

- Q.25 Classify various types of furnaces.
 Q.26 Explain the working principle of stepper motor.
 Q.27 Describe the construction and working of half wave rectifier.
 Q.28 Explain the construction of BJT transistor.
 Q.29 The number of primary and secondary windings is 110 and 240 respectively. The primary voltage is given by 300v, Give what determines the secondary voltage?
 Q.30 Draw and explain a typical domestic wiring circuit.
 Q.31 Describe the working of FET.
 Q.32 Explain plate earthing method.
 Q.33 What are Universal Gates?
 Q.34 How a servo motor is different from normal motors? Explain briefly.
 Q.35 Explain the working of UJT.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Compare the series and shunt motor.
 Q.37 What are filter circuits? Explain the working of any one filter circuit with its diagram.
 Q.38 Write short note on :
 a) Effect of AC voltage on pure inductance
 b) 3 phase Squirrel cage method.

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3rd Year / Advance Diploma in Tool and Die Making

Subject:- Electrical and Electronics Engineering

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 _____ circuits are designed to pass some frequencies known as noise and reject others.
 a) Thyristor b) Transistor
 c) Diode d) Filter
- Q.2 In resistive circuits, the CURRENT is in _____ phase of the VOLTAGE
 a) Same b) Leading
 c) Lagging d) None of the above
- Q.3 The value of voltage between two phases is _____ volts.
 a) 220 v b) 440 v
 c) 110 v d) 420 v
- Q.4 Multimeter is used for _____.
 a) Current b) Voltage
 c) Resistance d) All of the above

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Q.5 The approximate efficiency of a transformer is

- a) 50% b) 80%
- c) 95% d) 65%

Q.6 _____ motor is self starting type?

- a) Single phase b) 3 phase
- c) Both (a) and (b) d) None of the above

Q.7 The following is a semiconductor material

- a) Aluminum b) Silicon
- c) Boron d) Helium

Q.8 Name the three legs of an amplifier.

- a) BJT, EFT, UJT
- b) Base, emitter, collector
- c) Collector, transmitter, emitter
- d) None of the above

Q.9 _____ shows all the possible truth values returned by a gate

- a) Truth & false b) 0 & 1
- c) High & Low d) Truth Table

Q.10 A _____ circuit uses only one diode for the transformation of AC

- a) Halfwave rectifier b) Full wave rectifier
- c) Transistor d) Thyristor

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Name any two uses of single phase circuits

Q.12 SI units of current is _____ and voltage is _____

Q.13 Three phases are shown by _____, _____ and _____ color.

Q.14 Transformer works on the principle of _____

Q.15 Best first aid for electric shock is _____.

Q.16 Necessity of earthing is to _____

Q.17 Name 3 configuration of amplifiers _____

Q.18 Logic gates are the circuits which allow _____

Q.19 An electrical device which converts an alternating current into a direct one by allowing a current to flow through it in one direction only is _____

Q.20 What is the symbol of a thyristor?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write short note on method of cooling of transformer.

Q.22 Explain the construction of DC shunt motor.

Q.23 Enlist the Indian Electricity rules for testing of Electrical Installation.

Q.24 Explain the working of 3 phase induction motor.