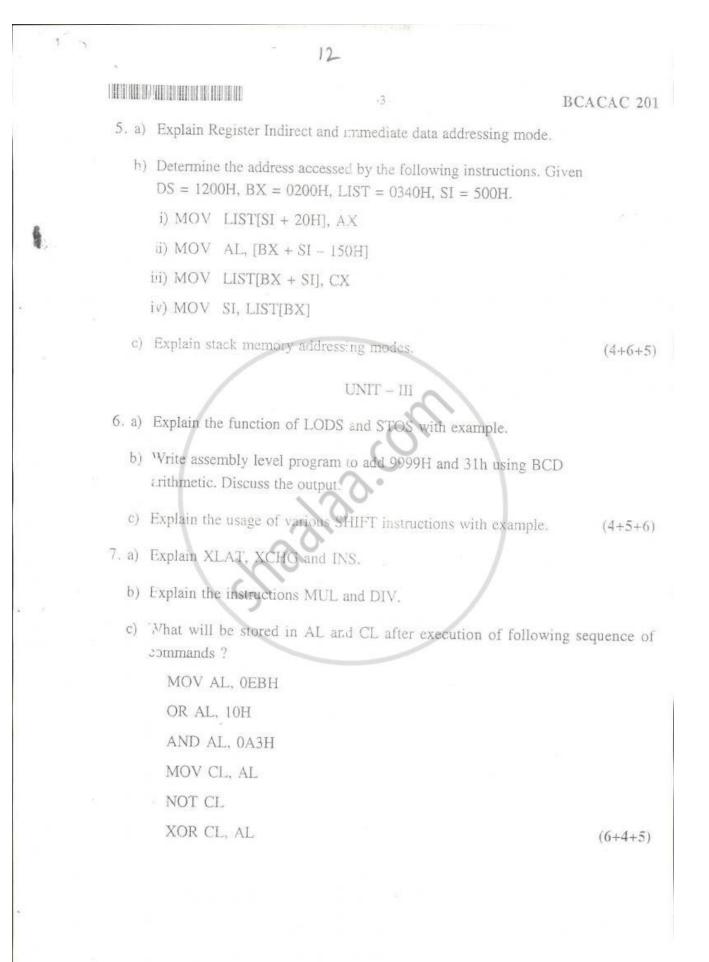
UNIT - II

4. a) Explain Register, Direct and Base Plus Index data addressing mode.

- b) Explain any two program memory addressing modes.
- c) Give the purpose of PUSHA, PUSH AX, POPF and POPA (6+5+4)

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(5+4+6)



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	UNIT – IV	
8. a) Write a n	note on procedure.	
 b) Which is/ Also spec 	/are the flag conditions checked for the followi cify the operation performed by them.	ng jump instructions ?
i) JA	ii) JNS iii) JO iv) JC	XZ.
c) Explain i	nterrupt instructions INT 3, INTO, INT.	(5+4+6)
). a) Write a n	ote on CALL with indirect memory addresses	and register operand.
b) Explain I	RET. Compare it with RET.	
	WAIT, HLT, BOUND, ENTER and LEAVE	(4+3+8)