

Post Graduate Govt. College for Girls, Sec-11, Chandigarh

Class: BSc II C. S.

Subject: Computer Organization Paper: B

MM: 75

Time allowed: 3Hrs

Note: *All questions carry equal marks. You have to attempt **two** questions from **Section A** and **two** questions from **Section B**. Section C is **compulsory**.*

SECTION A

- Q1. What is Number system? Discuss its types. What does the base of a number system helps us to determine? (15)
- Q2. Explain various error detection and Correction methods. (15)
- Q3. Elaborate on different types of Flip-Flops and where they are used. (15)

SECTION B

- Q4. What are counters? Explain working of binary counter? (15)
- Q5. Draw a block diagram of control unit of a basic computer and explain its working. (15)
- Q6. What do you understand by memory? Explain the different types of memories available. (15)

SECTION C

- Q7.
- verify using truth table: $(A + cB)(cA + B) = AB + c(AB)$
 - Prove the following by Boolean algebra: $X + (cX + Y) = XY$
 - Draw logic circuit for following Boolean expression: $c(XY + Z) + c(YZ)$
 - $(ABC)_{16} = (?)_8$
 - $(235.7)_8 = (?)_{16}$
 - $(519.25)_{10} = (?)_2$