MODEL QUESTION PAPER

DSET1

III Semester DIPLOMA Examination, August 2011
ELECTRICAL CIRCUITS & INSTRUMENTATION

Time: 3 Hours   Max. Marks: 75

GROUP A : Answer any three questions.

Q.1   State & explain the law of resistance.
Q.2   What is relation ship between frequency and inductive reactance?
Q.3   Draw the vector diagram of pure inductor & pure capacitor circuit.
Q.4   What are the difference between series and parallel connected resistor?
Q.5   Draw the vector diagram of RC series circuits.

GROUP B : Answer any three questions.

Q.6   Explain the fardays law of electromagnetic induction.
Q.7   What are the basic forces to require for indicating instruments?
Q.8   What are the types of electrical strain gauge? Explain.
Q.9   Explain the measurement of strain by using Wheatstone bridge type strain gauge?
Q.10   What are the applications of DC motor?

GROUP C: All Questions are Compulsory.

Q.11   Fill in the blanks

(i)   _____ making to flow current.
(ii)   Mesh analysis is using _____ law.
(iii)   Electric power in circuit is due _____.
(iv)   KVL is used to solve _____.
(v)   Node is a collection of _____.

Q.12   Multiple choice question.

(i)   The _____ is Unit for power.
         (a) Watt   (b) Volt
         (c) Ampere   (d) Hertz
(ii)   There phase system have two current as _____.
         (a) Line & phase   (b) Node & mesh
         (c) Loop & node   (d) Node & loop
(iii)   Line current & phase current are voltage in _____.
         (a) Two phase system   (b) Three phase system
         (c) Four phase system   (d) Five phase system
(iv)   Inductor block_____.
         (a) AC   (b) DC

(c) PC   (d) None of above
(v)   Mesh analysis is also known as _____.
        (a) Loop analysis   (b) KVL
        (c) KCL   (d) Node analysis

Q.13   True or false

(i)   KVL and Ohm's law is same.
(ii)   Power in the circuit is due to work done.
(iii)   Power $= I^2 \times R$
(iv)   Superposition theorem is Norton's theorem.
(v)   Work done in the circuit is due to power.

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