Module 9 Electric Motor

Name:	Date:

Part A: Multiple choice question (MCQ)

1) Material which weak in magnetic field is?

(a) silver
(b) copper
(c) iron
(d) aluminium

2) Which hand rule applying for electric motor?

(a) right thumb
(b) left hand rule
(c) right hand rule
(d) left thumb

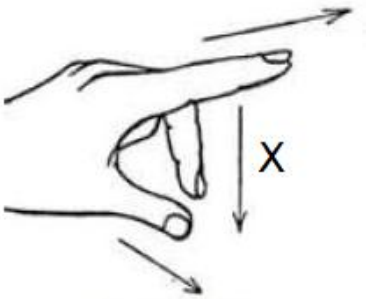
3) In Fleming Right Hand rule, the thumb representing.

(a) direction of flux strength
(b) direction of magnetic field
(c) direction of force
(d) direction of current

4) Right hand rule is principle for what application?

(a) heating element
(b) dynamo
(c) transformer
(d) electric motor

5)



Refer to figure above, the X marked indicating.

(a) direction of magnetic field
(b) direction of motion
(c) direction of current
(d) direction of power

6) Which is suitable fault when a motor has rotated in anti-clockwise direction?

(a) two terminal of 3 phase wrong
(b) overloaded
(c) reverse polarity
(d) forward bias

7) Which of the following listed below is correct for finding operating current?

(a) Ib = P ÷ V x eff
(b) Ib = P ÷ V x pf
(c) Ib = P ÷ V x eff x p.f
(d) Ib = V x p.f x eff

8) What type of energy is produced by electric motor?

(a) magnetism
(b) pneumatics
(c) electrical
(d) mechanical

9) Which is the correct formula to find speed of motor?

(a) RPM = Freq x nos of poles ÷ 120
(b) RPM = 120 x Freq ÷ nos of poles
(c) RPM = 120 x V
(d) RPM = Freq ÷ 120 x nos of poles

10) What is s.f indicated on a motor nameplate?

(a) sales factor
(b) service factor
(c) synchronous factor
(d) supply factor

11) List below are the motor nameplate information, except.

(a) full load ampere (FLA)
(b) motor speed (RPM)
(c) sensitivity
(d) service factor (s.f)

12) This motor is rated 7.6 HP, what is the actual power?

(a) 5669 volts
(b) 5669 watt
(c) 5669 ampere
(d) 5669 ohm

13) What is stator inside an electric motor?

(a) fixed winding non-moving part
(b) motor terminal
(c) winding design
(d) power factor of motor

14) List below are single phase motor, except.

(a) split phase motor
(b) shaded-pole motor
(c) universal motor
(d) poly-phase motor

15) Capacitor run motor are also known as.

(a) dynamo
(b) synchronous motor
(c) permanent split phase motor
(d) capacitor motor

16) What is the purpose of overcurrent relay?

(a) to protect motor from sudden stop
(b) to protect motor from higher voltage
(c) to protect motor from overload
(d) to protect motor from reverse operation

17) What is the element inside the OCR device?

(a) capacitor
(b) bimetal strip
(c) fuse
(d) filament wire

18) How do you identity if a motor is reverse direction?

(a) looking at the rotation of motor
(b) checking the current flow
(c) measuring the voltage value
(d) calculate the speed

19) A motor running noisy, what could be the cause for this?

(a) lubrication needed
(b) motor alignment need adjustment
(c) power factor is low
(d) motor overspeed

20) Which of the following is no a voltage reduction starter circuit?

(a) auto-transformer
(b) primary resistance
(c) inverter drive
(d) star-delta

Part B: Subjective Question

1) List down three (3) example of single phase motor?

a)…….

b) ……

c)……..

2) A three phase motor rated 10 HP with efficiency of 89% and power factor of 0.86, find the rated current of this motor?

3) List five (5) information can be found on a motor nameplate.

i) ……

ii) ……

iii) ……

iv) ……

vi) ……
489

4) A three phase motor rated speed is 1200 RPM, when connected to a mechanical load the speed drop to 1120 RPM, calculate the percentage slip speed.

5) The motor consist of 6 pole and is operating at 58 Hertz frequency, calculate the speed of the motor.

6) List three types of motor start circuits.

a)…….

b) ……

c)……..