



**NAVACHANA  
UNIVERSITY**

a UGC recognized University

**School:** School of Engineering and Technology  
**Program/s:** Computer Science and Engineering  
 Department  
**Year:** 2<sup>nd</sup> **Semester:** 3<sup>rd</sup>  
**Examination:** End Semester Examination  
**Examination year:** December - 2021

**Course Code:** CS233 **Course Name:** Introduction to Microprocessor  
**Date:** 06/12/2021  
**Time:** 08:30 am to 10:30 am

**Total Marks:** 40  
**Total Pages:** 02

**Instructions:**

- Write each answer on a new page.
- Use of a calculator is permitted/not permitted.
- \*COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

Q. No.	Details	Marks	COs*	BTL#
Q.1	<b>Attempt all Objectives</b>	<b>10</b>		
1.	There are _____ general purpose registers in 8085 processor a) 5 b) 6 c) 7 d) 8		CO1, CO2	BT1, BT2
2.	It is also a 16-bit register works like stack, which is always incremented / decremented by 2 during push & pop operations. a) Stack pointer b) Temporary register c) Flag register d) Program counter		CO1 CO2	BT1, BT2
3.	What is true about Program Counter? a) It is an 8-bit register, which holds the temporary data of arithmetic and logical operations. b) When an instruction is fetched from memory then it is stored in the program counter c) It provides timing and control signal to the microprocessor d) It is a 16-bit register used to store the memory address location of the next instruction to be executed.		CO2, CO3	BT1, BT2, BT3
4.	Which bus controls the sequencing of read/write operations? A). Data bus B). Address bus C). Control bus D). Sequence bus		CO1, CO2 CO3	BT1, BT2
5.	Which of the following statement is related to Accumulator? a) It is a storage element b) It performs complementing operations c) It performs decimal operations d) All the above		CO2, CO3	BT2 BT3

6.	The BIU prefetches the instruction from memory and store them in _____ a) queue b) register c) memory d) stack		C02, C03	BT1, BT2, BT3
7.	In _____ the operand is specified in the instruction itself a) Immediate addressing b) Register mode c) Implied addressing d) D. Register Indirect		C01, C02	BT1, BT2
8.	The addressing mode/s, which uses the PC instead of a general purpose register is _____ a) Indexed with offset b) Relative c) Direct d) D. Both Indexed with offset and direct		C01 C02 C03	BT2, BT3
9.	A set of register which contain are: _____ a) data b) memory addresses c) result d) all of these		C01	BT1, BT2
10.	_____ is the most important segment and it contains the actual assembly language instruction to be executed by the Microprocessor. a) Code Segment b) Data Segment c) Stack Segment d) Extra Segment		C02, C03, C04	BT1, BT2, BT3
<b>Q.2</b>	<b>Attempt all Questions</b>	<b>05</b>		
1.	Mention the purpose of SID and SOD in 8085 Microprocessor.		C01, C02	BT2, BT3
2.	What is Static RAM and Dynamic RAM?		C01	BT2
3.	Write down the features of In-Circuit Emulator.		C05	BT2, BT4
4.	Mention the characteristics of Logic analyzer.		C05	BT2, BT4
5.	Write down the advantages of using segment registers in 8086 Microprocessor.		C02 C03	BT1, BT2
<b>Q.3</b>	<b>Attempt any 5 Questions</b>	<b>25</b>		
1.	Explain the Flag Register of 8086 Microprocessor with diagram.		C02, C03	BT1, BT2
2.	Explain the General Purpose Register of 8085 Microprocessor with diagram.		C01, C02	BT1, BT3
3.	Define the various functional units of Pentium architecture. Explain any three.		C05	BT1, BT2, BT3
4.	Explain the Microprocessor Bus Organization with diagram. Describe the various buses available in Microprocessor.		C01 C02	BT1 BT2
5.	Explain the Control Unit and Execution unit of 8087 Co-Processor.		C04	BT1, BT2 BT3
6.	What is the work of Data Transfer Instruction Set in 8086 Microprocessor and 8087 Co-Processor with example.		C02 C03 C04	BT2, BT3, BT4
7.	Mention the jobs performed by BIU and EU in 8086 Microprocessor.		C01, C02, C03	BT1, BT2

\*\*\*\*\*End of Question Paper\*\*\*\*\*