

S. Y. B. C. A.

BCA -206 Microprocessor Architecture & Programming

Teaching Scheme (per week)		Examination Scheme					
Th. (hours)	Pr. (hours)	Internal		External		Total	
		Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
3	-	30	-	70	-	100	-

UNIT I (18 Marks)

8085 Microprocessor Architecture & Microcomputer System:

Microprocessor Architecture and its Operations, Memory, Input/Output, The 8085 MPU. Instruction Classification, Instruction Format.

UNIT II (20 Marks)

Instruction Set of 8085 μ P and Assembly Language Programming-I:

Data Transfer (8 Bit, 16 Bit, from memory to μ P & from μ P to memory) Instructions, Arithmetic (8 & 16 Bit) Operations, Arithmetic Operation related to Memory, Logic Operations (Including Rotate & Compare), Branch Operations, Static and Dynamic Debugging.

UNIT III (17 Marks)

Assembly Language Programming-II:

Counter and Time Delays, Stack, Subroutine, Conditional Call & Return Instructions, BCD to Binary and Binary to BCD Conversion, BCD Addition, BCD Subtraction, Multiplication.

UNIT IV (15 Marks)

Intel 8086 Microprocessor:

Pin Description, Operating Mode, Registers, Interrupts, Addressing modes.

[Cash Studies: (Their is no weightage of marks in examination)]

Other Microprocessors:

Brief introduction of Intel Microprocessor: 80186, 80286, 8080, 80188, 80386, 80486, Celeron, Pentium Zilog Microprocessor: Z80, Z800, Z8000 Motorola Microprocessor: 68XX & 68XXX series]

Books:

1. Microprocessor Architecture, Programming and Applications with 8085/8080A – Ramesh S. Gaonkar, Wiley Eastern Limited.
2. Fundamentals of Microprocessors and Microcomputers – B.RAM, Dhanpat Rai Pub.
3. The Intel Microprocessors 8086/8080, 186/286, 386, 486, Pentium and Pentium Pro processor Architecture, Programming and Interfacing – Barry R. Brey, PHI.

Question Paper Scheme:

University Examination Duration : 3 Hours.

Q.1 - Unit-I (18 Marks)

- A. Objective/ Short Questions.
- B. Descriptive/ Long questions.

Q.2 - Unit-II (20 Marks)

- A. Objective/ Short Questions.

B. Descriptive/ Long questions.

OR

C. Assembly Language Program/s

Q.3 - Unit-III

(17 Marks)

A. Objective/ Short Questions.

B. Descriptive/ Long questions.

OR

C. Assembly Language Program/s

Q.4 - Unit-IV

(15 Marks)

A. Objective/ Short Questions.

B. Descriptive/ Long questions.

Note: Options should be given in all questions.