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| |  |  |  | | --- | --- | --- | | 13EC32P1 | - | MICROPROCESSORS LABORATORY | | | | | | | | |
|  |  | |  | | | | |
| Hours / Week | : | 3 | |  | Day-to-day Evaluation and a test | : | 40 |
| Credits | : | 2 | |  | End Examination Marks | : | 60 |

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| 1. **SUMMATION & BLOCK TRANSFER OF DATA**   a) Write and execute 8086 ALP to add the given series of BCD numbers and show the  result.  b) Write and execute 8086 ALP to transfer a Block of data from one memory location to  another memory location.   1. **MULTIPLICATION & DIVISION**    1. Write and execute 8086 ALP to perform the following multiplications.       1. Using Repeated addition 2) Using SHIFT and ADD instruction    2. Write and execute 8086 ALP to perform the following.       1. Binary division 2) BCD division 2. **SEARCHING & SORTING DATA**    1. Write and execute 8086 ALP to find the minimum and maximum number from a given series of data    2. Write and execute 8086 ALP to arrange the given series of data in ascending order and in descending order 3. **EVALUATION OF MATHEMATICAL EXPRESSION**   Mathematical Expressions   1. a\*b- c/d + e   n   1. ∑ xi  yi   i=1   1. **CODE CONVERSION**    1. Write and execute 8086 ALP to convert HEXA-DECIMAL to BCD number    2. Write and execute 8086 ALP to convert BCD to HEXA-DECIMAL number    3. Write and execute 8086 ALP to convert HEXA-DECIMAL to ASCII number    4. Write and execute 8086 ALP to convert ASCII to HEXA-DECIMAL number 2. **LOGIC CONTROLLER MODULE**   Write and execute 8086 ALP to design the logical expression(3 to 8 Decoder) using Logic controller interface module   1. **STEPPER MOTOR MODULE**   Write and execute 8086 ALP to rotate a stepper motor either in clockwise direction or in anticlockwise direction and to control the speed of rotation   1. **SERIAL INPUT DISPLAY UNIT MODULE(SIDU)**   Write and execute 8086 ALP to display the desired word in a 7-segment display of Serial  Input Display Unit Interface module   1. **PARALLEL INPUT DISPLAY UNIT MODULE (PIDU)**   Write and execute 8086 ALP to design an Up-Counter and Down-Counter using Parallel  Input Display Unit Interface module   1. **DIGITAL TO ANALOG CONVERTER INTERFACE MODULE**   Write an 8086 ALP to generate given waveform through CRO using DAC Interface module |