FACULTY OF ENGINEERING AND TECHNOLOGY
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LUCKNOW

Computer System and Programming in 'C'
CS-101/201

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Generation of Computers

First Generation (1942-1955)

- Hardware: Vacuum tubes
- Memory:
  - Primary Memory: Electromagnetic relay
  - Storage: Punched card
- Software: Machine/Assembly Language
- Example: ENIAC, EDVAC, UNIVACI, IBM 701

Second Generation (1955-1964)

- Hardware: Transistors
- Memory:
  - Primary Memory: Magnetic Core
  - Storage: Magnetic Disks
- Software: High Level Programming Language
- Example: Honeywell 400, IBM 7030, UNIVAC LARC

Third Generation (1964-1975)

- Hardware: Integrated Chips (ICs)
  - SSI- 10-20 Components
  - MSI- 100 components
- Memory:
  - Primary Memory: Large Magnetic Core
  - Storage: Larger Capacity Magnetic Disks and Tapes
- Software: HLL (FORTRAN, COBOL , PASCAL, BASIC)
- Example: IBM 360/370, PDP-8, PADP-11, CDC6600

Fourth Generation (1975-1989)

- Hardware: Integrated Chips (ICs)
  - LSI- 30,000 Components
  - VLSI- 1 Million components
- Memory:
  - Primary Memory: Large Semi-conductor memory
  - Storage: Larger Capacity Magnetic Disks
  - Portable Storage: Magnetic Tapes, Floppy Disks
- Software: HLL (C and C++), GUI based OS
- Example: IBM PC, Apple II, TRS-80, VAX 9000

Fifth Generation (1989-Present)

- Hardware: Integrated Chips (ICs)
  - ULSI- 10 Million Components
- Memory:
  - Primary Memory: Large Semi-conductor memory
  - Storage: Larger Capacity Magnetic Disks
  - Portable Storage: Magnetic Tapes, Floppy Disks, Optical Disks and USB Flash drives
- Software: HLL (Java, Python, C#), GUI based OS
- Example: IBM Notebook, Pentium PCs, IBM SP/2

Thank You.

BTQ

BTQ: Brain Teaser Question

Divide 20 by half and add 30, what do you get?