Microprocessor & Assembly Language Programming
BCSE 2nd Year (2nd Semester), 1st Class Test, Time: 24 Hrs. ; Marks: 30

1. Explain the following instructions with examples. 3+2
   (i) LDAX B (ii) RAR

2. Interface a 2K Byte RAM chip beginning at address $Y000_H$ using a suitable decoder, where 'Y' denotes the last digit of your class roll no. Explain its address decoding technique and find its RAM address range. Assume/generate appropriate signals and pins. 15

3. There are *N* bytes stored in consecutive locations starting from $20XY_H$. The value of *N* is stored in $22XY_H$. Write a program to find the sum of these bytes if their i^{th} bit is '1'. The value of *i* is determined as follows: $i = Y \bmod 8$. Store the result in locations $23XY_H$ and $23X(Y+1)_H$, where 'XY' denotes the last two digits of your class roll no. 10