UNIVERSITY OF CALCUTTA

1. **Answer any four questions :**   4 X 5 = 20
   a) What are input devices ? Give example.
   b) Distinguish between Rom and Ram.
   c) Convert the following Binary code to its equivalent Gary code: 1101
   d) What is the function of PC?
   e) What is the differences between edge triggered and level triggered flip-flop?
   f) What is the differences between EPROM and EEPROM?
   g) Explain the working of a full wave bridge rectifier with diagram?
   h) Explain the working of zener diode as a voltage regulator with diagram?

2. **Answer any four questions :**   4 X 20 = 80
   a) Explain all the generations of computer.
   b) Explain the De Morgan's theorem .
   c) What is CMRR of OPAMP? Draw and explain the working of OPAMP as a Schmitt trigger?
   d) Draw and explain the working of zero crossing detector? State Thevenins theorem?
   e) Design full adder and full subtractor using Decoder.
   f) Design Mod-4 synchronous counter.
   g) Draw the flow chart of instruction cycle.
   h) Explain about addressing mode.