#### Module 8: Transformer

Name:	Date:

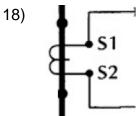
### Part A: Multiple choice question (MCQ)

- What does the meaning of "step up" in transformer?
  - (a) increase power
  - (b) increase current
  - (c) increase frequency
  - (d) increase voltage
- 2) The secondary winding properties of a step up transformer is correct, except.
  - (a) secondary coil have many turns
  - (b) current is low
  - (c) higher voltage possible
  - (d) low power generated
- 3) The followings are the types of core material made for a transformer, except.
  - (a) iron core
  - (b) aluminium core
  - (c) steel core
  - (d) air core
- 4) The power of transformer in the primary is \_\_\_\_ with secondary. The best answer filling the blank is.
  - (a) same
  - (b) higher
  - (c) lower
  - (d) unity
- 5) Which of the correct unit for burden of a transformer?
  - (a) volts
  - (b) ampere
  - (c) watt
  - (d) volt-ampere

- 6) The electromagnetic induction was discovered by.
  - (a) Micheal Wong
  - (b) Joseph Faraday
  - (c) Michael Henry
  - (d) Michael Faraday and Joseph Henry
- 7) The primary of a transformer refers to.
  - (a) motor winding
  - (b) connected from incoming supply source
  - (c) connected from outgoing supply
  - (d) connected to a motor
- 8) Magnetic field induces a varying electromotive force in the secondary winding, this effect is called.
  - (a) flux density
  - (b) magnetic flux
  - (c) mutual induction
  - (d) mutual magnetic field
- 9) The Vp=1000v, Vs=320v, Np=1800T, find the value of Ns?
  - (a) 576 T
  - (b) 2005 T
  - (c) 2305 T
  - (d) 3540 T
- 10) The Vp=220v, Np=500T, Ns=220T, find the value of Vs?
  - (a) 35.3 volt
  - (b) 64.5 volt
  - (c) 96.8 volt
  - (d) 120.8 volt

- 11) This transformer is used to supply electricity to every areas. The suitable type of transformer describe is.
  - (a) isolation transformer
  - (b) power transformer
  - (c) voltage transformer
  - (d) distribution transformer
- 12) This is a small unwanted current floating in the core material known as.
  - (a) distortion current
  - (b) harmonics current
  - (c) eddy current
  - (d) hysteresis current
- 13) This transformer is used to protect against electric shock and to suppress electrical noise. The best answer describes above is.
  - (a) isolation transformer
  - (b) power transformer
  - (c) voltage transformer
  - (d) current transformer
- 14) Auto transformer is best used for...
  - (a) to increase voltage
  - (b) to increase power
  - (c) to reduce voltage to a fixed value
  - (d) to reduce current to a fixed value
- 15) Which is the common method of cooling a transformer?
  - (a) ONAF Oil Natural Air Force
  - (b) OFAF Oil Forced Air Natural
  - (c) OFWF Oil Forced Water Forced
  - (d) ONAN Oil Natural Air Natural

- 16) The instrument transformer is best apply for purpose.
  - (a) measurement of reactive power
  - (b) measurement of voltage
  - (c) measurement of cos meter
  - (d) measurement of power
- 17) Voltage transformer is also known as.
  - (a) electron transformer
  - (b) current transformer
  - (c) potential transformer
  - (d) power transformer



Refer to figure above, the S2 is commonly connected to where?

- (a) earth terminal
- (b) voltage transformer
- (c) current transformer
- (d) power transformer
- 19) Refer to figure question 18, what is the maximum current output from this device?
  - (a) 10 ampere
  - (b) 5 ampere
  - (c) 2.5 ampere
  - (d) 1 ampere
- 20) The concept of knee point voltage is act
  - (a) protection current transformer
  - (b) protection voltage transformer
  - (c) protection power transformer
  - (d) protection isolation transformer

# Part B: Subjective Question

1)	List down three(3) reasons transformer is generate heat.		
	i)		
	ii)		
	iii)		
2)	List down five (5) types of transformer		
	i)		
	ii)		
	iii)		
	iv)		
	v)		
3)	List four (4) types of cooling method in transformer. (10 marks)		
·	i)		
	ři)		
	iii)		
	iv)		
4)	a) Given the value of Vp = 400v, Vs=90v, Ip=35A, find Is?		
	b) Given the value of Vp = 400v, Vs=90v, Ip=35A, find Is?		
5)	List down four (4) application of transformer.		
	i)		
	ii)		
	iii)		
	iv)		

## Answer Scheme for Exercise

## Part A: MCQ

1) D	11) <b>D</b>
2) <b>D</b>	12) <b>C</b>
3) <b>B</b>	13) <b>A</b>
4) <b>A</b>	14) <b>C</b>
5) <b>D</b>	15) <b>D</b>
6) <b>D</b>	16) <b>B</b>
7) <b>B</b>	17) <b>C</b>
8) <b>C</b>	18) <b>A</b>
9) <b>A</b>	19) <b>B</b>
10) <b>C</b>	20) <b>A</b>