Name:	Date:

8)

Part A: Multiple choice question (MCQ)

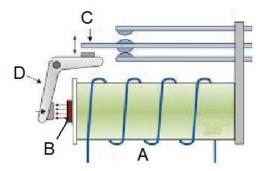
- 1) What is (+) terminal known as?
 - (a) anode
 - (b) cathode
 - (c) live
 - (d) ground
- 2) Two or more batteries connected in series, what is the expected outcome?
 - (a) total voltage is same unchange
 - (b) total voltage will decrease
 - (c) total voltage will increase
 - (d) total current will increase
- 3) The internal resistance of a battery is affected by the followings, except.
 - (a) the size and the number of plates.
 - (b) the distance between the plates.
 - (c) type of separator.
 - (d) voltage terminal when open is higher
- 4) List below are the primary cell, except.
 - (a) Alkaline battery
 - (b) Lithium battery
 - (c) Lead acid battery
 - (d) Mercury battery
- 5) Relay operated by principle of.
 - (a) magnetic field
 - (b) induction
 - (c) capacitance
 - (d) reactive

- 6) What is the standard color for negative terminal of battery?
 - (a) red
 - (b) yellow
 - (c) green
 - (d) black
- 7) General rules of proper maintenance, except.
 - (a) match the charger to battery
 - (b) Avoid over-discharging
 - (c) place a RCD on the charger controller
 - (d) Keep the battery clean.



Figure above showing what type of timer?

- (a) electronic
- (c) mechanical
- (b) electrical
- (d) AC timer
- 9) What is the limit current for a relay contact?
 - (a) 1000 A
 - (b) 60 A
 - (c) 5 A
 - (d) 0.5 A
- 10) Refer to figure below which is label identify the yoke?



- 11) What does N.C means?
 - (a) number code
 - (b) normal control
 - (c) normally close
 - (d) normally covered
- 12) This cross flow fan is also known as.
 - (a) blower
 - (b) tangential
 - (c) exhaust fan
 - (d) ceiling fan
- 13) A _____ is a device to regulate the control of heating element. The best answer to fill in the blank is.
 - (a) coil
 - (b) heater
 - (c) regulation
 - (d) thermostat
- 14) Heating element is basically a _____ load.
 - (a) power
 - (b) resistive
 - (c) capacitive
 - (d) inductive

15)



Refer to the figure above, this is known as.

- (a) heating element
- (b) thermostat
- (c) resistors
- (d) coil

- 16) What is the acceptable value for earth resistance test?
 - (a) $> 1\Omega$
 - (b) $< 1\Omega$
 - (c) $>100 \Omega$
 - (d) $<100 \Omega$
- 17) Insulation resistance test must have minimum value to be consider cable is not faulty.
 - (a) < 200 Ω
 - (b) $> 1 \Omega$
 - (c) $< 10,000\Omega$
 - (d) > 1 M Ω
- 18) What is the acceptable tripping time for a residual current circuit breaker to pass the tests?
 - (a) < 10 ms
 - (b) < 40 ms
 - (c) < 500 ms
 - (d) <1000 ms
- 19) What is the aspected value reading on multimeter if a line is broken?
 - (a) ∞
 - (b) $>1M \Omega$
 - (c) 200 Ω
 - $(d) \Omega$
- 20) What is the acceptable value for earth fault loop impedance, Zs?
 - (a) $> 1\Omega$
 - (b) $< 1\Omega$
 - (c) $>100 \Omega$
 - (d) $<100 \Omega$

Part B: Subjective Question

1)	Name two(2) example of secondary cell.
	a)
	b)
	c)
2)	List four (4) disadvantages of lead acid batteries
	i)
	ii)
	iii)
	iv)
3)	The open circuit voltage of a lead acid battery is 12 volt. When a 72 Ω load is connected to the terminal voltage, it reads 10.2 volts. Find the internal resistance of the battery (Ri)?
4)	List three (3) types of fans.
	i)
	ii)
	iii)
5)	List down 4 types of test before supply connected (DEAD Test)
3)	i)i)
	ii)
	iii)
	iv)
6)	List down 3 inspection requirements to be done after completed wiring installation.
	i)
	ii)
	iii)