

Enrolment No:



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

Course: Microprocessor
Program: B.Tech electronics and communication engineering

Semester: 4th
Time 03 hrs.

Course Code: ECEG2034

Max. Marks: 100

Instructions:

1. Attempt all the questions (Theory, Numerical, Case study etc.) on A4 size blank sheets.
2. Attempt all questions serially as per question paper.
3. Answer should be neat and clean. Draw a free hand sketch for circuits/tables/schematics wherever required.
4. Scan the whole answer script and check the resolution carefully before upload on the blackboard. Note that answer scripts will be considered for evaluation only through Blackboard. No other mode of submission is acceptable.
5. You are expected to be honest about each attempt which you make to progress in life

SECTION A 40 Marks

S. No.		Marks	CO
Q 1	Explain with the help of logical block diagram the operation of programmable keyboard/display interface ,8279	10	CO3,C O4
Q 2	Explain with the help of a block diagram the operation of programmable interrupt controller 8259	10	CO3,C O4
Q 3	Design an interfacing circuit for interfacing keyboard in the input port of 8085 and a printer in the output port of 8085 using 8255 in mode 0 . Choose input and output port of your choice. The address decoding should be such that the port addresses are FC, FD,FE respectively for port A,B and C and that of control register is FF.The keyboard is connected to port A and the printer is connected to port B. Draw the detailed interfacing diagram showing clearly the connections	20	CO3,C O4

SECTION B 60 Marks

Q 4	Write an ALP to multiply the two numbers stored in memory locations 2050 and 2051h and store the results in 2055 and 2056 h. Write a program in 8085 to enable all the interrupts in 8085 systems	10	CO2
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NOTE : The submission time of the Question Paper Answer Sheet is 24 Hrs from the scheduled time (exceptional provision due to extraordinary circumstance due to COVID-19 and due to internet connectivity issues in the far-flung areas).

No Submission will be entertained after 24 Hrs

Q5	Draw the timing diagram of the instruction , 2000 STA 4000h	10	CO3
Q 6	What are the addressing modes of 8086? Explain with example	10	CO2
Q 7	Explain the operation of 80286 processor with the help of a block diagram	10	CO4
Q 8	With the help of a logical block diagram explain the operation of an ARM processor	10	CO4
Q 9	If the 8085 adds AA h and 80 h , specify the contents of the accumulator and the status of the S,Z, CY flags. In the opcode fetch cycle , what are the control and status signals asserted by the 8085 to enable the memory buffer	10	CO2

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