

**FIRST YEAR KGCE EXAMINATION IN ELECTRONICS & COMMUNICATION
ENGINEERING ELECTRONICS & COMMUNICATION ENGINEERING-I (TRADE THEORY)**

MODEL QUESTION PAPER SET-1

(Time: 3 hours)

(MaximumMarks:60)

PART-A

(There should be at least 3 questions from each module)

(Maximum Marks:20x1 Marks = 20 Marks)

- I. Answer the following questions by choosing the correct answer from the options given below. Each question carries 1 mark.

Q No	Question	Module
1	By Ohm's Law, Resistance is directly proportional to ----- (a. Current, b. Voltage, c. Power, d. Diameter)	M 1
2	The component which is used for storing electric charge is ----- ---- (a. Diode, b. Resistor, c. Capacitor, d. Transformer)	M1
3	The component used for convert AC in to DC is ----- (a. Diode, b. Resistor, c. Capacitor, d. Transformer)	M1
4	For converting audio signals in to Sound waves,----- is used. (a. Microphone, b. Loud Speaker, c. Transistor, d. IC)	M1
5	Choose an example for IC (a. 1N 4007, b. BC 107, c. 2N3055, d. NE555)	M1
6	----- Gate is used as Invertor (a. AND, b. NAND, c. NOT, d. OR)	M2
7	----- diode is works as voltage regulator (a. LED, b. Zener Diode, c. Varacter Diode, d. Rectifier Diode)	M2
8	In Bridge Rectifiers ----- number of diodes are used (a. 1, b.2, c. 3, d. 4)	M2
9	Transistor is acts as an Amplifier in ----- region (a. Active, b. Saturation, c. Cutoff, d. Inverse)	M2
10	----- is a square wave oscillator (a. Hartley Oscillator, b. Crystal Oscillator, c. Multivibrator, d. RC Phase shift Oscillator)	M2
11	Frequency range for FM transmission is----- (a. 550KHz – 1630KHz, b. 20KHz – 200KHz, c. 88MHz – 108 MHz, d. 30 MHz – 76 MHz)	M3
12	Intermediate Frequency in AM receiver is ----- (a. 10.7MHz, b. 333KHz, c. 544KHz, d. 455KHz)	M3
13	Local area radio transmission is done in ----- (a. AM, b. FM, c. PM, d. PWM)	M3
14	Which type of modulation uses the signal superimposed over the constant Amplitude carrier waves?(a. AM, b. FM, c. PM, d. PWM)	M3

15	Which electronic device is used to convert the signal at receiving terminal of fiber optic communication channel? (a. Opto coupler b. Opto isolator, c. Photo detector d. Light emitting diode)	M3
16	What is the range of rated voltage for LED? (a. 0.5 to 1.6 VDC	M4

	b.1.6 to 4.2 VDCc. 4.2 to 5.6 VDC d. 5.6 to 6.8 VDC)	
17	Which section receives the signal from the dish antenna? (a. Encoder b. Modulator c. Multiplexer d. L N B)	M4
18	What is the full form of the abbreviation OLED? (a. Organic Light Emitting Diode, b. Organic Layer Enabled Diode, c. Organic Level Enhanced Diode, d. Organic layer Enhanced Diode	M4
19	What is the purpose of IMEI number in cell phone?(a. Access network, b. Protect data security, c. Recognize the memory, d. Identify the specific device)	M4
20	What type of joining technique is used for fiber optic cables? (a. Fusion techniques, b. Epoxy techniques, c. Welding techniques, d. Soldering techniques)	M3

PART-B

(There should be at least 2 questions from each module)

(MaximumMarks: 8x5 Marks = 40 Marks)

II. Answer *any eight* questions from the following. Each question carries marks.5 Marks.

Q No	Question	Module
1	Write the comparison chart of 3 type rectifiers.	M2
2	Draw the circuit diagram of a 5V IC regulator in the output of a Bridge Rectifier.	M2
3	Construct any TWO Logic Gates using NAND Gate and write their Truth Tables.	M2
4	Write short notes on (a) SMD (b) IC	M1
5	Draw the circuit diagram and wave forms of an AstableMultivibrator using Transistors	M2
6	Describe briefly ; (a)Cable TV system (b)Mobile communication	M3
7	Explain the basic principles of working of an Induction CookTop	M4
8	Draw the Block diagram of a Home theater sound system and Explain.	M4
9	Compare different mobile phone generations	M3
10	Draw the connection diagram and Calculate the total resistance of three 120 Ohm resistors connected; (a) in parallel (b) in series	M1
11	Draw the Block diagram of a Super Heterodyne Radio receiver	M4
12	Prepare a fault finding chart for a dead LED Bulb	M4