

Aryan College

Foundation Course in IT

Unit- 1

Introduction to Computer System

1. Differentiate among a Bit, a Nibble, a Byte and a word. [2017, 2015]
2. What is Hybrid Computer? [2016]
3. Classify modern computers on the basis of size, speed and cost. [2016, 2014]
4. Explain various generations of computers with their advantages and disadvantages. [2016, 2015]
5. Explain Analog, Digital and Hybrid computer. [2015]
6. Draw a block diagram of a computer. Explain the function of each of the blocks. [2015]
7. Write short note on Analog computer. [2015]
8. What do you mean by Vacuum Tube? [2014]
9. Describe features of third Generation computers. [2014]
10. Describe Hybrid computers. [2014]
11. Write a name of computer which was made in first generation computer. [2013]
12. Write an example of analog computer. [2013]

Unit- 2

Input Devices

1. What is OMR? [2017]
2. What are Image scanners? Describe various types of scanners along with their advantages and disadvantages. [2017]
3. What is digitizer? [2016, 2014]
4. Write the names of various types of scanners. [2016]
5. Write short note on: [2015]
 - a. Flatbed Scanner. [2013]
 - b. Joystick
 - c. MICR [2014]
6. What is an optical scanner? Explain how it works. [2015]
7. Describe Hand Held Scanner. [2014]

Unit- 3

Output Devices

1. Define the following:- [2017]
 - a. BIOS
 - b. PDA
 - c. LCD
2. Explain pointing device. [2016]
3. Write short note on Projection Display. [2016]
4. Explain various Hard copy devices with their advantages. [2016]
5. Write short note on: [2015]
 - a. Laser Printer.
 - b. Barcode printer
6. What is the difference between a line printer and a character printer? [2015]
7. Differentiate Impact and Non-Impact printers with examples. [2014]
8. Explain various types of monitors in detail. [2014]
9. What is the unit for measuring printer output quality? [2013]

Unit- 4

Computer Display

1. Distinguish between SVGA and XGA. [2017]
2. What do you mean by user interface. [2016]
3. Explain display adaptor. Also explain any five types of display adaptors. [2016]
4. Write short note on UXGA. [2015]
5. Write short note on following: [2014]
 - a. HGA
 - b. CGA
 - c. EGA

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- d. VGA
6. What do you mean by QVGA. [2013]

Unit- 5

Introduction to Memory

1. What is cache memory? [2017]
2. Distinguish volatile and non-volatile memory [2017]
3. Differentiate RAM, ROM, PROM, and EPROM. [2017, 2014]
4. What is Memory Buffer Register? [2016]
5. Explain Flash Memory. [2016, 2014]
6. Write short note on memory hierarchy. [2016]
7. What is volatile memory? [2015]
8. List any five secondary storage devices/memory. [2015]
9. What is EEPROM? [2015]
10. What is ROM? Describe its various types. [2015]
11. Write short note on DVD. [2015]
12. What is secondary memory? Explain hard disk. [2015]
13. What is memory hierarchy? Name the general classes of storage media that might make up a memory hierarchy. [2015]
14. Give an example of serial access memory. [2014]
15. Differentiate optical disk and magnetic disk with example. [2014]
16. What is a flash memory? Why it is so called? [2013]
17. Differentiate between UVEPROM and EEPROM. [2013]
18. A 5¼ inch optical disk has 3, 00,000 sectors each of 2352 bytes. What is its total storage capacity. [2013]
19. What is a magnetic disk? Explain how data are stored and organized on a magnetic disk. [2013]

Unit- 6

Number System

1. Define the term BCD and EBCDIC. [2017]
2. Convert $(11001100)_2 = (?)_8$ [2017]
3. What do you mean by gray code? [2017, 2014]
4. Define K-map. [2017, 2013]
5. Give the Boolean algebra representation and logic of two input XOR gate with its truth table. [2017]
6. What is Excess-3 code? Explain with suitable example. [2017, 2015]
7. Prepare the truth table and logic diagram for the following Boolean expression: [2017]
 - a. $(A+B).(A+B)$
 - b. $(A.B)+(A.B)$
8. What is number system and Boolean algebra? How many types of number systems are available there? [2017]
9. Write down the full form of EBCDIC. [2016]
10. Convert $1233_4 = ?_8$ [2016]
11. Define logic gate. [2016]
12. Multiply 101101_2 with 11011_2 . [2016]
13. What is X-NOR gate? [2015]
14. The Hexadecimal number system has base is? [2015]
15. Binary equivalent of decimal 8 is. [2015]
16. Explain 1's compliment and 2's compliment. [2015]
17. Write short note on : [2015, 2014]
 - a. ASCII
 - b. BCD
18. Why are combinational circuits more frequently constructed with NAND and NOR gate than with AND, OR and NOT gates? [2015]
19. Convert following numbers to decimal:
 - a. 110110_2
 - b. 111.01_2

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- c. $2A3B_{16}$
d. 247.65_8
20. Write 'De Morgan's Law'. [2014]
21. Subtract $(1111)_2$ from $(100100)_2$. [2014]
22. Explain computer codes. [2014]
23. Prove the following theorem by truth table: [2014]
a. $x.(x+y)=x.y$
b. $x+x.y=x+y$
24. What do you mean by logic gates? Explain various logic gates with block diagrams and truth tables. [2014]
25. Divide $(110110111)_2$ by $(0111)_2$ [2013]
26. Why BCD code was extended to EBCDIC? [2013]
27. Prove the two basic De Morgan's theorems. [2013]
28. What are logic gates? Why NAND and NOR gates are called universal gates? [2013]
29. What is meant by the base of a number system? Give examples to illustrate the role of base in positional number systems. [2013]

Unit- 7

Computer Viruses

1. Define the term "WORM". [2017]
2. What is computer virus? Describe some popular types of computer virus and symptoms to identify them. [2017, 2016]
3. Define computer virus. [2014]
4. Describe symptoms of computer virus infection. [2014, 2013]
5. What do you mean by 'Logic Bombs'? [2013]
6. What is a computer virus? Explain different kinds of viruses with example. [2013]

Unit- 8

Applications of Computer

1. What is the use of computer in following area? [2017]
a. Manufacturing
b. Medicine and health care
c. Communication
d. Scientific

Unit- 9

Internet and WWW

1. Which protocol is more reliable between TCP and UDP? [2017]
2. What is Intranet? [2017, 2013]
3. Write short note on: [2017]
a. Internet Surfing [2013]
b. Browsers
c. Email
4. What is UDP? [2016, 2014]
5. Differentiate between Web Page & Web site. [2016]
6. Write short note on Application Protocol. [2016]
7. Write short note on: [2014]
a. WWW
b. Internet
8. What is a www browser? [2013]
9. What is Domain name and how is it different from an IP address? [2013]
10. Explain in brief different types of protocol use in internet. [2013]

Unit- 10

Data Warehouse

1. Describe data warehouse, its components and advantages and disadvantages of using it. [2017, 2013]

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| 2. Write short note on Data warehouse. | [2016, 2014] |
| 3. Explain various components of Data warehouse. | [2014] |

Unit- 11

Softwares

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| 1. What is the need of Application Software? | [2016] |
| 2. What is program? | [2015] |
| 3. What is algorithm? | [2015] |
| 4. Give the definition of flow chart. | [2015] |
| 5. Write short notes on Programming software. | [2013] |