Benha University
Faculty of Engineering (at Shoubra)
Electrical Engineering Department
Preparatory year

1 You should attempt all requested parts
2 You should mark your answer clearly
2 Calculator is Not Allowed

Midterm Exam
Subject: Computer-ECE001
Date: 29 March 2017
Duration: 1 Hour

1. Identify the choice that best completes the statement or answers the question.
(1) for logic circuit (a) if $\mathrm{A}=1, \mathrm{~B}=0, \mathrm{C}=1$ and $\mathrm{D}=1$ the output will be
A. Zero
B. One
A. Zero
B. One
B. One
(2) for logic circuit (b) if $\mathrm{A}=1, \mathrm{~B}=1, \mathrm{C}=1$ and $\mathrm{D}=1$ the output will be
(3) for logic circuit (c) if $\mathrm{A}=1, \mathrm{~B}=1, \mathrm{C}=0$ and $\mathrm{D}=0$ the output will be
A. Zero
(4) Logic circuit (a) can be represented by expression
A. $(A . B)^{\prime}+(C . D)^{\prime}$
B. $A^{\prime} \cdot B^{\prime}+C^{\prime} \cdot D^{\prime}$
C. $\left(A^{\prime}+B^{\prime}\right)+\left(C^{\prime}+D^{\prime}\right)$
D. A.B.C.D
(5) The Boolean expression $\left(A^{\prime}+B\right)(A+B)$ can be simplified to
A. Zero
B. One
C. A
D. B

(a) Figure A

(b) Figure B

(c) Figure C
(6) Which of the logic circuits in the figure is equivalent?
A. a and b
B. a and c
C. b and c
D. None of the above
(7) The value of $(1100)_{2}+(0001)_{2}$ equal
A. 1101
B. 1100
C. 1000
D. 1
(8) The last step in the machine cycle is
(9) $\ldots$. is the distance between each pixel on the screen measured in millimeters.
A. Dot pitch
B. Screen size
C. Resolution
D. LCD
(10) The half adder circuit consists of two gates
A. OR . AND
B. NOR . AND
C. XNOR-AND
D. XOR-AND
(11) A touchscreen device is an example of $a(n)$...
A. processing device
B. output device
C. storage device
D. input/output device
(12) How many truth table entries are necessary for a four-input circuit?
$\begin{array}{lll}\text { A. } 8 & \text { B. } 4 & \text { C. } 12\end{array}$
D. 16
(13) Data is stored temporary at
A. USB
B. Hard Disk
C. Tape
D. None of the above
(14) Loading the operating system into a personal computer is called ....
A. Booting
B. Interrupting
C. Prompting
D. Paging
(15) The sum and carry values of $(0111)_{2}+(1001)_{2}$ are
A. Sum $=0$ and Carry $=0$
C. Sum $=0$ and Carry $=1$
B. Sum $=1$ and Carry $=0$
D. Sum $=1$ and Carry $=1$
(16) .... operating systems have the ability to run more than one application program at a time.
A. Multitasking
B. Single-tasking
C. Extra
D. Hyper
(17) The logic gate that will have LOW or .0. at its output when all of its inputs is HIGH is:
A. AND gate
B. OR gate
C. XOR gate
D. None of the above
(18) A ... is a printer that uses a pen that moves over a large revolving sheet of paper.
A. multifunction printer B. motherboard C. plotter D. scanner
(19) The value $(2 A)_{16}$ in a octal system is A. 42 B. 52 C. 42 D. 32
(20) The OS uses .... memory as an extension of RAM.
A. Virtual
B. Primary
C. Secondary
D. Controllable
(21) CPU perform the .... operation(s)
A. Data transfer
B. Logic operation
C. Printing operation
D. All of the above
(22) All the following are considered characteristics of computer except
A. speed
B. capacity
C. reliability
D. size
(23) .... is operating system utility
A. Memory management
B. Kernel
C. Multitasking
D. Backup software
(24) $\ldots$. is the amount of time needed to execute an instruction.
A. Machine cycle
B. CPU cycle
C. Primary cycle
D. Main cycle
(25) The value $(4 B)_{16}$ in a decimal system is
A. 75 B. 740
C. 4 A
D. A4
(26) $\ldots$. is a command line operating system
A. Dos
B. Windows
C. Android
D. Linux
(27) The value $(101001)_{2}$ in a decimal system is
A. 41
B. 42
C. 44
D. A4
(28) A CD drive is an example of $a(n) \ldots$ access A. Sequential B. Random C. Optical D. Magnetic
(29) The value $(1101001)_{2}$ in a octal system is A. 105
B. 151
C. 69
D. 51
(30) The value (65) 10 in an octal system is
A. 245
B. 101100101
C. 101 D. A5

Name:
ID Number:
Points.
/30



30. $\mathrm{A} \rightarrow \mathrm{B}$

