

**Samanta Chandrasekhar Institute of Technology and
Management**

INTERNAL EXAM : 2

SEM: 4TH

SUB: EM&I

FULL MARK: 10

Q1 : (a) Which measuring instrument is the cheapest as regard accuracy ?

(b): which instrument has the highest frequency range with accuracy with in reasonable limits ?

(c) : IN an induction type of meter maximum torque is produced when the phase angle between two fluxes is ?

(d): A 1 MA ammeter has a resistance of 100 ohm . it is to be converted to a 1 A ammeter . the value of shunt resistance ?

(e) : A 1 MA arsenal movement ha a resistance of 100 ohm . it is to be converted to a 10 v voltmeter . the value of multiplier resistance ?

Q2: The ratio of the reading of two wattmeter connected to measure power in a balanced 3 phase ,3 wire load is 5:3 . the load is be inductive with a lagging power factor . calculate the power factor of the load?

**Samanta Chandrasekhar Institute of Technology and
Mangement**

INTERNAL EXAM :1

SEM: 4TH

SUB : EM&I

FULL MARK : 10

Q1: (I): Define accuracy ?

(ii): Define precision ?

(iii): Define drift ?

(iv): Define dead time ?

(v): Define reproductivity ?

Q2: Write notes on step funvtion ?

Q3: Write notes on PMMI instruments ?

Samanta Chandrasekhar Institute of Technology and Mangement

INTERNAL EXAM :2

SEM: 4TH

SUB: EC-1

FULL MARK :10

Q1 (I): A dc motor run of 1725 RPM at full load and 1775 RPM at no load . The speed regulation is ?

(ii): The different between no load and full load speed of a dc shunt motor is of the order of ?

(iii) The back emf of a dc motor ?

(iv) :The value of the back emf in a dc motor is maximum is ?

(v) : which motor has the best speed regulation ?

Q2: A 200 volt shunt motor developed 33 hp when taking 20.2 kw . The field resistance is 50 ohm and the armature resistance is 0.06 ohm . what is the efficiency and power input when output is 10hp.?

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INTERNAL EXAM :1

SEM: 4TH

SUB : EC-1

FULL MARK : 10

Q1 (I) : The armature of dc machine is made out of ?

(II): Armature core is lamination to reduce ?

(III): In a dc generator which part converts AC to DC ?

(IV): How much parallel paths are there in a wave wound armature ?

(V): How can hysteresis loss be minimized ?

Q2: Drive the emf equation of a DC generator ?

Q3: Write down the working principle of DC motor ?