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**DVOC-Level-4, Sem. 2nd
Branch: Ref. & Air Cond,
Subject : Electrical Machines(787)**

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Multiple Choice questions. All questions are compulsory. (5x1=5)

- Q.1 Which DC motor is preferred for Elevators?
- a) DC Shunt Motor
 - b) DC series motor
 - c) Differential Compound Motor
 - d) Cumulative Compound motor
- Q.2 Which of the following does not change in a transformer
- a) Voltage
 - b) Current
 - c) Frequency
 - d) all of the above
- Q.3 In a split phase motor, running winding should have?
- a) High resistance and Low Inductance
 - b) Low resistance and High Inductance
 - c) High resistance as well as high Inductance
 - d) Low resistance as well as Low Inductance

- Q.4 For starting a DC Motor a starter is required because
- it limits the speed of motor
 - it limits the starting current to a safe value
 - it starts the motor
 - None of the above
- Q.5 If the Capacitor of a single phase motor is short circuited
- the motor will not start
 - The motor will run
 - The motor will run in reverse direction
 - The motor will run in same direction at reduced rpm

SECTION-C

Note: Objective type questions. All questions are compulsory $(5 \times 1 = 5)$

- Q.6 What is back EMF?.
- Q.7 Transformer oil is used as a _____.
- Q.8 Brushes of dc motor are made of _____.
- Q.9 Transformer always rated in _____.
- Q.10 Iron losses in a transformer consist of _____ and _____.

SECTION-C

Note: Short answer type questions. Attempt any six questions out of Eight questions. $(6 \times 5 = 30)$

- Q.11 How rewinding of transformers is done?
- Q.12 What are the advantages of 3 phase motor over single phase motor?
- Q.13 Explain the principal of a Step down transformer.
- Q.14 Explain any five common faults in AC motors.
- Q.15 Explain different types of solders in detail..
- Q.16 Explain the function of commutator in DC motor.
- Q.17 Explain working principle of compound DC motor.
- Q.18 Explain the working of universal motor in brief.

SECTION-C

Note: Long answer type questions. Attempt any one questions out of two questions. $(10 \times 1 = 10)$

- Q.19 Explain construction and working of dc motor in detail?.
- Q.20 Explain auto transformer. Describe advantages and disadvantage of auto transformer and give its applications?