

Sant Gadge Baba Amravati University, Amravati Summer 2020 Exam

H.V.P.Mandal's College of Engineering & Technology Amravati

Course: Computer Science & Engineering

**BE Four Year Fourth Semester (Computer Science & Engineering) Summer 2020 Exam
4KS04 Assembly Language and Programming**

ONLY FOR BACKLOG STUDENTS

Note:

- 1. Solve any Two Questions.**
- 2. Each Question carries 10 marks.**

Question No.1 (10 marks)

a. Explain the internal architecture of 8086.	2M
b. Explain DAS and SBB instructions with example.	2M
c. Explain CALL and RET instruction.	1M
d. Explain Subroutine with example.	2M
e. Explain IN/OUT instruction of 8086.	2M
f. Explain interrupt instructions used in 8086.	1M

Question No.2 (10 marks)

a. Calculate following addresses i) ? : 14DA = 235DA ii) 1000 : ABCD = ?	2M
b. Explain instruction format used in 8086 microprocessors.	2M
c. Explain flag manipulation instruction of 8086?	1M
d. What are the advantages of Macros over Subroutine.	1M
e. Explain the isolated I/O interface of 8086 in brief.	2M
f. What do you understand by interrupt? Explain interrupt types & their priority.	2M

Question No.3 (10 marks)

a. Explain flag register of 8086.	1M
b. Assume that (AX) = ABCD ₁₆ and (BX) = 4321 ₁₆ . What is the result of executing ADD AX, BX ?	1M
c. Explain the shift instructions with example.	2M
d. What is stack? How stack is implemented in memory?	2M
e. Differentiate between I/O mapped I/O and memory mapped I/O.	2M

f. Explain with the help of diagram Interrupt vector table.

2M

Question No.4 (10 marks)

a. Explain software model of 8086.

2M

b. What do you mean by addressing modes? Explain memory operand addressing modes.

2M

c. Explain in detail CMP instruction. Also differentiate between CMP and SUB instruction.

2M

d. Differentiate between NEAR and FAR procedure.

2M

e. Draw block diagram of 8255 PPI.

1M

f. Explain IRET, INT N, RESET interrupt handling instructions.

1M