

BACHELOR OF TECHNOLOGY (CBCS) (2020 COURSE)

Information Technology

B.Tech.Sem - IV :SUMMER : 2023

SUBJECT : MICROPROCESSORS & MICROCONTROLLERS

Day : Saturday

Time : 10:00 AM-01:00 PM

Date : 27-05-2023

S-24720-2023

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Use of **non-programmable calculator** is allowed.
- 4) Draw neat and labeled diagrams **wherever** necessary.
- 5) Assume suitable data **wherever** necessary.

Q.1 Explain the architecture of 80386 microprocessor in detail with suitable diagram. Also explain the advantages of pipelining. (10)

OR

Explain the multicore architecture in detail with suitable diagram. (10)

Q.2 Explain in detail the branch prediction feature in Intel Pentium processor with suitable figure. (10)

OR

Compare Intel 8086, 80386 and Pentium processors in detail. Give atleast ten points. (10)

Q.3 Explain the architecture of ARM processor in detail with suitable block diagram. (10)

OR

Explain the various features of ARM processor in detail. (10)

Q.4 Discuss in detail the applications of microcontrollers. (10)

OR

Explain the features of Intel 8051 processor in detail. Explain the internal data memory of 8051 microcontroller with neat diagram. (10)

Q.5 Explain the architecture of AVR microcontroller in detail with suitable block diagram. (10)

OR

Explain the various features of AVR microcontroller in detail. (10)

Q.6 Differentiate between Arduino and Raspberry Pi Microcontroller in detail. Give atleast ten points. (10)

OR

Explain the architecture of Raspberry Pi microcontroller in detail with suitable diagram. (10)

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