



WALCHAND COLLEGE OF ENGINEERING

(Government Aided Autonomous Institute)

Vishrambag, Sangli - 416415

Second Year B.Tech. Computer Science and Engineering

ESE, ODD SEMESTER, AY 2022-23

Computer Organization and Architecture (6CS204)



ESE

PRN: _____

Day & Date: Friday, 10/02/2023

Time : 10.00 am to 1.00 noon

Max Marks **50**

IMP: Verify that you have received question papers with correct course code, branch etc.

- Instructions**
- a) All questions are compulsory.
 - b) Writing question number on answer book is compulsory otherwise answers may not be assessed.
 - c) Assume suitable data wherever necessary.
 - d) Figures to the right of question text indicate full marks.
 - e) Mobile phones, smart gadgets and programmable calculators are strictly prohibited.
 - f) Except PRN anything else writing on question paper is not allowed.
 - g) Exchange/Sharing of stationery, calculator etc. not allowed.

Text on the right of marks indicates course outcomes (Only for faculty use)

Marks

- Q1**
- A) Explain in detail Instruction cycle state diagram. 4 CO1
 - B) What is Interrupt and describe how to process nested Interrupt? 5 CO1
 - C) Explain the difference between CALL and JUMP Instructions of 8085. CO2
- OR**
- 4

What is the meaning of HLDA and HOLD pins of 8085?

- D)** State the contents of Accumulator, B register and status of Flag register, when following instructions of 8085 are executed. CO3

MVI A, 38H

MVI B, 2FH

ADD B

STA 2050H

MOV B, A

HLT

6

- Q2 A) Explain any four Addressing modes of 8085 with example. 4
- B) Use 8085 instruction set and write a short program to Mask all bits of A=5BH except bit 4. State the contents of accumulator after result. 3

OR

Write a short Assembly Language Program to right shift 0FH number by 2 bits using 8085 instructions. State the results.

- Q3 A) State any four differences between 8085 and 8086 Processors. 4
- B) Describe in brief the four segment registers of 8086. 4
- C) The value of Extra Segment (ES) Register is 3055H and the value of different offsets is as follows: COE

BX: 1050H, IP: 0500H, DI: 0520H, BP: 0450H, SI: 0150H 2

Calculate the effective address of the memory location pointed by the ES register.

- D) Which are the control Flags of 8086? Discuss each of them separately. 4 COE
- E) List out the Pins required when 8086 working in Maximum mode. 2 COE

- Q4 A) Explain Current Program Status Register (CPSR) of ARM core with neat diagram. 4 COE
- B) What are banked registers? Show how the banked registers are utilized when the user mode changes to IRQ mode. 4 COE

.....End of question paper.....