Roll No. ....

1st Year / Computer Engg.

Subject : Fundamental of Electrical and Electronics Engineering

Time : 3 Hrs.   M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory   (6x1=6)

Q.1   A JFET is also called_____ transistor.

   a)   Unipolar   b)   Bipolar

   c)   Unijunction   d)   None of the above

Q.2   Unit of MMF is_____

   a)   Weber   b)   Volt

   c)   Ampere Turns   d)   Ampere

Q.3   Synchronous speed of a 3 phase, 4 pole, 50 Hz induction motor is_____

   a)   1500 rpm   b)   1440 rpm

   c)   3000 rpm   d)   2880 rpm

Q.4   The point of intersection of d.c. and a.c. load lines represents_____.

   a)   Operating point   b)   Current gain

   c)   Voltage gain   d)   None of the above

Q.5   Minimum value of power factor is_____

   a)   1   b)   0

   c)   2   d)   None

Q.6   Unit of current is_____.

   a)   Volts   b)   Ampere

   c)   Ohm   d)   Watt:

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory.   (6x1=6)

Q.7   Define MMF

Q.8   What is primary cell?

Q.9   What is inductance?

Q.10 What is form factor

Q.11 Define Impedance

Q.12 Define Leakage current.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions.   (8x4=32)

Q.13   What is need for stabilization of operating point.

Q.14   Explain CE input and Output Characteristics.

Q.15   Explain principle of operation of transformer.

Q.16   Explain the series and parallel resonance.

Q.17   Explain working of Silver Oxide Batteries.

Q.18   Explain general idea of solar cells and its applications

Q.19   Explain Faraday's law of Electromagnetic Induction.

Q.20   Give the concept of MMF.

Q.21   What is the effect of alternating voltage applied to a pure resistance.

Q.22   What is power in combined RLC circuits.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.   (2x8=16)

Q.23   Explain construction and operation of FETS.

Q.24   Explain working of Voltage divider biasing.

Q.25   Differentiate between BJT and MOSFET.