



SINDH BOARD OF TECHNICAL EDUCATION KARACHI
DIPLOMA OF ASSOCIATE ENGINEER 3rd YEAR
MODEL PAPER FOR
ANNUAL EXAMINATION 2021
Technologies: Electronics

Roll No _____

Script No. _____

SUBJECT: ELT-333 INDUSTRIAL ELECTRONICS

SECTION "A" OBJECTIVE

Instructions:

- Attempt all questions.
- All questions carry equal marks.
- Question paper must be returned back to invigilator within the scheduled time.

TIME: 40 Minutes
MAX. MARKS: 100

Q1.(a) Fill In the Blanks

Max Marks 30

1. SCR Stand for _____
2. Range of Microwaves _____ Hz
3. DC stand for _____
4. IC stand for _____
5. Generator convert mechanical energy into _____
6. Motor converts electrical energy into _____ energy
7. In full wave bridge rectifier no diodes _____ are.
8. Diode have two terminal _____ & cathode.
9. UPS stand for _____ supply
10. Photo conductive cell works on _____ energy
11. Thermo couple converts heat energy into _____ energy.
12. Traders is device that converts _____
13. In controller PI means _____ integral
14. Photo voltaic cell is used for _____ effect
15. The frequency of light is _____ Hz

Q.1(b) Encircle "T" for true and "F" for false:

Max Marks 10

1. Gain means alternation. (T / F)
2. The basic unit of inductance is henry. (T / F)
3. SCR has four terminals. (T / F)
4. In single phase rectifier four diodes are used. (T / F)
5. A reverse biased diode will act as an open switch. (T / F)
6. 555 timer IC is used for rectification. (T / F)
7. Solar cell consists of pentavalent & trivalent semiconductor materials. (T / F)
8. DC amplifier uses coupling capacitor at all the I/P & O/P. (T / F)
9. Closed loop control system used utilizes feedback. (T / F)
10. PLC stands for positive logic etc. (T / F)

Q1.(c) Multiple choice questions:

Max Marks 10

1. In IC regulator receive an overload. it will
(a) Shut down (b) Provide more voltage (c) Sample & adjust
2. Rectifier output polarity depends upm
(a) Cycle of input (b) Diode installation (c) Half & full wav
3. A system is un acceptable unless it is
(a) Stable (b) Un stable (c) Constant
4. Diac is also called
(a) Three diode (b) 4 diode (c) Double diode
5. Magnet has polar
(a) One pole (b) Two poles (c) Four poles
6. Photo transistor work on
(a) DC only (b) AC only (c) Light energy
7. The units of magnetic flux
(a) Candela (b) Frequency /Hz (c) W/sec
8. Servo motor are most commonly used in
(a) Open loop system (b) Close loop system (c) Non of above
9. The unit of light is
(a) Cadela (b) w/se (c) non of above
10. Typic value of inter base resistance of UJTs
(a) A 20 Kr (b) Between 4-10 Kr (c) 4 kr

Signature of Candidate

Seal of Examination Centre

Signature of Invigilator

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SECTION "B" & "C"

TIME: 2.40 HOURS

MAX. MARKS: 50

Section "B"

(Short Answer Questions)

Max. Marks: 30

Q2: Attempt any Six questions from the following. All questions carry equal marks.

1. State the operation of UJT colorations Oscillator.
2. Draw the ect diagram of a magnetic amplifier.
3. List the application of DC amplifier.
4. Draw the ect diagram of an magnetic amplifier.
5. Describe the voltage regulator method of speed control of a motor.
6. Define step down switching regulator.
7. List the application of pole face rectifier.
8. State thermo couple.
9. Draw block diagram bridge rectifier.
10. Define IC temperature sense.

Section "C"

(Descriptive Answer Questions)

Max. Marks: 20

Q3: Attempt all questions from the following. All questions carry equal marks.

1. Explain timer using IC 555 & 55b

OR

Identify the functions of each block of resistance welding.

2. Define thermostat . Explain the characteristics of thermostat.

OR

Draw the internal block diagram of IC temperature sensor & explain any two blocks
