2022 (Nov)
BCA 1st Semester Examination
BCA-101 (New)
Fundamentals of Information Technology

Full Marks: 75
Pass Marks: 30
Time: 3 hours

The figures in the margin indicate full marks for the questions.
Answer all questions.

Part – A

1. Answer *all* questions.   1×10÷10
    i)   What is a memory cell?

    ii)   Define clock speed.
    iii)   Define hypertext.
    iv)   What are Hybrid computers uses for?
    v)   What is the use of FTP?
    vi)   What is cache memory use for?
    vii)   What is a computer network?
    viii)   Define Search Engine with examples.
    ix)   What is a MODEM?
    x)   What are assemblers?

Part – B

2. Answer *any five* from the following: 2×5=10
    a)   Write the characteristics of a computer system.
    b)   What is heat sink?
    c)   What is an address bus? Determine the address bus width of a memory of size 1024×8 bit.
    d)   What is booting?
    e)   What is a positional number system? Name the types of it?
    f)   What is Disk Cleanup Utility?
    g)   Convert a)$(111010.11011)_2$ and b)$(245.63)_8$ to hexadecimal number. A5-CC
    h)   What is Program Counter?

Part – C

3. Answer *any five* out of eight questions.   5×5=25

     a) Explain the functional units of a computer with the help of a block diagram.

     b) Explain the working of a magnetic disk.

     c) Discuss the different types of Rom.

     d) Briefly explain on Single, Dual and Multiple Processors, active and passive heat sink.

     e) Differentiate between application and system software.

     f) Discuss the generation of languages.

     g) Explain ASCII Codes and Unicode.

     h) Describe star and ring topology.

Part – D

4. Answer *any three* of the following questions.   10×3=30

     a) Differentiate between SRAM and DRAM. Discuss impact and Non-impact Printers.

     b) Describe CISC and RISC processor. Explain briefly the different types of CPU register.

     c) Explain briefly about LAN, MAN and WAN. Write short notes on DNS and WWW.

     d) What are the different classes of IP addresses and give the range of each class? Explain the types of transmission media.

     e) Write short notes on the following:

        1. MICR   2. Xeon

        3. Mainframe and super computer

        4. Antivirus   5. BCD

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