COMPUTER SCIENCE

HIGHER SECONDARY FIRST YEAR

HIGHER SEC. SCHOOL
BELIEF AND COURAGE

VOLUME -1
ONE MARK
QUESTIONS AND ANSWERS

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CHAPTER 1

INTRODUCTION TO COMPUTERS

1. A computer is a/an _____ machine capable of performing basic operations.
   a) electric b) calculating c) electronic d) mechanical
2. The word 'computing ' means _____
   a) an act of storing b) an act of counting c) an act of adding d) an act of calculating
3. _____ is the first calculating machine used for counting.
   a) Pebbles b) Abacus c) Slide Rule d) Napier's Bones
4. The beads in Abacus represent _____
   a) digits b) numbers c) positions d) decimals
5. In Abacus, the _____ correspond to positions of decimal digits.
   a) beads b) frames c) cords d) rods
6. Abacus was introduced in the year _____
   a) 2000 BC b) 2050 BC c) 2100 BC d) 2500 BC
7. The Napier's Bones was invented by _____
   a) Blaise Pascal b) William c) John Napier d) Charles Napier
8. In Napier's Bones, a set of bones consisted of _____ rods.
   a) 9 b) 10 c) 1 d) 11
9. The Napier's Bones consists of a constant rod for the digit _____
   a) 1 b) 9 c) 0 d) 1 to 9
10. In Napier's Bones, a rod is similar to one column of a _____
    a) addition table b) arithmetic table c) subtraction table d) multiplication table
11. Napier's Bones was invented in _____
    a) 1514 BC b) 1614 AD c) 1614 BC d) 1514 AD
12. The Slide Rule was invented by _____
    a) William Oughtred b) Blaise Pascal c) John Napier d) Charles Babbage
13. The starting point of a slide rule is directly proportional to the _____ of the numbers printed on the rule.
    a) power b) digit c) position d) logarithm
14. The slide rule is embodied by two sets of _____
    a) cords b) rulers c) scales d) rods
15. The Slide Rule was invented in _____
    a) 1533 BC b) 1633AD c) 1614AD d) 1833AD
16. The Rotating Wheel Calculator was developed by _____
    a) Blaise Pascal b) Napier c) John Pascal d) William Oughtred
17. Which one of the following is a predecessor to todays's electronic calculator?
    a) Slide Rule b) Abacus c) Napier's Bones d) Rotating Wheel Calculator
18. The Difference Engine was built by _____
    a) William Oughtred b) John Napier c) Blaise Pascal d) Charles Babbage
19. The Difference Engine was built in the year _____
    a) 1622AD b) 1822 BC c) 1822 AD d) 1833AD
20. _____ is called as the Father of today's computer.
    a)Charles Babbage b) John Napier c) Blaise Pascal d)William Oughtred
21. A tabulating machine using punched cards was designed by _____
    a)William Oughtred b)Charles Babbage c) John Pascal d) Herman Hollerith
22. Hollerith Tabulating Machine is able to read the information on the _____
    a) slide rule b) punched cards c) rods d) scales
23. The first generation of computers used _____ for circuitry
    a) transistors b) chips c) vacuum tubes d) punched cards
24. The first generation of computers used _____for memory.
    a) programs b) magnetic drums c) magnetic tapes d) punched cards
25. First generation computers operated only on_____ language.
    a) machine b) assembly c) high level d) middle level

26. First generation computers could solve _____problem(s) at a time.
a) only one b) two c) many d) multiple
27. Duration of First Generation Computers are _____
a) 1940 - 1950 b) 1941 - 1956 c) 1940 - 1956 d) 1940 – 1955
28. Example for First Generation computer is _____
a) UNIVAC b) ENIVAC c) ENIAC d) both a and c
29. Expansion of UNIVAC is_____
a) Universal Automatic Computer b) Universal Automatic Calculator
c) United Automatic Computer d) Universal Autonomous Computer
30. Expansion of ENIAC is_____
a) Electric Numerical Integrator And Calculator
b) Electronic Numerical Integrator And Computer
c) Electronic Numerical Integrator And Calculator
d) Electric Numerical Integrator And Computer
31. The second generation of computers used _____
a) tapes b) Transistors c) chips d) vacuum tubes
32. _____ generation computers used punched cards for input
a) First b) Second c) both a and b d) None
33. Duration of Second Generation Computers are _____
a) 1956 -1963 b) 1955 - 1960 c) 1940 - 1956 d) 1950 – 1961
34. Second generation computers operated on _____ language.
a) machine b) assembly c) both a and b d) binary
35. Early versions of COBOL and FORTRAN were used in _____ generation computers.
a) First b) Second c) both a and b d) none
36. Second generation computers stored their instructions in their memory using _____ technology.
a) magnetic core b) magnetic drum c) both a and b d) punched card
37. COBOL and FORTRAN are _____ level languages.
a) low b) machine c) middle d) high
38. The third generation computer used the _____
a) integrated circuits b) transistors c) punched cards d) micro processors
39. Duration of Third Generation Computers are _____
a) 1965 -1971 b) 1964 - 1971 c) 1960 - 1971 d) 1964 – 1970
40. Third Generation computers were used _____ instead of punched cards.
a) monitors b) print outs c) chips d) keyboards
41. Third Generation computers were interfaced with _____ which allowed to solve many problems at a time.
a) operation system b) keyboards c) programs d) processor
42. Transistors were made small in size and placed on _____.
a) Copper Plates b) Silicon Chips c) Aluminum Circuits d) None of these
43. Which computers will bridge the gap between the computing and thinking?
a) First Generation b) Second Generation c) Third Generation d) Fifth Generation
44. The _____brought forth the fourth generation of computers
a) monitor b) microprocessor c) program d) operating system
45. Fourth Generation computers could be linked together to form _____
a) processors b) networks c) www d) integrated circuits
46. Duration of Fourth Generation Computers are _____
a) present - beyond b) 1964 - 1971 c) 1960 - 1971 d) 1971 – present
47. Fifth generation computing devices are based on _____
a) wireless b)computing c) internet d) artificial intelligence
48. Fifth generation computers will come close to bridging the gap between _____ and _____.
a) computing, thinking b)thinking, processing c) computing, storing d)processing, storing
49. Computers accept _____ and _____ to perform operations
a) facts, data b) data, procedure c) data, programs d) data, instructions
50. _____ is defined as an un-processed collection of raw facts.
a) fact b) Information c) data d) program

51. _____is a collection of facts from which conclusions may be drawn.
a) procedure b) Information c) data d) program
52. Which of the following statement is false?
a) Data are stored facts b) Data are Business Based
c) Data are Technology Based d) Data are Inactive
53. _____is defined as a step-by-step procedure or formula for solving a problem.
a) flowchart b) coding c) program d) algorithm
54. Computer _____ is designed to systematically solve a problem
a) data b) Information c) program d) memory
55. Raw data is processed by the computer into_____
a) fact b) Information c) program d) memory
56. Which of the following statement is false?
a) Information is Processed facts b) Information is Business Based
c) Information is stored facts d) Information is active
57. _____is an act of defining a problem, understanding the problem and arriving at workable solutions.
a) developing b) designing c) program writing d) problem solving
58. A computer system has two major components, hardware and_____
a) software b) storage c) processor d) operating system
59. _____refers to all the physical items associated with a computer system.
a) processor b) hardware c) software d) device
60. _____is a set of instructions, which enables the hardware to perform a specific task.
a) software b) Information c) program d) procedure
61. Processing a computer is performed by _____
a) programmer b) software c) program d) hardware
62. _____devices allows the user to enter the program and data
a) control b) Input c) hardware d) output
63. The_____ is more formally known as the CPU.
a) system b) computer c) processor d) storage
64. CPU means_____
a) Central Processing Unit b) Control Processing Unit
c) Central Process Unit d) Central Programming Unit
65. The _____ actually executes computer instructions.
a) hardware b) CPU c) program d) memory
66. Main memory is also called as _____memory.
a) auxiliary b) flash c) primary d) secondary
67. _____ memory is volatile in nature.
a) primary b) secondary c)flash d) auxiliary
68. _____devices show the processed data – information – the result of processing
a) input b) storage c) connection d) Output
69. In _____ storage, data and programs are permanently stored for future use.
a) primary b) secondary c)flash d) auxiliary
70. The hardware devices attached to the computer are called_____
a) instrument b) network c) equipment d) peripheral equipment
71. _____ refers to a program that makes the computer to do something meaningful.
a) procedure b) software c) process d) coding
72. _____software consists of general programs written for a computer.
a) Application b) Computer c) System d) both a and c
73. System software serves as the interface between hardware and the_____.
a) user b) language c) process d) memory
74. Which one of the following is not system software?
a) utility programs b) spread sheet c) compiler d) operating system
75. The most important type of system software is the _____.
a) utility programs b) interpreter c) compiler d) operating system

76. _____is an integrated set of specialized programs that is used to manage the overall operations of a computer.
a) utility programs b) interpreter c) compiler d) operating system
77. Which software serves as the interface between the user and Hardware?
a) System software b) Application software and software programs
c) Software programs d) System software and Application software
78. _____acts like an interface between the user, computer hardware and software.
a) system software b) utility programs c) compiler d) operating system
79. DOS means _____
a) Data Operating System b) Disk Operating System
c) Disk Operation System d) Disk Operating Software
80. Which one of the following is not an operating system?
a) DOS b) LINUX c) WINDOWS d) COBOL
81. The _____translates the source program into an object program.
a) word processor b) translator c) compiler d) utility program
82. _____Programs support the computer for specific tasks like file copying, sorting, linking a object program, etc.
a) Application b) utility c) translation d) spreadsheet
83. _____software lets you create, edit, format, store and print text and graphics.
a) Spreadsheet b) Database c) Utility d) Word processor
84. Which is not a commonly used word processors?
a) Microsoft Word b) Microsoft Excel c) WordPerfect d) WordStar
85. _____software packages allow the user to manipulate numbers.
a) Spreadsheet b) Database c) Utility d) Word processor
86. Which is commonly used spreadsheet software?
a) Microsoft Word b) Microsoft Excel c) Lotus1-2-3 d) both b and c
87. A database management system is a collection of _____
a) procedure b) programs c) processes d) codings
88. _____enables to store, modify and extract information from a database.
a) Word processer b) spreadsheet c) software d) database management system
89. _____Computer is a computing device that works on continuous range of values.
a) digital b) hybrid c) analog d) micro
90. The analog computers give _____ results
a) accurate b) exact c) wrong d) approximate
91. _____ computers generally deals with physical variables such as voltage, pressure, temperature, speed, etc
a) digital b) hybrid c) analog d) micro
92. _____computer operates on digital data such as numbers 0s and 1s
a) digital b) hybrid c) analog d) micro
93. Digital computer uses _____numbers.
a) decimal b) octal c) binary d) all of these
94. DBMS means_____
a) Data Management System b) Database Maintenance System
c) Database Management System d) Database Management Software
95. _____ computers are made for both general purpose and special purpose.
a) digital b) hybrid c) analog d) micro
96. A ____ computing system is a combination of desirable features of analog and digital computers.
a) digital b) hybrid c) analog d) mainframe
97. _____ computers are mainly used for specialized tasks.
a) digital b) hybrid c) analog d) mainframe
98. It is mostly used for automatic operations of complicated physical processes and machines.
a) digital b) hybrid c) analog d) mainframe
99. _____Computers can give the results with more accuracy and at a faster rate.
a) digital b) hybrid c) analog d) micro
100. Super computer process_____ instructions per second.
a)100 million b) billion c) 10 million d) 1 million

101. _____computers are the computers normally used to solve intensive numerical computations.
a) digital b) micro c) analog d) super
102. _____ computers are used to process large amount of data quickly.
a) digital b) micro c) analog d) super
103. Which computers were developed with the objective of bringing out low cost computers?
a) Minicomputer b) Microcomputer c) Analog computer d) Laptop computer
104. _____ computers are lower to mainframe computers, in terms of speed and storage capacity
a) Minicomputer b) Microcomputer c) Analog computer d) Laptop computer
105. The mightiest computers and the most expensive computers are called as _____ computers.
a) digital b) micro c) mainframe d) super
106. The invention of microprocessor (single chip CPU) gave birth to the _____computers.
a) digital b) hybrid c) analog d) micro
107. Which one of the following is not a microcomputer?
a) Workstation b) Home computer c) Laptop computer d) Mini computer
108. _____ are also desktop machines mainly used for intensive graphical applications.
a) PCs b) Workstations c) PDAs d) Laptops
109. Which of the following is an application of Workstation?
a) Computer Aided Design b) simulation of complex systems
c) visualizing the results of simulation d) All of these
110. Desktop computers are also Known as_____
a)Home computer b) Laptop computer c) Minicomputer d) Micro computer
111. _____ computers are portable computers that fit in a briefcase.
a) PCs b) Workstations c) PDAs d) Laptop
112. _____ computers often used for word processing and small database applications.
a) super b) mainframe c) analog d) personal
113. Laptop computers, also called _____ computers.
a)Home b) desktop c) notebook d) Palm PCs
114. _____ computers use a pen like stylus and accept handwritten input directly on a screen.
a) Pen-based b) desktop c) notebook d) Palm PCs
115. Pen-based computers are also called _____(PDA).
a) Personal Data Assistants b) Pocket Digital Assistants
c) Palm Digital Assistants d) Personal Digital Assistants
116. Which one is a partner in every sphere of human life and activity?
a) education b) computer c) government d) school
117. The electronic computers are classified based on their _____
a) configuration b) Principles of operation c) both a and b d) software
118. The data which are not broken into bits _____
a) digital b) decimal c) analog d) audio

ANSWERS

1 - c	2 - d	3 - b	4 – a	5 -c	6 - d	7 – c	8 - b	9 - c	10 - d
11 - b	12 - a	13 - d	14 - c	15 – b	16 - a	17 - d	18 - d	19 - c	20 -a
21 - d	22 - b	23 -c	24 - b	25 - a	26 - a	27 - c	28 - d	29 -a	30 - c
31 –b	32-c	33 - a	34 – b	35 – b	36 -a	37-d	38 - a	39 –b	40 – d
41 –a	42-b	43 - d	44 – b	45 – b	46 -d	47-d	48 - a	49 – d	50 – c
51 -b	52-b	53 - d	54 – c	55 – b	56 -c	57-d	58 - a	59 – b	60 – a
61 -d	62-b	63 - c	64 – a	65 – b	66 -c	67-a	68 - d	69 – b	70 – d
71 -b	72-c	73 - a	74 – b	75 – d	76 -d	77-a	78 - d	79 – b	80 – d
81 -c	82-b	83 - d	84 – b	85 – a	86 -d	87-b	88 - d	89 – c	90 – d
91 -c	92-a	93 - c	94 –c	95 – a	96 -b	97-b	98 - b	99 – a	100 – b
101 – d	102 – d	103 – a	104 – a	105 –d	106 – d	107 – d	108 – b	109 – d	110 – a
111 – d	112 – d	113 – b	114 – a	115 –d	116 – b	117 – c	118 –c		

CHAPTER 2

NUMBER SYSTEMS

1. Which data usually consist of standard alphabetic, numeric, and special characters?
   a) variable b) text c) character d) graphics
2. The _____data consist of still pictures such as drawings and photographs.
   a) digital b) text c) character d) graphics
3. Data can be classified into two forms, _____ data and _____ data.
   a) text, graphics b) alphabet, number c) analog , digital d) text, audio
4. _____data can have any value within a defined range and it is continuous.
   a) digital b) analog c) image d) audio
5. _____ is an example of analog data.
   a) Sound waves b) telephone signals c) temperatures d) all of these
6. _____data can be represented by a series of binary numbers and it is discrete.
   a) digital b) text c) analog d) graphics
7. Which unit of the computer performs arithmetic and logical operations on data?
   a) Input unit b) Control unit c) Memory unit d) Arithmetic and Logic Unit
8. Computer arithmetic is commonly performed on two different types of numbers, _____ and _____ .
   a) decimal, binary b) integer, fraction c) analog, digital d) integer, floating point
9. In computer arithmetic, an integer is a whole number and the _____number has a fractional part.
   a) decimal b) binary c) floating-point d) whole
10. Both the main memory and the hard disk capacities are measured in terms of _____
    a) bits b) bytes c) words d) numbers
11. Which is the most commonly used numbering system?
    a) decimal b) binary c) octal d) hexadecimal
12. A bit is small piece of data that is derived from the words _____ _____.
    a) binary digital b) binary digits c) basic digits d) binary decimal
13. Bits have only two possible values____ and ____
    a) 0 and 10 b) 1 or 10 c) 0 and 1 d) 000 and 111
14. A collection of 8 bits is called as a _____
    a) byte b) digit c) octal d) word
15. With 8 bits in a byte, we can represent 256 values ranging from ___ to ____
    a) 0 to 256 b) 1 to 256 c) 1 to 255 d) 0 to 255
16. _____are used to represent characters in a text.
    a) bits b) bytes c) words d) numbers
17. The most commonly used coding scheme is _____
    a) decimal b) binary c) ANSI d) ASCII
18. ASCII means _____
    a) American Standard Code for Interchange Information
    b) American Standard Character for Information Interchange
    c) American Standard Code for Information Interchange
    d) American Standard Code for Information Institute
19. What is the ASCII value for a blank space?
    a) 30 b) 32 c) 31 d) 35
20. The ASCII value of numeric 0 is_____.
    a) 32 b) 45 c) 47 d) 48
21. The range of ASCII values for lower case alphabets is from ____ to ___
    a) 97 to 120 b) 90 to 122 c) 97 to 122 d) 95 to 122

22. The range of ASCII values for the upper case alphabets is ___ to ____.
a) 67 to 90 b) 65to 90 c) 65 to 97 d) 97 to 122
23. Computer memory is normally represented in terms of ___bytes or __ bytes
a) Kilo, Mega b) Giga, Tera c) Kilo, Giga d) Mega, Giga
24. How many bytes represent one Kilobyte in binary system?
a) 1020 b) 1024 c) 100 d) 1042
25. The numbers in the binary system are represented to the base _____
a) ten b) eight c) two d) sixteen
26. The leftmost bit in the binary number is called as _____
a) LSB b) MBS c) LBS d) MSB
27. The rightmost bit in the binary number is called as _____
a) LSB b) MBS c) LBS d) MSB
28. In a binary number, _____has the largest positional weight.
a) LSB b) MSB c) LBS d) MBS
29. In a binary number, _____has the smallest positional weight.
a) LSB b) MBS c) LBS d) MSB
30. MSB means _____
a) Most Significant Byte b) Most Significant Bit
c) Mean Significant Bit d) Most Sign Bit
31. LSB means _____
a) Less Significant Byte b) Less Significant Byte
c) Least Significant Bit d) Least Sign Bit
32. A decimal number can be converted into a binary number by adding up the powers of ___
a) 10 b) 2 c) 16 d) 8
33. Which number system is more efficient in representing numbers in digital applications?
a) decimal b) binary c) octal d) Hexadecimal
34. _____ occupies less memory space for storing large numbers in computers.
a) decimal b) binary c) octal d) Hexadecimal
35. A hexadecimal number is represented using base _____
a) 10 b) 2 c) 16 d) 8
36. In the hexadecimal number system, the binary digits are grouped into sets of ____bit(s).
a) 4 b) 2 c) 1 d) 8
37. In the hexadecimal number system, ____ symbols are used, from ____ to ____
a) 8, 0 to 7 b) 2, 0 to 1 c) 10, 0 to 9 d) 16, 0 to F
38. The hexadecimal number 'D' is written as _____ in decimal.
a) 14 b) 12 c) 11 d) 13
39. The hexadecimal number 'F' is written as _____ in decimal.
a) 15 b) 1111 c) 16 d) 14
40. The hexadecimal representation is more compact than _____representation.
a) decimal b) binary c) octal d) fractional
41. An _____number is represented using base 8.
a) decimal b) binary c) octal d) Hexadecimal
42. Decimal numbers' conversion to hexadecimal is similar _____ conversion.
a) decimal b) binary c) octal d) digital
43. Octal representation is just a simple extension of _____ and _____ representations.
a) binary, decimal b) binary, hexadecimal c) decimal, real d) decimal, hexadecimal
44. Octal number system is using only the digits ___ to ___.
a) 1 to 8 b) 1 to 7 c) 0 to 7 d) 0 to 8
45. If the leftmost bit of signed number is 0, then the number is____ .
a) negative b) positive c) binary d) decimal

46. If the leftmost bit of signed number is 1, then the number is _____.
a) negative b) positive c) binary d) decimal

47. The simplest form of representing a negative integer is the ____+ _____representation.
a) negative + positive b) sign + positive c) sign + negative d) sign + magnitude
48. In a sequence of n bits, the _____bit is used for sign.
a) left b) leftmost c) right d) rightmost
49. In a sequence of n bits, the remaining n-1 bits are used to hold the _____of the integer.
a) negative b) sign c) negative d) magnitude
50. In a sequence of n bits, the leftmost bit is used for _____
a) negative b) sign c) negative d) magnitude
51. In a sequence of n bits, the remaining ____bits are used to hold the magnitude of the integer.
a) n bits b) (n + 1) bits c) 2 bits d) (n - 1) bits
52. The most efficient way of representing a signed integer is a _____representation
a) decimal b) binary c) 1's complement d) 2's-complement
53. Digital arithmetic usually means _____ arithmetic.
a) unary b) binary c) signed d) unsigned
54. The value of 100110 in 2's complement is _____.
a) 111010 b) 011011 c) 011010 d) 011001
55. When two digits are added, _____ digit is generated when the result is larger than what can be contained in one digit.
a) sum digit b) addend c) sign digit d) carry digit
56. In unsigned binary addition, the two operands are called _____ and _____.
a) augend, addend b) addend, auged c) signed, unsigned d) signed, minuend
57. In an unsigned binary addition, _____is the number in an addition operation to which another number is added.
a) augend b) carry c) addend d) sum
58. In an unsigned binary addition, _____is the number in an addition operation that is added to another.
a) augend b) carry c) addend d) sum
59. On any binary addition, the result may be larger than the word size being used would result _____
a) error b) overflow c) flow d) zero
60. In a signed number, the most significant bit (MSB) is a _____bit.
a) unary b) carry c) sign d) unsigned
61. _____and ____ are the two operands in an unsigned binary subtraction.
a) augend, addend b) augend, subtrahend c) signed, unsigned d) subtrahend, minuend
62. The_____ is the number in a binary subtraction operation from which another number is subtracted.
a) augend b) minuend c) addend d) subtrahend
63. The _____is the number in a binary subtraction that is subtracted from another number.
a) augend b) minuend c) addend d) subtrahend
64. _____ is a mathematical discipline that is used for designing digital circuits in a digital computer.
a) Binary arithmetic b) Boolean theory c) Binary algebra d) Boolean algebra
65. _____describes the relation between inputs and outputs of a digital circuit.
a) Binary arithmetic b) Boolean theory c) Binary algebra d) Boolean algebra
66. Boolean algebra describes the relation between _____and _____of a digital circuit.
a) inputs, outputs b) binary, decimal c) inputs, memory d) memory, outputs
67. _____ proposed the basic principles of this algebra.
a) Charles Babbage b) George Boole c) Geroge Boolean d) Blaise Boole
68. A _____ is a variable having only two possible values such as, true or false
a) logical b) literal c) boolean d) argument
69. The basic logical operations are _____, ____ and _____
a) ADD, SUB, MUL b) AND, NOT, NOR c) OR, NOR, XOR d) AND, OR, NOT

70. A Boolean expression is a combination of boolean _____, boolean _____and the logical operators.
a) variables, tables b) variables, constants c) tables, constants d) variables, values
71. There are no _____ or fractional numbers in Boolean Algebra.
a) positive b) negative c) real d) decimal
72. The operation _____ yields true only if both of its operands are true.
a) AND b) OR c) NOT d) NAND
73. The operation _____ yields true if either or both of its operands are true.
a) AND b) OR c) NOT d) NAND
74. The unary operation ____ inverts the value of its operand.
a) AND b) OR c) NAND d) NOR
75. The basic logical operations can be defined in a form known as _____
a) boolean table b) boolean algebra c) truth table d) logical gates
76. The AND operator in Boolean algebra is represented by ____operator.
a) plus b) dot c) minus d) minus
77. AND operator in Boolean algebra is similar to _____ in ordinary algebra.
a) addition b) subtraction c) multiplication d) division
78. The 2-input AND operation in Boolean algebra is expressed as _____
a) $Y = A + B$ b) $Y = A . B$ c) $Y = \overline{A . B}$ d) $Y = \overline{A + B}$
79. The ____ sign is used to indicate the OR operator.
a) plus b) dot c) minus d) minus
80. The 2-input OR operation is expressed as_____
a) $Y = \overline{A + B}$ b) $Y = A . B$ c) $Y = \overline{A . B}$ d) $Y = A + B$
81. The _____ operator has one input and one output
a) AND b) OR c) NOT d) NAND
82. The NOT operator is represented in the Boolean expression as _____
a) $Y = A$ b) $Y = \overline{A}$ c) $Y = A + 1$ d) $Y = - A$
83. The NAND is the combination of _____ and _____
a) NOT, AND b) NOT, OR c) NOT, NAND d) NOT, NOR
84. The algebraic expression of the NAND function is _____
a) $Y = A + B$ b) $Y = \overline{A . B}$ c) $Y = A . B$ d) $Y = \overline{A + B}$
85. The _____ is the combination of NOT and OR.
a) AND b) OR c) NOT d) NOR
86. The algebraic expression of the NOR function is_____
a) $Y = A + B$ b) $Y = \overline{A . B}$ c) $Y = A . B$ d) $Y = \overline{A + B}$
87. In Laws of Complementation, if $A = 1$, then $\overline{A} =$ _____
a) 1 b) 0 c) A d) -1
88. In basic properties of OR operator, $A + A =$ _____
a) 1 b) 0 c) A d) -1
89. _____is the appearance of a variable or its complement in a Boolean expression.
a) product b) literal c) function d) operation
90. A _____ is a product term, which includes all possible variables either complemented or uncomplemented.
a) maxterm b) minterm c) sumterm d) literal
91. A _____ is a term in a Boolean expression where one or more literals are connected by OR operators.
a) maxterm b) minterm c) sumterm d) literal
92. Which sum term includes all possible variables in true or complement form in a Boolean expression?
a) maxterm b) minterm c) sumterm d) literal
93. In the commutative law of binary expression, $A + B =$ _____
a) $A - B$ b) $A + B$ c) $B + A$ d) $A * B$
94. The range of unsigned integers in an n-bit system is from _____to _____.
a) 1 to $2^n - 1$ b) 0 to 2^n c) 0 to $2n - 1$ d) 0 to $2^n - 1$

95. In a 4-bit system, the range of unsigned integers is from ___ to ___
a) 0 to 16 b) 1 to 16 c) 0 to 15 d) 1 to 15
96. In case of signed integer, the range of positive values in a 4-bit system is from ____ to _____
a) 1 to 2^{n-1} - 1 b) 0 to 2^{n-1} - 1 c) 0 to 2^{n-1} + 1 d) 1 to 2^{n-1} + 1
97. In case of signed integer, the range of negative values in a 4-bit system is from ____ to _____
a) 1 to 2^{n-1} b) -1 to 2^{n-1} - 1 c) -1to 2^{n-1} + 1 d) -1 to -2^{n-1}
98. In a 4-bit system, the range of signed integers is from ___ to _____
a) -7 to +8 b) -8 to +7 c) -8 to +8 d) -7 to +7
99. In a 4-bit system, the range of unsigned integers is from _____ to _____ in binary form
a) 1 to 15 b) 0 to 15 c) 0000 to 1111 d) 0000 to 1000
100. The 2's complement of 0 is _____
a) 1 b) 0 c) 10 d) 11
101. The arithmetic operations in a digital computer are performed using the radix ——, ———
a) 10, 16 b) 10, 8 c) 2, 8 d) 2, 10
102. One million bytes are referred to as MB and one billion bytes are referred to as ———
a) TB b) GB c) KB d) 2 MB
103. The exponent of the smallest power of 2 that is larger than 68 is _____
a) 72 b) 64 c) 120 d) 128
104. The exponent of the power of 2 that is smaller than 40 is _____
a) 32 b) 64 c) 38 d) 42
105. _____is a list of all possible input values and the output response for each input combination.
a) Boolean algebra b) logical gate c) truth table d) function
106. Which one is the capacity for the computer memory?
a) Kilo Bytes b) Bytes or Kilo bytes c) Kilo Bytes or Mega Bytes d) Mega Bytes or Bytes
107. The binary value of 0.6875_{10} is _____
a) 0.1001_2 b) 0.1101_2 c) 0.1011_2 d) 1.1011_2

ANSWERS

1 - b	**2 - d**	**3 - c**	**4 - b**	**5 - d**	**6 - a**	**7 - d**	**8 - d**	**9 - c**	**10 - b**	**11 - a**	**12 - b**	**13 - c**	**14 - a**	**15 - d**
16 - b	**17 - d**	**18 - c**	**19 - b**	**20 - d**	**21 - c**	**22 - b**	**23 - a**	**24 - b**	**25 - c**	**26 - d**	**27 - a**	**28 - b**	**29 - a**	**30 - b**
31 - c	**32- b**	**33 - d**	**34 - d**	**35 - c**	**36 – a**	**37 - d**	**38 - d**	**39 - a**	**40 - c**	**41 - c**	**42 - b**	**43 - a**	**44 - c**	**45 - b**
46 - a	**47 - d**	**48 - b**	**49 - d**	**50 - b**	**51 – d**	**52 - d**	**53 - b**	**54 - c**	**55 - d**	**56 - a**	**57 - a**	**58 - c**	**59 - b**	**60 - c**
61 - d	**62 - b**	**63 - d**	**64 - d**	**65 - d**	**66 – a**	**67 - b**	**68 - c**	**69 - d**	**70 - b**	**71 - b**	**72 - a**	**73 - b**	**74 - d**	**75 - c**
76 - b	**77 - c**	**78 - b**	**79 - a**	**80 - d**	**81 – c**	**82 - b**	**83 - a**	**84 - b**	**85 - d**	**86 - d**	**87 - b**	**88 - c**	**89 - b**	**90 - b**
91 - c	**92 - a**	**93 - c**	**94 - d**	**95 - c**	**96 – b**	**97 - d**	**98 - b**	**99 - c**	**100-b**	**101-d**	**102-b**	**103-d**	**104-a**	**105-c**
106-c	**107-c**													

CHAPTER 3

COMPUTER ORGANIZATION

1. The computer requires _____ to perform an assigned task.
   a) hardware b) software c) user d) function
2. CPU is called the _____of the computer.
   a) head b) gate c) brain d) path
3. _____reads and executes program instructions, performs calculations and makes decisions.
   a) CPU b) computer c) memory d) system
4. A computer system is the integration of physical entities called _____.
   a) software b) bus c) device d) hardware
5. A computer system is the integration of non-physical entities called _____.
   a) software b) bus c) device d) hardware
6. The software should be designed to minimize the amount of idle _____time.
   a) hardware b) input c) output d) computer
7. _____stores the data and program and retrieve as and when required the hardware.
   a) hardware b) input c) output d) computer
8. Hardware components can be classified into _____ main units.
   a) two b) three c) four d) five
9. A computer uses _____ devices to accept the data and program.
   a) memory b) input c) output d) storage
10. _____devices take machine coded results from the processor and convert them into a form that can be used by human beings.
    a) memory b) input c) output d) storage
11. In modern computers, _____and _____are the commonly used output devices.
    a) monitors, printers b) keyboard, mouse c) keyboard, monitor d) mouse, printers
12. CPU consists of arithmetic and logic units, _____and internal memory.
    a) memory unit b) input unit c) output unit d) control unit
13. The _____unit of the CPU coordinates the action of the entire system.
    a) control unit b) input unit c) output unit d) memory unit
14. _____ is a pathway between any two components of the computer system.
    a) cable b) bus c) board d) circuit
15. _____allows for the data transfer between any two components of the computer.
    a) cable b) bus c) board d) circuit
16. The instructions and data are stored in the ____ memory.
    a) main b) secondary c) high d) flash
17. The _____can directly fetch and execute the instruction from the main memory.
    a) control unit b) processor c) output unit d) hard disk
18. In _____, the computer stores the program and data that are currently being used.
    a) main memory b) input unit c) secondary memory d) output unit
19. _____devices are also called as auxiliary memory devices.
    a) primary b) input c) control d) secondary storage
20. The stored program concept is also known as _____ concept
    a) Blaise-Pascal b) John-Napier c) Von-Neumann d) Von-Boole
21. _____concept is the basic operating principle for every computer
    a) data program b) stored program c) system program d) storage program
22. The functions of the CPU are mainly classified into _____ categories.
    a) five b) three c) four d) two

23. The CPU has ____ major components.
a) two b) three c) four d) five
24. _____is the part of CPU where actual computations take place.
a) control unit b) input unit c) memory unit d) Arithmetic and logic unit
25. The _____unit directs and controls the activities of the computer system.
a) control unit b) input unit c) output unit d) memory unit
26. ALU takes data from the temporary storage area inside the CPU named____.
a) address b) cache c) registers d) prime memory
27. _____ are high-speed memories which hold data for immediate processing.
a) addresses b) cookies c) registers d) storages
28. The CPU is controlled by a list of _____instructions.
a) computer b) input c) memory d) software
29. Software instructions are initially stored in_____ memory storage device.
a) temporary b) cache c) secondary d) main
30. When a program is executed, instructions flow from the main memory to the CPU through the_____
a) control unit b) bus c) input unit d) ALU
31. When a program is executed, instructions flow from the _____memory to the ____
a) secondary, CPU b) input, CPU c) main, CPU d) CPU, main
32. The _____ is the computer's calculator.
a) ALU b) CPU c) RAM d) both a and c
33. The ALU functions are directly controlled by the _____ unit.
a) control b) memory c) input d) output
34. The _____operation compares numbers, letters and special characters.
a) arithmetic b) mathematical c) logical d) digital
35. The _____ operations include addition, subtraction, multiplication and division.
a) arithmetic b) mathematical c) logical d) digital
36. _____ units are the storage areas in a computer
a) control b) memory c) input d) output
37. The word "memory" usually refers to the _____ memory of the computer.
a) main b) secondary c) volatile d) permanent
38. The word "_____" is used for the memory that exists on disks, CDs, floppies or tapes.
a) main b) primary c) volatile d) storage
39. The main memory is usually called a _____ memory.
a) physical b) permanent c) secondary d) cache
40. Physical memory which refers to the ____ capable of holding data and instruction.
a) register b) circuit c) chip d) cache
41. In physical memory, _____ is called as a "chip".
a) Integrated Circuit b) Silicon c) Bus d) signal
42. RAM stands for _____.
a) Random Active Memory b) Random Access Memory
c) Read Access Memory d) Random Address Memory
43. The expansion of ROM is _____
a) Reading Only Memory b) Random Only Memory
c) Read Output Memory d) Read Only Memory
44. PROM stands for _____.
a) Programmable Read-Only Memory b) Process Read-Only Memory
c) Program Read-Only Memory d) Programmable Random-Only Memory
45. EPROM stands for _____.
a) Erasable Programmable Read-Only Memory b) Erasable Programmable Random Memory
c) Executable Program Read-Only Memory d) Execute Programmable Read-Only Memory

46. EEPROM stands for _____
a) Electronically Erasable Programmable Read-Only Memory
b) Electrically Erasable Programmable Read-Only Memory
c) Electrically Executable Programmable Read-Only Memory
d) Electrically Erasable Program Read-Only Memory

47. _____ is a volatile form of memory.
a) RAM b) Hard disk c) ROM d) EPROM

48. _____ is the most common type of memory found in the modern Computers.
a) ROM b) Hard disk c) RAM d) EPROM

49. When the CPU runs a program, it fetches the program instructions from the _____.
a) EPROM b) PROM c) ROM d) RAM

50. The information is burnt (pre-recorded) into the ROM chip at time.
a) playing b) purchasing c) manufacturing d) storing

51. Once data has been written into a _____ chip, it cannot be erased
a) ROM b) RAM c) EPROM d) both a and c

52. _____ is a non-volatile memory
a) RAM b) PROM c) ROM d) both b and c

53. _____stores critical programs such as the program that boots the computer.
a) RAM b) Hard disk c) ROM d) EPROM

54. _____ is a memory on which data can be written only once.
a) RAM b) Hard disk c) PROM d) both a and b

55. _____ is used to erase the contents of the EPROM.
a) burning b) ultraviolet light c) Infra red rays d) solar light

56. Each location in a memory has a unique number called its _____
a) register address b) identifier c) variable d) memory address

57. Operations on memories are called _____ and _____
a) reads, writes b) copy, paste c) input, output d) store, print

58. A _____instruction transfers information from other device to memory.
a) read b) write c) update d) copy

59. A _____instruction transfers information from the memory to other devices.
a) read b) write c) update d) copy

60. _____ refers to how quickly the memory can respond to a read or write request.
a) Request time b) write time c) Read time d) Access time

61. Access time is also known as response time or _____
a) write time b) latency c) cycle time d) read time

62. _____refers to the minimum period between two successive requests.
a) latency b) access time c) update time d) cycle time

63. The memory closest to the processor is known as a _____.
a) RAM b) ROM c) cache d) prime memory

64. _____ memory is a long term non-volatile memory.
a) secondary b) primary c) physical d) cache

65. _____is a high speed memory that is much faster than the main memory.
a) secondary b) primary c) physical d) cache

66. _____memory supplements the main memory.
a) secondary b) primary c) physical d) cache

67. The main function of a computer system is to _____ data.
a) store b) input c) process d) display

68. An _____ device is used to feed data into a computer.
a) output b) peripheral c) physical d) input

69. The most common input device is _____
a) monitor b) mouse c) keyboard d) speaker

70. The keyboard detects the key pressed and generates the corresponding _____codes.
a) digital b) ANSI c) Character d) ASCII
71. _____ is an input device that controls the movement of the cursor on the display screen.
a) keyboard b) scanner c) mouse d) MICR
72. _____ is an input device that allows information such as an image or text to be input into a computer.
a) keyboard b) scanner c) mouse d) MICR
73. _____are useful for publishing and multi-media applications.
a) keyboard b) scanner c) mouse d) MICR
74. A _____ is a pattern printed in lines of different thickness.
a) key code b) number code c) bar code d) magnetic code
75. _____ is an input device mainly used to capture images.
a) keyboard b) scanner c) mouse d) digital camera
76. _____is a pointing device that enables the user to interact with the computer by touching the screen.
a) MICR b) scanner c) mouse d) Touch sensitive screen
77. MICR stands for _____
a) Magnetic Ink Code Recognition b) Magnetic Ink Character Recognition
c) Magnetic Ink Character Reader d) Magnetic Information Character Recognition
78. _____ is widely used by banks to process cheques.
a) Bar code b) OMR c) OCR d) MICR
79. OCR means _____
a) Octal Character Recognition b) Optical Character Recognition
c) Optical Character Reader d) Optical Code Recognition
80. _____technique permits the direct reading of any printed Character
a) Bar code b) OMR c) OCR d) MICR
81. OMR stands for _____
a) Optical Mark Reading and Recognition b) Optional Mark Reading and Recognition
c) Optical Market Reading and Recognition d) Optical Mark Reading and Recognition
82. In _____special pre-printed forms are designed with boxes which can be marked with a dark pencil or ink.
a) Bar code b) OMR c) OCR d) MICR
83. _____are widely used in applications like objective type answer papers evaluation.
a) Bar code b) OMR c) OCR d) MICR
84. _____ is a pointing device shaped like a pen and is connected to a monitor.
a) light pen b) OMR c) OCR d) mouse
85. All the credit cards, ATM cards, petro cards, etc. stores data in a _____.
a) Bar code b) chip c) magnetic strip d) optical mark
86. _____ is an input device that stores data in a microprocessor embedded in the card.
a) ATM card b) smart card c) petro card d) ID card
87. _____ is a device that captures natural handwriting on any surface onto a computer.
a) Pen drive b) Touch screen c) OCR d) Notes taker
88. Using _____, the notes taker displays the user's handwritten notes, memos or drawings on the computer.
a) electronic pen b) pen drive c) OMR d) MICR
89. _____captures the voice data and input to the computer.
a) CD b) scanner c) microphone d) speaker
90. _____ is a commonly used output device.
a) CD b) monitor c) keyboard d) speaker
91. Initially there were only _____monitors.
a) black color b) colour c) monochrome d) RGB
92. The smallest dot that can be displayed is called a _____
a) picture b) pixel c) resolution d) HD
93. Pixel means _____
a) power element b) point element c) picture entry d) picture element

94. The resolution of the screen improves as the number of pixels is increased is called_____
a) aspect unit b) display ratio c) aspect ratio d) clarity
95. Printing text or images on paper is known as _____.
a) print out b) soft copy c) document d) hard copy
96. The two main types of printers are _____ printers and _____ printers.
a) hard, soft b) laser, inkjet c) dot, line d) impact, non-impact
97. _____ printers include all printers that print by striking an ink ribbon.
a) hard b) impact c) non-impact d) drum
98. _____printers are examples of impact printers.
a) dot matrix b) line c) ink jet d) both a and b
99. Laser printers, inkjet printers and thermal printers are examples of _____ printers.
a) hard b) impact c) non-impact d) drum
100. A line printer can print _____ lines to ____ lines per minute.
a) 150 - 3000 b) 100 - 3000 c) 150 - 2000 d) 1000 - 3000
101. _____printer can print only one font and cannot print graphics.
a) laser b) line c) non-impact d) both a and c
102. The most popular serial printer is the _____printer.
a) ink jet b) drum c) dot matrix d) laser
103. Dot matrix printer prints one line of ___ or ____ points at a time.
a) 5 or 15 b) 10 or 14 c) 8 or 15 d) 8 or 14
104. The printing speed of dot matrix printer is around _____characters per second.
a) 150 b) 300 c) 200 d) 1000
105. _____printers are printers that produce images by pushing electrically heated pins against special heat-sensitive paper.
a) Thermal b) dot matrix c) ink jet d) laser
106. _____ printers are used widely in fax machines and calculators.
a) Thermal b) dot matrix c) ink jet d) laser
107. _____serves as a voice output device.
a) CD b) monitor c) microphone d) speakers
108. Secondary storage is also called _____ storage.
a) primary b) backup c) front page d) main
109. The average time required to reach a storage location and obtain its contents in a secondary storage is called its _____
a) process time b) aspect ratio c) access time d) run time
110. The hard disk is a _____ access storage medium
a) direct b) indirect c) serial d) sequential
111. Data is arranged as a series of concentric rings called as _____
a) Compact disks b) tracks c) records d) sectors
112. A track is subdivided into a number of _____
a) drums b) heads c) records d) sectors
113. The smallest unit that can be written to or read from the disk is a _____.
a) data b) track c) sector d) record
114. _____ is a delay involved until the required sector reaches the read/write head.
a) access time b) aspect ratio c) track ratio d) rotational latency
115. The storage capacity of the disk is determined as _____ * _____ * _____* _____
a) number of tracks * number of sectors * bytes per sector * number of read/write heads
b) number of tracks * number of sectors * bytes per track * number of read/write heads
c) number of tracks * number of sectors * bytes per record * number of read/write heads
d) number of tracks * number of sectors * bytes per drum * number of read/write heads
116. The arrangement of tracks and sectors on a disk is known as its _____.
a) medium b) format c) capacity d) block

117. Data is stored in _____ across the width of the tape.
a) medium b) format c) frames d) blocks
118. Frames are grouped into _____ or _____
a) blocks or tracks b) blocks or records c) records or sectors d) blocks or sectors
119. Magnetic tape is a _____ access medium
a) direct b) block c) serial d) random

120. The floppy disks are usually_____ in size
a) 3.0" b) 3.5" c) 4.5" d) 1.5"
121. A 3.5" floppy disk can hold _____MB of data.
a) 1.44 b) 1.55 c) 2.44 d) 3.44
122. Magnetic tape is a serial access medium, similar to _____
a) compact disk b) DVD c) audio cassette d) magnetic drum
123. _____are a storage medium from which data is read and to which it is written by lasers.
a) magnetic drums b) optical drums c) floppy disks d) optical disks
124. The optical disk is a _____access storage medium.
a) sequential b) block c) serial d) random
125. CD-ROM stands for _____
a) Compact Disk - Read Only Memory b) Compact Disk - Random Only Memory
c) Cover Disk - Read Only Memory d) Compact Drum - Read Only Memory

ANSWERS

1 – b	**2 - c**	**3 - a**	**4 – d**	**5 - a**	**6 - d**	**7 - d**	**8 - c**	**9 - b**	**10 - c**	**11 - a**	**12 - d**	**13 - a**	**14 - b**	**15 - b**
16 – a	**17 - b**	**18 - a**	**19 - d**	**20 -c**	**21 - b**	**22 - d**	**23 - b**	**24 - d**	**25 - a**	**26 - c**	**27 - c**	**28 - d**	**29 - c**	**30 - b**
31 – c	**32- a**	**33 - a**	**34 - c**	**35 – a**	**36 - b**	**37 - a**	**38 - d**	**39 - a**	**40 - c**	**41 - a**	**42 - b**	**43 - d**	**44 - a**	**45 - a**
46 – b	**47 - a**	**48 - c**	**49 - d**	**50 - c**	**51 - d**	**52 - d**	**53 - c**	**54 - c**	**55 - b**	**56 - d**	**57 - a**	**58 - b**	**59 - a**	**60 - d**
61 – b	**62 - d**	**63 - c**	**64 - a**	**65 - d**	**66 - a**	**67 - c**	**68 - d**	**69 - c**	**70 - d**	**71 - c**	**72 - b**	**73 - b**	**74 - c**	**75 - d**
76 – d	**77 - b**	**78 - d**	**79 - b**	**80 - c**	**81 - d**	**82 - b**	**83 - b**	**84 - a**	**85 - c**	**86 –b**	**87 - d**	**88 - a**	**89 - c**	**90 - b**
91 – c	**92 - b**	**93 - d**	**94 -c**	**95 - d**	**96 - d**	**97 - b**	**98 - d**	**99 - c**	**100-a**	**101-b**	**102-c**	**103-d**	**104-b**	**105-a**
106-a	**107-d**	**108-b**	**109-c**	**110-a**	**111-b**	**112-d**	**113-c**	**114-d**	**115-a**	**116-b**	**117-c**	**118-b**	**119-c**	**120-b**
121-a	**122-c**	**123-d**	**124-d**	**125-a**										

CHAPTER 4
WORKING PRINCIPLE OF DIGITAL LOGIC

1. A _____is an elementary building block of a digital circuit.
   a) truth table b) algebra c) boolean opeator d) logic gate
2. Logic gate is a circuit with ____ output and one or more inputs.
   a) one b) two c) three d) many
3. At any given moment, logic gate takes one of the two binary conditions_____ or _____
   a) one, ten b) low, high c) min, max d) small, big
4. There are three fundamental logic gates namely ____, _____ and _____
   a) AND, OR NOR b) AND, OR NOT c) NAND, OR NOT d) ADD, SUB, MUL
5. _____ and _____gates are called the universal gates.
   a) AND, OR b) AND, NOT c) NAND, NOR d) NOR, NOT
6. In AND gate, the output is _____ only when both inputs are 'true'.
   a) false b) true c) true or false d) zero
7. In ____gate the output is "true" if either or both of the inputs are "true".
   a)AND b) NAND c) OR d) NOT
8. In OR gate the output is _____if both the inputs are 'false'.
   a) false b) true c) true or false d) one
9. The _____ gate is called as logical inverter
   a) AND b) NAND c) OR d) NOT
10. The NOR gate circuit is an OR gate followed by an _____.
    a)AND b) inverter c) input d) NOT
11. In NOR gate the output is "true" if both inputs are "____"
    a) false b) true c) true or false d) one
12. A bubbled AND gate produces the same output as a _____gate
    a) AND b) NOR c) OR d) NOT
13. The NAND gate operates as an _____ gate followed by a _____gate.
    a) AND, OR b) AND, NOT c) NAND, NOR d) NOR, NOT
14. The _____ gate acts in the same way as the logical "either/or."
    a) NAND b) NOR c) XOR d) NOT
15. The _____ gate is a combination XOR gate followed by an inverter.
    a) NAND b) NOR c) XOR d) XNOR
16. _____ lists all the values of the boolean function for each set of values of the variables.
    a) logical gates b) truth table c) Boolean variable d) boolean expression
17. A simplest way is to write the boolean function as an OR of _____.
    a) minterms b) maxterms c) products d) literals
18. The circuit that performs addition within the Arithmetic and Logic Unit of the CPU are called _____
    a) expressions b) adders c) truth table d) variables
19. A unit that adds two binary digits is called a _____
    a) adder b) full adder c) flip flop d) half adder
20. A _____ sums three input bits
    a) adder b) full adder c) flip flop d) half adder
21. A full adder consists of _____inputs and _____outputs.
    a) two, three b) two, one c) three, two d) three, one
22. A _____ is a circuit which is capable of remembering the value which is given as input.
    a) adder b) full adder c) flip flop d) half adder
23. The full adder can be constructed from two _____and an ____gate.
    a) full adder, OR b) half adder, NOT c) flip flop, OR d) half adder, OR
24. The _____and _____circuits are the examples for the combinational circuits.
    a) adder, half adder b) full adder, flip flops c) flip flop, half adder d) half adder, full adder

25. If the logic circuit outputs are based on the previous state output, then they are called _____ circuits.
    a) synchronous b) asynchronous c) digital d) sequential
26. The two main types of sequential circuits are _____ and _____ sequential circuits.
    a) synchronous, asynchronous b) asynchronous, direct
    c) digital, synchronous d) half adder, full adder
27. A flip-flop is also called as a _____gate.
    a) stable b) unstable c) bi-stable d) non-sequential
28. The _____circuit is an example of sequential circuit.
    a) adder b) full adder c) flip flop d) half adder
29. A simple flip-flop has _____stable states.
    a) two b) one c) three d) many
30. A flip-flop circuit can be constructed using either two ____ gates or two _____ gates.
    a) AND, OR b) NAND, NOT c) AND, NOR d) NOR, NAND
31. The flip-flop maintains its states indefinitely until an input pulse called a _____ is received.
    a) trigger b) return c) control d) address
32. _____is a simulation tool for electronic circuits.
    a) Digital board b) Electronic board c) Electric workbench d) Electronic workbench
33. _____is a electronic workbench which is used for design and analysis of circuits.
    a) MultiSet b) MultiDigit c) MultiSim d) MultiBench
34. MultiSim provides a tool called the _____from the instrument bin.(logic converter)
    a) logic converter b) logic inverter c) logic adder d) logic circuit
35. With the _____, one can carry out several conversions of a logic circuit representation.
    a) logic converter b) logic inverter c) logic adder d) logic circuit
36. The boolean function of Bubbled AND gate is _____
    a) C = A' . B b) C = A' . B' c) C = A . B' d) C = A' + B'
37. The boolean function of Bubbled OR gate is _____
    a) C = A' . B b) C = A' . B' c) C = A . B' d) C = A' + B'
38. In boolean algebra, _____ is an exclusive-OR.
    a) $\oplus$ b) $\ominus$ c) $+$ d) $\odot$
39. In boolean algebra, _____ is an exclusive-NOR.
    a) $\oplus$ b) $\ominus$ c) $+$ d) $\odot$
40. The flip-flop circuit has two outputs, one for the normal value **Q** and another for the complement value_____.
    a) **R** b) **S** c) **Q** d) $\overline{Q}$

ANSWERS

1 - d	**2 - a**	**3 - b**	**4 – b**	**5 -c**	**6 - b**	**7 - c**	**8 - a**	**9 - d**	**10 - b**
11 - a	**12 - b**	**13 - b**	**14 - c**	**15 - d**	**16 - b**	**17 - a**	**18 - b**	**19 - d**	**20 -b**
21 - c	**22 - c**	**23 -d**	**24 - d**	**25 - d**	**26 - a**	**27 - c**	**28 - c**	**29 -a**	**30 - d**
31 -a	**32-d**	**33 - c**	**34 – a**	**35 – a**	**36 – b**	**37 – d**	**38 – a**	**39 – d**	**40 – d**

CHAPTER 5
OPERATING SYSTEM

1. _____Software looks after the functions of the computer
   a) application b) system c) word processor d) office
2. The Operating System comes under the _____ Software category.
   a) application b) system c) word processor d) office
3. _____ software helps the user to do his/her work.
   a) application b) system c) word processor d) translation
4. The Operating System manages the _____.
   a) program b)file c) resources d) coding
5. Operating system provides special routines called _____ to support the specific behaviour of individual device.
   a) kernel b) device drivers c) procedures d) booting
6. The Operating System is the intermediary between _____, _____ and computer.
   a) user, application b) system, software c) processor, input d) user, hardware
7. _____ can access the hardware directly.
   a) application b) system c) operating system d) user
8. Operating System is an _____ between the user and computer hardware.
   a) application b) interface c) routine d) device
9. The _____ acts as the manager of resources.
   a) application b) system c) operating system d) user
10. The primary goal of the Operating System was mainly to optimize_____
    a) programs b)file c) resources d) users
11. The Operating System should provide _____ for not allowing one user to write on the file/files of the other user.
    a) program b) password c) data integrity d) data security
12. The Operating System should not allow unauthorised people to access the data of the other people is called as _____
    a) data confidentiality b) privacy c) data integrity d) data security
13. _____ may be the first elementary Operating System.
    a) program monitor b) data monitor c) resident program d) resident monitor
14. _____allows transferring data to and from memory without the intervention of the CPU.
    a) Direct Memory Access mechanism b) Device Memory Access mechanism
    c) Disk Memory Access mechanism d) Drum Memory Access mechanism
15. _____ allows reading a set of jobs from disk system to CPU for executing.
    a) program b) process c) processor d) spooling
16. Spooling is superior to the _____
    a) program b) process c) buffer d) memory
17. _____ takes care of the printing work with the printer.
    a) program b) keyboard c) processor d) spooling
18. _____gives the illusion that many programs run simultaneously.
    a) multiprocessing b) multithreading c) multi processor d) multiprogramming
19. Spooling allowed the CPU to choose a particular job for execution leading to the concept called the_____
    a) CPU scheduling b) job scheduling c) task scheduling d) spooling
20. In multiprogramming, _____ is divided into many partitions.
    a) program b) process c) memory d) processor
21. _____allows many programmers to load their programs in the different partitions.
    a) multiprocessing b) multithreading c) multi processor d) multiprogramming
22. In _____ concept the CPU allocated a fixed time for each program.
    a) time-sharing b) multithreading c) multi processing d) multiprogramming

23. There are two types of the Operating Systems, _____ and _____
    a) Single user Operating System, Multi-user Operating System
    b) Single Operating System, Multi-Operating System
    c) Single processor Operating System, Multi-processor Operating System
    d) Single device Operating System, Multi-device Operating System
24. MS-DOS is an example of _____Operating System
    a) time-sharing b) single user c) multi processing d) multi-user
25. The multi-user Operating System is based on the concept of_____
    a) time-sharing b) multithreading c) multi processing d) multiprogramming
26. Safeguarding of data is called _____
    a) data integrity b) data security c) user security d) data privacy
27. The _____ program is not allowed to read data from the disk.
    a) application b) data c) security d) system
28. A set of extended instructions providing an interface between the Operating System and the user programs is called _____
    a) application b) system call c) function d) system rules
29. Multiprocessor systems have more than one _____ in close communication with the others.
    a) memory b) operating system c) user d) CPU
30. In a tightly coupled system the processors share_____ and _____.
    a) application, clock b) memory, clock c) memory, CPU d) memory, application
31. Unix is an example of _____ Operating System.
    a) time-sharing b) single user c) uni processing d) multi-user
32. Operating System divides the main memory into _____ memory and _____memory.
    a) user, system b) user, data c) user, reserved d) system, reserved
33. _____memory is divided into many partitions to accommodate various jobs.
    a) reserved b) user c) data d) system
34. Process management undertakes the allocation of _____to one program.
    a) applications b) data c) processors d) system
35. In _____ , the process that enters the queue first is executed first by the CPU.
    a) FIFO b) FOFI c) round robin d) SJF
36. SJF stands for_____
    a) Short Job First b) Small Job First c) Smartest Job First d) Shortest Job First
37. In _____ algorithm, CPU execution is based on the size of the job.
    a) FIFO b) priority c) round robin d) SJF
38. Jobs are assigned processor time in a circular method in _____algorithm.
    a) FIFO b) priority c) round robin d) SJF
39. The allocation of processors by process management is also known as the_____
    a) file scheduling b) CPU scheduling c) Job scheduling d) process scheduling
40. An objective of the CPU Scheduling should be to maximize the _____ utilization.
    a) application b) data c) CPU d) system
41. _____Operating System ensures that the entire network behaves as a single computer.
    a) distributed b) network c) single-user d) multi-user
42. _____shoulders the burden (responsibility) of managing the networks.
    a) processor b) user c) security d) operating system
43. The Operating System provides _____ levels of securities to the user.
    a) two b) three c) four d) no
44. System level security is offered by the _____ in a multi-user environment.
    a) IP address b) user id c) password d) login
45. _____security is an elusive one
    a) file level b) user level c) system level d) network level

ANSWERS

1 - b	2 - b	3 - a	4 – c	5 -b	6 - d	7 - c	8 - b	9 - c	10 - c
11 - d	12 - a	13 - d	14 - a	15 - d	16 - c	17 - d	18 - d	19 - b	20 -c
21 - d	22 - c	23 -a	24 - b	25 - a	26 - b	27 - a	28 - b	29 -d	30 - b
31 -d	32-c	33 - b	34 – c	35 – a	36 -d	37-d	38 - c	39 –b	40 – c
41 -a	42-d	43 - b	44 – c	45 – d					

CHAPTER 6

COMPUTER COMMUNICATIONS

1. A system consisting of connected nodes made to share data, hardware and software is called a _____
   a) operating system b) computer network c) stand-alone computer d) file sharing
2. Primary goal of a computer network is to share _____
   a) programs b) data c) resources d) files
3. LAN stands for _____
   a) Local Area Network b) Large Area Network
   c) Local Arithmetic Network d) Local Area Node
4. MAN stands for _____
   a) Middle Area Network b) Metropolitan Area Network
   c) Metro Area Network d) Metropolitan Area Node
5. WAN stands for
   a) Wide All Network b) Wild Area Network
   c) Wider Area Network d) Wide Area Network
6. A network connecting systems inside a single building is called _____
   a) LAN b) VPN c) MAN d) WAN
7. In a wireless LAN, connections may be using_____ or _____ waves
   a) ultra, radio b) ultra, infrared c) infrared, radio d) either a or c
8. Wireless networks are useful when computers are _____
   a) slow b) portable c) robust d) costly
9. Wireless network communicates _____ than a wired network.
   a) slower b) faster c) bigger d) smaller
10. LAN is generally used to share _____, _____and _____.
    a) hardware , software, data b) files , software, data
    c) hardware , software, files d) hardware , program, data
11. The data received is same as the data sent is known as data ____
    a) secure b) safe c) robust d) reliable
12. The data being transferred cannot be damaged either will fully or accidentally is known as _____
    a) secure b) safe c) robust d) reliable
13. Both the sender and the receiver knows the status of the data sent.
    a) secure b) safe c) robust d) reliable
14. In a LAN, systems are connected either by wire or _____.
    a) signals b) wireless c) cables d) fiber optic
15. Which of the following are not wired connection?
    a) fiber optic cable b) infrared waves c) twisted pairs d) coaxial cables
16. In a wireless LAN, connections may be using _____
    a) fiber optic b) infrared waves c) radio waves d) either b or c
17. A computer sharing software package and hard disk is called a _____
    a) data server b) server c) file server d) host
18. A Network that spans a geographical area covering a Metropolitan city is called _____
    a) LAN b) VPN c) MAN d) WAN
19. _____ is typically two or more LANs connected together across a wide geographical area.
    a) LAN b) WAN c) MAN d) CAN
20. _____is the structure or layout of the communication channels that connects the various computers on the network.
    a) network diagram b) network path c) network topology d) network structure

21. Each computer in the network is called a _____
a) server b) router c) file d) node
22. In a _____network all computers and other communication devices are connected to a central hub.
a) ring b) bus c) star d) hybrid
23. UTP means _____
a) Universal Twisted Pair b) Unshielded Twisted Pack
c) Unshielded Twisted Path d) Unshielded Twisted Pair
24. In a _____network computers and other communication devices are connected in a continuous loop.
a) ring b) bus c) star d) hybrid
25. There is no central host computer or server in _____network.
a) ring b) bus c) star d) both a and b
26. In a _____ network all communication devices are connected to a common cable.
a) ring b) bus c) star d) hybrid
27. The data transmission in bus network is _____
a) unidirectional b) multi directional c) bidirectional d) random
28. FDDI means _____
a) Fiber Distributed Data Interface b) Fast Distributed Data Interface
c) Fiber Distributed Data Interchange d) Fiber Digital Data Interface
29. _____ is a high-speed network using fiber optic cable.
a) BUS b) FDDA c) FDDI d) hybrid
30. _____is the pathway for contacting each computer with other.
a) Hybrid media b) Transfer media c) Transition media d) Transmission media
31. A _____ can be one rule or a set of rules and standards that allow different devices to hold conversations.
a) procedure b) protocol c) transmission d) network
32. _____create duplicate copies of critical data and files in the storage device.
a) file archiving b) file copying c) file backup d) either a or c
33. _____ provides a message delivery path in a network.
a) Hybrid media b) Transfer media c) Transition media d) Transmission media
34. _____ services are the network services that run software for network clients.
a) internet b) application c) data d) mail
35. _____is the process of sending data electronically from one location to another.
a) Data connection b) Data conversion c) Data communication d) Tele communication

36. The device that coordinates the data transfer is called _____
a) Node interface card b) Network inter card c) Network interface card d) Network information card
37. Ethernet, Arcnet and token ring are the examples for _____.
a) Internet b) NIC c) network d) Software
38. NIC means _____
a) Node Interface Card b) Network Inter Card c) Network Interface Card d) Network Information Card
39. _____ specifies the procedures for establishing maintaining and terminating data transfer.
a) internet b) application c) NIC d) protocol
40. International Standards Organization proposed protocol known as _____
a) ISO b) OSI c) SOI d) IOS
41. The OSI provided a network architecture with _____ layers.
a) four b) five c) six d) seven
42. OSI means _____
a) Open System Internet b) Open Stub Interconnection
c) Open System Interconnection d) Open System Information
43. ISO means _____
a) International Systems Organization b) International Standards organization
c) International Servers organization d) Internet Standards organization

44. _____ architecture helps to communicate between Network of dissimilar nodes and channels
a) ISO b) OSI c) SOI d) IOS
45. _____ data transmission is the transmission of data in a continuous waveform.
a) audio b) video c) analog d) digital
46. _____ data transmission is the widely used communication system in the world.
a) audio b) video c) analog d) digital
47. In digital data transmission, the distinct electrical state of 'on' and 'off' is represented by ___ and ___
a) true or false b) positive, negative c) 0 , 1 d) 000 , 111
48. Network layer is the _____ layer in OSI architecture.
a) fourth b) fifth c) second d) third
49. Which is the first layer of OSI network architecture?
a) Network layer b) Physical layer c) Transport layer d) Data link layer
50. Which is the fifth layer of OSI network architecture?
a) Network layer b) Physical layer c) Transport layer d) Session layer
51. Communicating, e-mail, file transfer are the purposes of _____ layer.
a) Network layer b) Application layer c) Transport layer d) Data link layer
52. _____ layer provides rules for data conversion in a network.
a) Presentation b) Application c) Network d) Data link
53. _____layer starts, stops and governs transmission order in a network.
a) Presentation b) Session c) Network d) Physical
54. _____ layer ensures delivery of complete message
a) Presentation b) Session c) Network d) Transport
55. _____ layer routes data to different networks.
a) Presentation b) Session c) Network d) Data link
56. _____ layer transmits data to Different networks
a) Presentation b) Session c) Network d) Data link
57. The _____ converts the voice at one end into an electric signal that can flow through a telephone cable.
a) system b) telephone c) Network d) protocol
58. The process of converting sound or data into a signal that can flow through the telephone wire is called ____
a) translation b) compression c) modulation d) demodulation
59. The reverse process of modulation (signal into data) is called
a) remodulation b) demodulation c) unmodulation d) nonmodulation
60. The device that accomplishes modulation – demodulation process is called a _____.
a) modem b) hub c) router d) switch
61. DCE means _____.
a) Data Connection Terminating Equipments b) Device Circuit Terminating Equipments
c) Data Circuit Transporting Equipments d) Data Circuit Terminating Equipments
62. A modem that has extra functions such as automatic answering and dialing is called _____Modems.
a) dumb b) intelligent c) power d) switch
63. The speed at which data travel over a communication channel is called the _____
a) transfer rate b) access rate c) connection rate d) communication rate
64. The rate at which the data are transferred is expressed in terms of _____
a) bpt b) bps c) rpc d) bpm
65. bps means _____
a) block per second b) backup per second c) bits per second d) bytes per second
66. data transmission in network may occur in _____ modes .
a) two b) three c) four d) many
67. In _____ mode, data can be transmitted in one direction.
a) simplex b) duplex c) half duplex d) full duplex
68. Traditional television broadcast is an example of _____ mode of data transmission.
a) half duplex b) duplex c) simplex d) full duplex

69. _____ mode data can be transmitted back and forth between two stations. But at any point of time data can go in any one direction only.
a) half duplex b) duplex c) simplex d) full duplex

70. common example for _____ mode is the walky talky.
a) simplex b) duplex c) half duplex d) full duplex
71. In _____ mode a device can simultaneously send or receive data.
a) simplex b) duplex c) half duplex d) full duplex
72. Several networks all over the world, are connected together to form a Global network called the _____.
a) WAN b) Internet c) WWW d) Google
73. The ____ addressing system is used to keep track of the million of users.
a) IP address b) User ID c) e-mail address d) Login
74. Each computer on net is called a _____
a) node b) host c) server d) hot spot
75. Internet is a _____ network.
a) complex b) circuit-switching c) wide d) packet-switching
76. In the Internet , a sending computer breaks an electronic message into _____.
a) files b) character c) records d) packets
77. The _____ switching is suitable for data transmission.
a) message b) packet c) circuit d) data
78. In a data transmission, _____ breaks up the data to be sent into little packets
a) ATM b) computer c) TCP d) IP
79. _____ is a set of conventions used to pass packets from one host to another.
a) ATM b) Protocol c) TCP d) IP
80. _____ is responsible for routing the packets to a desired destination IP address.
a) ATM b) Network c) IP d) TCP
81. The IP addressing system uses the letter addressing system and number addressing systems.
a) letter, number b) letter, image c) image, number d) all of these
82. ICANN means _____
a) Internet Committee for Assigned Names and Numbers
b) Internet Corporation for Assigned Names and Numbers
c) Internet Corporation for All Names and Numbers
d) Internet Communication for Assigned Names and Numbers
83. _____administers the domain name registration in internet.
a) ICNNA b) IACNN c) ICNAN d) ICANN
84. _____ is a multimedia portion of the Internet.
a) sound b) web c) computer d) IP
85. _____consists of an interconnection system of sites or servers all over the world that can store information in the multimedia form.
a) link b) website c) web d) network
86. Each page in a web is called a _____.
a) slide b) web page c) document d) browser
87. A group of related web pages linked together forms a _____.
a) presentation b) web c) document d) website
88. The first page of the website is called a _____.
a) home page b) start page c) link page d) base page
89. Every web page has a unique address called the _____
a) IP b) TCP c) URL d) HTTP
90. URL stands for _____
a) Uniform Resource Locator b) Uniform Research Locator
c) Universal Resource Locator d) Uniform Recovery Locator

91. _____locates the web pages on the Internet.
a) IP b) TCP c) URL d) HTTP
92. HTTP stands for _____
a) Hypertext Transmit Protocol b) Hypertext Transfer Protocol
c) Hypermedia Transfer Protocol d) Hypertext Transfer Page

93. WWW stands for _____
a) Word Wide Web b) World Worth Web
c) World Wide Web d) Worth Wide Web
94. _____ protocol is meant for transferring the web files between user and web server
a) IP b) TCP c) URL d) HTTP
95. Looking for information on the Internet is called _____.
a) surfing b) browsing c) finding d) either a or b
96. Which software is used to browse the Internet?
a) url b) browser c) html d) http
97. Web browser translates _____ documents of the website and allows viewing it on the screen.
a) multimedia b) compressed c) html d) text
98. Example of web browsers is _____
a) Netscape Navigator b) Internet Explorer c) Mozilla Firefox d) all of these
99. _____indicates the link to other sites
a) html b) hyperlink c) hypertext d) hypermedia
100. _____ is usually used to exchange messages and data files on the Internet.
a) multimedia b) http c) html d) electronic mail
101. _____ is an electronic discussion groups that focus on specific topic forms, computer forums on the Internet.
a) chat b) Usenet c) ftp d) e mail
102. FTP means _____
a) File Transfer Page b) Fast Transfer Protocol c) File Transfer Protocol d) File Transform Protocol
103. _____is used for the net user for transferring files around the world.
a) chat b) Usenet c) FTP d) e mail
104. Which protocol allows the user to connect to a remote Computer?
a) Telnet b) Usenet c) ftp d) http
105. _____ are the companies which allow the user to use the Internet for a price.
a) Networks b) Web groups c) Intranets d) ISPs
106. ISP stands for _____
a) Information Service Provider b) Internet Service Provider
c) Intranet Service Provider d) Interlink Service Providers
107. If URL is not known, then_____ will help us to get the information on the Internet.
a) address b) protocol c) search engine d) e mail
108. _____ are tools that allow the user to find specific document through key words or menu choices.
a) address b) search engines c) protocol d) e mail
109. Which is the following is not a Search engine?
a) Google b) Yahoo c) Chrome d) AltaVista
110. In Internet explorer window _____ button helps to go back to the previous link.
a) Home b) Back c) Forward d) Refresh
111. _____ button helps to reload the webpage faster on the Internet.
a) Home b) Back c) Forward d) Refresh
112. Websites which provide free download of software, tutorials and benchmarks are called as _____
a) research b) malwares c) free-wares d) updates
113. Private network that uses TCP / IP and other Internet standard protocols is called _____
a) LAN b) Intranet c) Firewall d) MAN

114. _____signals continuously vary with time.
a) analog b) digital c) radio d) sound

115. Data communication in _____mode is faster.
a) simplex b) duplex c) half duplex d) full duplex

ANSWERS

1 – b	**2 - c**	**3 - a**	**4 – b**	**5 -d**	**6 - a**	**7 - c**	**8 - b**	**9 - a**	**10 - a**
11 - b	**12 - a**	**13 - d**	**14 - b**	**15 – b**	**16 - d**	**17 - c**	**18 - c**	**19 - b**	**20 -c**
21 - d	**22 - c**	**23 -d**	**24 - a**	**25 - d**	**26 - b**	**27 - c**	**28 - a**	**29 -c**	**30 - d**
31 -b	**32-d**	**33 - d**	**34 – b**	**35 – c**	**36 -c**	**37-b**	**38 - c**	**39 –d**	**40 – b**
41 -d	**42-c**	**43 - b**	**44 – b**	**45 – c**	**46 -d**	**47-c**	**48 - d**	**49 – b**	**50 – d**
51 -b	**52-a**	**53 - b**	**54 – d**	**55 – c**	**56 -d**	**57-b**	**58 - c**	**59 – b**	**60 – a**
61 -d	**62-b**	**63 - d**	**64 – b**	**65 – c**	**66 -b**	**67-a**	**68 - c**	**69 – a**	**70 – c**
71 -d	**72-b**	**73 - a**	**74 – b**	**75 – d**	**76 -d**	**77-b**	**78 - c**	**79 – d**	**80 – c**
81 -a	**82-b**	**83 - d**	**84 – b**	**85 – c**	**86 -b**	**87-d**	**88 - a**	**89 – c**	**90 – a**
91 -c	**92-b**	**93 - c**	**94 –d**	**95 – d**	**96 -b**	**97-c**	**98 - d**	**99 – b**	**100 – d**
101 – b	**102 – c**	**103 – c**	**104 – a**	**105 –d**	**106 – b**	**107 – c**	**108 – b**	**109 – c**	**110 – b**
111 – d	**112 – c**	**113 – b**	**114 – a**	**115 –d**					