

**SECOND YEAR KGCE EXAMINATION IN ELECTRICAL
ENGINEERING ELECTRICAL ENGINEERING-2 (TRADE THEORY)**

MODEL QUESTION PAPER SET-1

(Time: 3 hours)

(MaximumMarks:60)

PART-A

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

(MaximumMarks: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	Device which converts AC to DC is known as a. inverter b. rectifier c. transformer d. amplifier	M 4.10
2	The unit of luminous flux is a. Candle power b. Lumen c. Lux d. Meter candle	M 2.12
3	Sodium vapor lamp has a. Neon gas b. Helium c. Hydrogen d. Nitrogen	M 2.14
4	The transistor works as an amplifier in a. Active region b. Cut off region c. Saturation region d. None of these	M 4.12
5	The motor used in household refrigeration is a. Dc series motor b. Dc shunt motor c. Universal motor d. Single phase induction motor	M 3.7
6	Which of the following is <i>not</i> a constituent of hydro power plant a. Generator b. Turbine c. Boiler d. Dam	M 1.11
7	Identify the instrument used for measuring power a. Energymeter b. Wattmeter c. Voltmeter d. Ammeter	M 1.2

8	<p>What will happen if starter is not connected to a dc motor</p> <ol style="list-style-type: none"> Heavy sparking in brushes It will not start smoothly It will not start at all None of these 	M 3.2
9	<p>Identify the transformer with transformation ratio above 1</p> <ol style="list-style-type: none"> Step up Step down autotransformer 1:1 transformer 	M 3.5
10	<p>Identify the active component</p> <ol style="list-style-type: none"> Resistor Capacitor Inductor Transistor 	M 4.2
11	<p>Identify the instrument which can be used for measuring only DC</p> <ol style="list-style-type: none"> PMMC Moving iron Induction type Dynamo type 	M 1.1
12	<p>Identify the lamp with longest operating life</p> <ol style="list-style-type: none"> LED Fluorescent lamp CFL Incandescent lamp 	M 2.14
13	<p>Identify the device used for voltage regulation</p> <ol style="list-style-type: none"> Diode Zener diode Transistor Schottky diode 	M 4.11
14	<p>Identify the motor which is used for high starting torque application</p> <ol style="list-style-type: none"> DC series motor DC shunt motor DC compound motor Shaded pole motor 	M 3.2
15	<p>Select the material used for incandescent lamp</p> <ol style="list-style-type: none"> Tungsten Carbon Iron Nichrome 	M 2.10
16	<p>Identify the torque which reduces the oscillations of the pointer</p> <ol style="list-style-type: none"> Controlling torque Damping torque Operating torque Deflecting torque 	M 1.2
17	<p>A ceiling fan uses</p> <ol style="list-style-type: none"> Capacitor start motor Universal motor Split phase motor Capacitor start capacitor run motor 	M 3.3
18	<p>Slip ring induction motor has</p> <ol style="list-style-type: none"> Phase wound rotor 	M 3.8

	b. Squirrel cage rotor c. Salient pole rotor d. Diamond coil wound rotor	
19	Internal resistance of an ammeter is a. Low b. High c. Very high d. Medium	M 1.3
20	The difference between synchronous speed and rotor speed is a. Slip b. Power c. Torque d. Friction	M 3.6

PART-B

(There should be at least 2 questions from each module)
 (Maximum Marks: 8x5 Marks = 40 Marks)

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

Q No	Question	Module
1	Describe the working of induction type energy meter with a neat diagram.	M 1.10
2	Draw the line diagram of a generating station with major components	M1.13
3	Describe the method of trunk wiring	M 2.5
4	Compare LED lamp with discharge lamp	M 2.13
5	Describe any one method of self-starting of single-phase induction motor	M 3.4
6	Distinguish between step up and step-down transformer	M 3.5
7	Draw forward and reverse biasing characteristics of diode	M 4.9
8	Describe the working of half wave rectifier	M 4.10
9	Explain the construction of ohmmeter	M 1.5
10	Describe the constructional details of DC generator	M 3.1
11	List any 2 applications each of BLDC motor and Permanent magnet synchronous motor	M 3.7
12	Describe the working principle of wattmeter	M 1.10