Scheme of Valuation/Answer

(Scheme of evaluation (marks in brackets) and answers of problems/key)

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIFTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: EE309

Course Name: MICROPROCESSOR AND EMBEDDED SYSTEMS

Max. Marks: 100		Duration: 3 Hours

PART A

		Answer all questions, each carries5 marks.	Marks
1		A=$D5_H$(2.5 marks), CY=0,AC=1,P=0,Z=0,S=0(2.5marks)	(5)
2		Program (2.5 marks), Max. delay=1.1ms (2.5 marks)	(5)
3		Mode 0 , mode1, mode2 operation explanation (5 marks)	(5)
4		Assembler (2.5 marks), Compiler (2.5 marks),	(5)
5		List any two bit handling instruction and explain its operation (5 marks) Eg:-SETB bit, CLR bit	(5)
6		Addressing modes with eg:- (5 marks)	(5)
7		Program (5 marks) ***Students making a positive attempt to answer this question may be provided with proportional weightage of marks.***	(5)
8		Explain- ORG, EQU, END (5 marks)	(5)

PART B

Answer any twofull questions, each carries10 marks.

9		Programs with comments (10 marks) ***Students making a positive attempt to answer this question may be provided with proportional weightage of marks.***	(10)
10	a)	Explain machine cycle(3), T state (2)	(5)
	b)	Explain CALL and RET (5marks)	(5)
11	a)	Draw timing dig. -OF+MR+MW (6 marks)	(6)
	b)	MOV A,M(2 marks), XCHG (2 marks)	(4)

PART C

Answer any twofull questions, each carries10 marks.

12	a)	Memory allocation table(4 marks), Memory interface circuit(6 marks)	(10)
13		Explain(10 marks)	(10)
14	a)	Interrupt structure (6 marks)	(6)
	b)	List 4 difference(4 marks)	(4)
PART D			
Answer any twofull questions, each carries 10 marks.			
15		Diagram(5 marks), Explain(5 marks)	(10)
16		Program (10 marks) ***Students making a positive attempt to answer this question may be provided with proportional weightage of marks.***	(10)
17	a)	2 bit jump instruction (2 marks) 2 byte jump instruction (2 marks)	(4)
	b)	Explain SCON & SBUF registers -3 marks each (3*2=6 marks)	(6)
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