

Sri Shridevi Charitable Trust[R]
SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION
ACADEMIC YEAR 2018-19
1st INTERNAL ASSESMENT



Sub:Microprocessors
Marks:30

Sub code:17EC46
Time Duration:75Min

Answer any two full questions from each module

- 1.a. Define Microprocessor. Describe the Architecture of 8086 with neat diagram 10M (CO1)
- b. Explain the Physical address formation in 8086. 5M (CO1)
- OR
- 2.a. Explain the following addressing modes in 8086
 - i) Register Addressing mode
 - ii) Based Indexed Addressing mode 10M(CO1)
 - iii) Immediate Addressing mode
 - iv) Direct Addressing mode 5M(CO1)
- b. Explain the Flag register of 8086.
- 3.a. Explain the following instruction with examples.
 - i) LEA ii) IDIV iii) XLAT iv) DAA 8M(CO2)
- b. Write an ALP to find square of a given number 7M(CO2)
- OR
- 4.a. What are assembler directives? Explain the following assembler directives with examples
 - i) ASSUME ii) DB iii) HALT iv) PROC 8M(CO2)
- b. Write an ALP to convert Binary number into gray code 7M(CO2)

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Scheme of Evaluation

NAME OF THE FACULTY:	Haspiya R
DEPARTMENT:	ECE
SUBJECT TITLE:	Microprocessors (2)
SUBJECT CODE:	17EC46
SIGNATURE:	<i>H.R.</i>

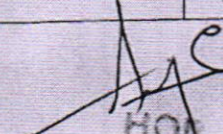
Q.NO	SOLUTION	MARKS
1.a.	Definition of Microprocessor - 2M Architecture Block diagram - 5M Explanation - 3M	10M
b.	Explanation of Physical address formation - 2M Example - 3M	5M
2.a.	i) Register Addressing Mode - 2½ ii) Based Indexed Addressing Mode - 2½ iii) Immediate Addressing Mode - 2½M iv) Direct Addressing Mode - 2½M	10M
b.	Flag Register format - 3M Explanation - 2M	5M

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Q.NO	SOLUTION	MARKS
3.a.	i) LEA - Load Effective address - 2M ii) IDIV - Integer Divide - 2M iii) XLAT - Translate - 2M iv) DAA - Decimal Adjust - 2M	8M
b.	program - 7M To find Square of given no Start: MOV ax, @data MOV ds, ax MOV ax, 04H MOV ah, ax al MUL ah MOV @sq, al MOV ah, 04ch INT 21h JMP start	7M
6.c.	Definition of assembler directives - 2M Assume - 1½ DB - 1½ HALT - 1½ PROC - 1½	8M
b.	program to convert Binary to Gray Code	7M


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