

- Q.27 Give a few specifications of DC generator.
 Q.28 Describe the working of squirrel cage induction motor.
 Q.29 Write short note on thyristor.
 Q.30 An ideal transformer delivering a current of 2A to the load, has primary winding drawing a current of 0.1A from a 240V mains. If the number of turns in the primary is 6000, find the number of turns in secondary and the potential difference across the load.
 Q.31 Write short note on testing of electrical installations.
 Q.32 Define diodes and their workings.
 Q.33 Give the specifications of a typical transformer.
 Q.34 Explain the method of electric welding with its diagram.
 Q.35 What are various effects of electric shock?

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
 Q.36 What are the basic differences between DC series , shunt and compound motors.
 Q.37 Classify and describe various methods of earthing with their diagrams.
 Q.38 Write short notes on
 a) Effect of AC on pure capacitance.
 b) Different types of wiring.

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Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Transformer is used to
 a) Increase voltage b) Decrease voltage
 c) Transform AC to DC d) Both (a) & (b)
 Q.2 SI Units of current is _____ and voltage is _____
 a) Ampere, voltage b) Watt, volt
 c) Ampere volt, d) None of the above
 Q.3 Three phases are shown by _____, _____ and _____ color.
 a) Red, black, green b) Red, yellow, blue
 c) Red, white, green d) Blue, green, white
 Q.4 Transformer works on the principle of _____
 a) Electro magnetic force (EMF)
 b) Mutual magnetic force
 c) Mutual induction
 d) None of the above
 Q.5 Which type of shock is more dangerous?

- a) A.C. b) D.C
 c) High frequency d) None of the above
- Q.6** Earthing is used to
 a) protect you from an electric shock.
 b) providing a path for a fault current to flow to earth.
 c) It also causes the protective device to switch off the faulty electric current device
 d) All of the above
- Q.7** Which configuration is used in amplifier?
 a) common-emitter b) common-base
 c) common-collector d) all of the above
- Q.8** Logic gates are the circuits which allow _____
 a) Only 0 or 1 to pass through
 b) HI voltage and LO volt to pass through
 c) Truth and false values
 d) All of the above
- Q.9** 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 _____
 a) Amplifier b) Transistor
 c) Diode d) All of the above
- Q.10** How many states do the Silicon controlled Rectifier (SCR) have?
 a) 2 states b) 3 states
 c) 4 states d) Only one

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Name any 2 uses of 3 phase circuits.
 Q.12 In resistive circuits, the CURRENT is in _____ phase of the VOLTAGE
 Q.13 The value of voltage between two phases is _____ volts.
 Q.14 Multimeter is used for _____.
 Q.15 The efficiency of transformer is more than _____.
 Q.16 Which motor is self start? (Single phase / 3 phase)
 Q.17 Name any two semiconductor materials.
 Q.18 Name the three legs of an amplifier.
 Q.19 _____ is a breakdown of all the possible truth values returned by a logic gate.
 Q.20 A _____ circuit uses only one diode for the transformation of AC to DC.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write short note on maintenance of transformer.
 Q.22 Explain the construction of a DC compound motor.
 Q.23 Differentiate between a moving iron and moving coil instruments.
 Q.24 Explain the principle of method of energy conversion from mechanical to electrical.
 Q.25 Explain any one type of furnace with its diagram.
 Q.26 Differentiate between a servo motor and a normal motor.