Name: **Enrolment No:**	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2020

Course: Microprocessor **Semester: IV**
Program: B. Tech ECE **Time 03 hrs.**
Course Code: ECEG2034 **Max. Marks: 100**

Instructions: Answer all the questions.
Diagrams must be neat and clean.

SECTION A

Each Question will carry 5 Marks
Instruction: Complete the statement / Select the correct answer(s)/write a few words

S. No		**CO**
Q 1	What are the addressing modes of 8085? Give examples	**CO1**
Q 2	Explain the operation of 80286 in brief detailing the difference with 8086	**CO1**
Q 3	Explain the pipeline architecture of 8086 .	**CO2**
Q 4	What are the addressing modes of 8086? Give an example of each	**CO1**
Q5	Write a program in 8086 to add two sixteen bit numbers with carry. Assume memory locations according to your convenience	**CO3**
Q6	How do you identify the port addresses of the control register and counters of 8254?Give example	**CO3**

SECTION B

Each question will carry 10 marks
Instruction: Write short / brief notes

Q 1	What are the functions and applications of octal bidirectional buffer 74 ls 244? Assume that the accumulator contains data byte 82 h and the instruction MOV C,A is fetched with opcode 4F h. List the steps in decoding and executing the instruction	**CO4**
Q 2	Explain the operation of programmable interrupt controller	**CO2**

Q 3	Write an ALP to transfer entire block of data to new memory locations staring at 2270. sixteen bytes of data are stored in memory locations at 2250h to 225F h	**CO4**
Q 4	Write a program to count from 0-20h with a delay of 100ms between each count. After the count 20h, the counter should reset itself and repeat the sequence	**CO3**
Q 5	Explain with the help of block diagram the architecture of an ARM 7 processor	**CO4**

SECTION-C

Each Question carries 20 Marks.
Instruction: Write long answer.

Q 1	Consider a memory mapped I/O scheme for 8255. A15 of the address bus is connected to the chip select pin of 8255. A0 and A1 of 8085 is connected to A0 and A1 of 8255.identify the port addresses. Identify the mode 0 control word to configure port A and port Cupper as output ports and port B and port Clower as input portds.Write a program to read the DIP switches connected to port B and port Clower and display the reading from port B to port A and portClower to port Cupper.	**CO4**

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