

Reg.No. \_\_\_\_\_

**Karunya UNIVERSITY**

(Karunya Institute of Technology &amp; Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

**Code : 16EC1001**  
**Sub. Name : Electronics for Everyday Life**

**Semester : 2016-17 ODD**  
**Duration : 3hrs**  
**Max. marks : 100**

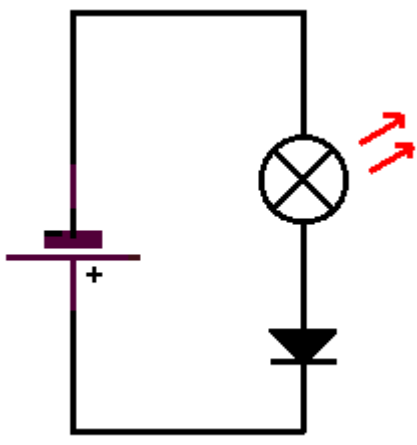
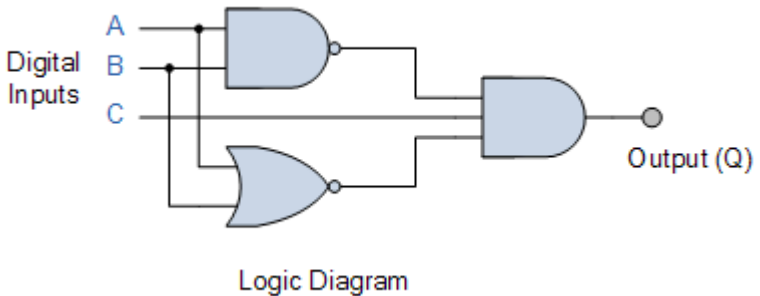
Q. No.	Questions				Course outcome	Marks
PART-A (40X1=40 MULTIPLE CHOICE QUESTIONS)						
1.	Rheostat is a					
	a.inductor	b.capacitor	c.filter	d.resistor	CO1	(1)
2.	The NPN transistor has					
	a. Three junction	b. two junction	c. four junction	d. one junction	CO1	(1)
3.	Highly doped diode which is used as a regulator is					
	a. Tunnel diode	b. photodiode	c. zener diode	d. PN diode	CO1	(1)
4.	What is the resistance value for the colour band sequence Yellow-Blue-Red-Gold in resistor					
	a. 47 ohm with 10% tolerance	b. 49 ohm with 5% tolerance	c. 48 ohm with 1% tolerance	d. none	CO1	(1)
5.	The resistance $R$ of a given material is					
	a. Directly proportional to its area of cross section	b. inversely proportional to its length	c. Directly proportional to the square of the applied voltage	d. Directly proportional to its length $L$	CO1	(1)
6.	What is the resistance offered by the capacitor with capacitance value 100 farad to 10 KHz frequency signal?					
	a. $1.5 \times 10^{-6}$ ohm	b. $1.5 \times 10^{-6}$ mho	c. $15 \times 10^{-6}$ ohm	d. none	CO1	(1)
7.	The electrical energy consumed by a coil is stored in the form of:					
	a. electric field	b. force field	c. electrostatic field	d. magnetic field	CO1	(1)
8.	In a photodiode, the intensity of the incident light is _____ to the current generated in the circuit.					
	a. directly proportional	b. Indirectly proportional	c. increased	d. decreased	CO1	(1)
9.	The base of a transistor is ..... doped					
	a. lightly	b. moderately	c. heavily	d. none of the above	CO1	(1)
10.	In a transistor .....					
	a. $I_C = I_E + I_B$	b. $I_B = I_C + I_E$	c. $I_E = I_C - I_B$	d. $I_E = I_C + I_B$	CO1	(1)
11.	What is the octal equivalent of the binary number 10111101?					
	a. 573	b. 572	c. 275	d. 675	CO2	(1)

12.	Convert $(139)_{10}$ to $( )_2$					
	a. 10001011	b. 11001011	c. 10101011	d. 10001001	CO2	(1)
13.	What is the largest decimal number that can be expressed with 4 bits?					
	a. 15	b. 16	c. 1111	d. 9999	CO2	(1)
14.	Combinational circuit has					
	a.N input and M output	b. No memory	c.No feedback	d.All the above	CO2	(1)
15.	Adder is a _____					
	a.Sequential circuit	b.Combinational circuit	c.Analog circuit	d.Counter circuit	CO2	(1)
16.	Half adder is capable of adding					
	a. two -one bit	b. two-two bits	c. two-Three bits	d. All the above	CO2	(1)
17.	Which algebra has a set of rules, laws and theorems by which logical operations can be expressed mathematically?					
	a. Binary	b. Modern	c. Boolean	d. Vector	CO2	(1)
18.	To create a P-type semiconductor, the _____valent impurity is added with intrinsic semiconductor					
	a. Penta	b. Tri	c. Tetra	d. Octa	CO1	(1)
19.	The contents of the EPROM are erased by					
	a. Discharging the Chip.	b.Overcharging the chip.	c. Exposing the chip to UV rays.	d. Exposing the chip to IR rays.	CO2	(1)
20.	The items that you can physically touch in a computer system are called:					
	a. Software	b. firmware	c. Hardware	d. None of the above	CO3	(1)
21.	C programming is a _____					
	a.Software	b.Hardware	c.Firmware	d.None	CO3	(1)
22.	Identify the input device in an ATM machine					
	a.Keypad	b.Display	c.Processor	d.Controller	CO3	(1)
23.	Identify the Output device in a washing machine					
	a.Keypad	<b>b.Display</b>	c.Processor	d.Controller	CO3	(1)
24.	What is meant by ALU					
	a. Arithmetic logic upgrade	b.Arithmetic logic unsigned	c.Arithmetic logic unit	d.Arithmetic Legal Unit	CO3	(1)
25.	Another name for input/output device is					
	a.Printer	b.Plotter	c.Peripheral	d.Display	CO3	(1)
26.	An embedded system is a system meant for _____ application					
	a.One	b.Two	c.Many	d.Three	CO3	(1)
27.	The brain of any computer system is					
	a.ALU	b.Memory	c. CPU	d. input/output	CO3	(1)
28.	Pentium is a _____					

	a. Software	b. Processor	c. Computer	d. Tablet	CO3	(1)
29.	An embedded system is a system with _____ and _____					
	a. Hardware And Software	b. Software And Peripherals	c. Hardware And Peripherals	d. Input And Hardware	CO3	(1)
30.	_____ number system is composed of only two digits 0 and 1					
	a. Hexa	b. Binary	c. Octal	d. Decimal	CO2	(1)
31.	_____ is the medium through which the signal travels from the transmitter to the receiver					
	a. Fascimile B)	b. Telegraphy	c. Telephony	d. Channel	CO3	(1)
32.	_____ is the process of changing some parameters of high frequency carrier signal in accordance with the instantaneous variations of the message signal					
	a. Transmission	b. Demodulation	c. Radiation	d. Modulation	CO3	(1)
33.	IOT is _____					
	a. Intranet Of Things	b. Internet Out Of Things	c. Internet Of Things	d. Intranet Out Of Things	CO3	(1)
34.	The process of extracting low frequency signal from a high frequency is called as _____					
	a. Modulation	b. Demodulation	c. Transmission	d. Reception	CO3	(1)
35.	SIM stands for					
	a. Subscriber Identity Module	b. Subscriber Indication Module	c. Subscriber Identify Module	d. Subscriber Instant Module	CO3	(1)
36.	The majority carrier in p-type semiconductor is					
	a. electrons	b. holes	c. electorns	d. none	CO1	(1)
37.	Only _____ waves can propagate through optical cables.					
	a. light	b. Electromagnetic	c. Radio	d. Audio	CO1	(1)
38.	Radio waves are _____ waves that <i>antennas</i> propagate.					
	a. Electromagnetic	b. optic	c. both	d. none	CO1	(1)
39.	Cellular network/telephony is a _____ based technology.					
	a. Radio	b. Video	c. Audio	d. none	CO3	(1)
40.	Wi-Fi is _____					
	a. Wireless	b. Wired Fidelity	c. Wireless Flee	d. Wired Flee	CO3	(1)

Fidelity					
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**PART B(8 X 5 = 40 MARKS) (ANSWER ANY EIGHT)**

41.	Differentiate n- type and p-type semiconductor	CO1	(5)
42.	Rectify the mistake in the circuit and justify your answer.	CO1	(5)
			
43.	Illustrate the principle behind the conversion of Light energy into electrical energy in a photodiode.	CO1	(5)
44.	 <p align="center">Logic Diagram</p> <p>Write the truth table for the given logic circuit.</p>	CO2	(5)
45.	Draw the basic block of combinational and sequential circuit and list out their differences.	CO2	(5)
46.	Convert the decimal number $(74.3125)_{10}$ to binary, octal and hexadecimal	CO2	(5)
47.	Explain the process involved in the transmitter side of a communication system.	CO3	(5)
48.	Define IoT. Justify how IoT can help the disabled?	CO3	(5)
49.	Sketch the block diagram of washing machine. Mention the input and output device.	CO3	(5)
50.	Compare and Contrast 4G and 5G mobile technology.	CO3	(5)
<b>PART C( 2 X 10 = 20 MARKS) (ANSWER ANY TWO)</b>			
51.	With neat sketch and V-I characteristic curve explain the operation of PN junction diode.	CO1	(10)
52.	Draw the block diagram of ATM machine and explain the system in detail.	CO3	(10)
53.	Explain how GPS is used in vehicle navigation system.	CO3	(10)

ALL THE BEST