IIIT BHUBANESWAR
System Programming

Mid Semester,
F.M. – 30

26 February 2016   4th SEMESTER, CSE & IT

Time – 90 minutes

(Answer any five questions including qn no.1)

1. Answer any five qns from qn no 1.   (2x5)

   (a) What do you mean by Systems programming?

   b) What are the various types of System Softwares and application softwares?

   (b) Differentiate between open subroutine and closed subroutine.

   (c) Differentiate between execution time, load time, compile time.

   (d) What are the functions performed by a loader?

   (e) What do you mean by MACRO?

   (f) Differentiate between a half word, full word and a double word.

   (g) What do you mean by a formal system?

   (h) What are the advantages of using a base register in instruction designing?

2. Write in detail about the internal architecture of IBM 360

   machine.   (5)

3. Illustrate the difference between various instruction formats of IBM 360 machine.   (5)

4. Illustrate the following instruction execution with the help of a micro flow chart.   (5)

   AR 5,12

5. Show with examples the meaning, size in bytes and the format of the following instructions .(5)

   LH, STH,M,CL,X,LR

6. Write an ALP for adding a constant value 12 to five consecutive fullwords stored in core memory from 500 address location onwards. Assume R_{11} as the base register containing value 55, R_0 holds value 0 .   (5)