

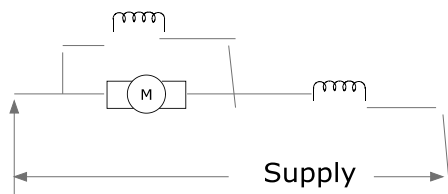
**G044 Online Test**

Ref394

Power provided by dc generator is

A	$P = B L V I$	B	$P = B I V$
C	$P = B I L$	D	$P = B L V$
<b>Answer</b>			

Ref395



This connection is

A	Short shunt compound	B	Shunt
C	Series	D	Long shunt compound
<b>Answer</b>			

Ref396

Calculate the coil span for

- (a) 36 slots, 4 poles simplex lap (b) 36 slots, 2 poles, Duplex wave

A	1 to 7, 1 to 36 & 1 to 32	B	1 to 9, 1 to 38 & 1 to 34
C	1 to 8, 1 to 37 & 1 to 33	D	1 to 10, 1 to 39 & 1 to 35
<b>Answer</b>			

Ref397

The brushes on a 0.4 m diameter commutator are rocked 0.03m circumferentially. The machine has 6 poles, simplex lap wound, 378 conductors 800 Armature current. Calculate cross magnetizing and de-magnetizing ampere turn / pole.

A	1250 AT/pole, 3000 AT /pole	B	600 AT/pole, 1500 AT /pole
C	300 AT/pole, 750 AT /pole	D	150 AT/pole, 375 AT /pole
<b>Answer</b>			

Ref398

Motor particulars 3.75 KW, 230V, 18A, 1750 rpm  $R_a=0.3\Omega$  , brush drop 2V on load.

Calculate final torque if field flux is reduced to 96%

A	40 N-m	B	100 N-m
C	150 N-m	D	50.56 N-m
Answer			

Ref399

7.5KW 230V 1750 rpm shunt motor, armature resistance  $0.35\Omega$ , shunt field resistance  $62.2\Omega$

If no load current is 7.7 amp, full load efficiency 86% , brush drop 3V at full load & 1 V at no load.

Calculate % regulation.

A	12%	B	10%
C	5.7%	D	15%
Answer			

Ref400

The winding resistance of a 500V, 60KW dc shunt motor are  $R_a=0.2\Omega$   $R_f=200\Omega$ , mechanical losses are 1.4KW. Determine the efficiency of the machine.

(a) When the line current is 102.5A (b) At full load.

A	70%, 75%	B	78%, 87%
C	95%, 93%	D	90.93%, 90.9%
Answer			

Ref401

The resistance of an armature winding at  $25^\circ\text{C}$  was found to be  $0.26\Omega$ . After a heat run , it becomes  $0.296\Omega$ . Calculate the temperature rise of the winding.

A	$\Delta t = 70^\circ\text{C}$	B	$\Delta t = 15^\circ\text{C}$
C	$\Delta t = 36^\circ\text{C}$	D	$\Delta t = 12^\circ\text{C}$
Answer			

Ref402

A 75KW 500V generator has a voltage regulation 4% , calculate

- (a) The open circuit voltage
- (b) Assuming the voltage varies uniformly between no load and full load current. Calculate the KW output of a terminal voltage 510V.

A	520V, 38.25 KW	B	250V, 10 KW
C	500V, 20 KW	D	500V, 10 KW
Answer			

Ref403

A 4 poles wound armature operating in a field of flux 0.01wb in wound with 360 armature conductors. Determine the expression of torque as a function of speed. If  $V_t=250V$  and  $R_a=0.1\Omega$ .

A	2860 – 1.38N	B	2000- 2N
C	3000 – 4N	D	1000 – 1.3 N
Answer			

Ref404

The resistance of the armature of a 240V dc shunt motor is  $0.5\Omega$  . It is required that the current at starting be limited to 200% of full load current & full load current is 15A.

Determine

- (a) Total resistance of armature current at starting
- (b) The number of studs on the starter
- (c) r3.

A	$8\Omega, 4, 1\Omega$	B	$10\Omega, 3, 0.5\Omega$
C	$8\Omega, 2, 1\Omega$	D	$4\Omega, 2, 1\Omega$
Answer			

Ref405

Which is not a dc motor braking method?

A	Ward Leonard	B	Dynamic braking
C	Mechanical braking	D	Plugging
Answer			

Ref 406

Which equipment does not produce ripple?

A	PWM Switching	B	DC Generator
C	Rectifier circuit	D	PV Inverter
Answer			