

Transformers

- 1). What is the function of conservator tank in a transformer?
(A) Prevents the moisture entry
(B) Transfers the heat to atmosphere
(C) Allows to release internal pressure
(D) Allows expansion of oil level due to load variation
Correct Answer : D

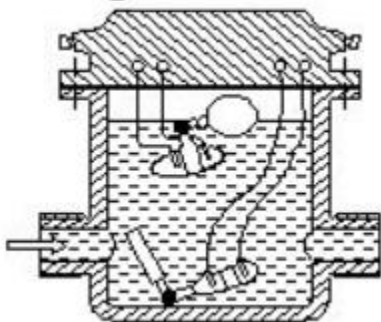
- 2). Which is determined by the crackle test of transformer oil?
(A) Acidity
(B) Moisture
(C) Viscosity
(D) Dielectric strength
Correct Answer : B

- 3). Which loss of the transformer is determined by the short circuit test?
(A) Copper loss
(B) Windage loss
(C) Hysteresis loss
(D) Eddy current loss
Correct Answer : A

- 4). What is the purpose of tap changer in the power transformers?
(A) Maintain the primary voltage constant
(B) Maintain the voltage ratio constant
(C) Maintain the secondary voltage constant
(D) Load the transformer for maximum efficiency
Correct Answer : C

- 5). How to determine the core loss in a transformer?
(A) By ratio test
(B) By impulse test
(C) By short circuit test
(D) By open circuit test
Correct Answer : D

- 6). What is the name of the part in power transformer as shown in the figure?

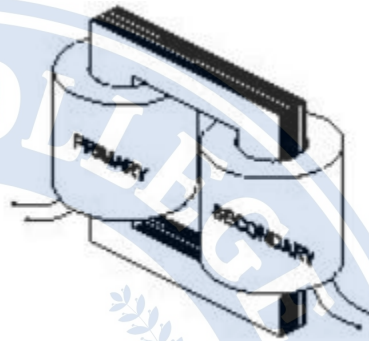


- (A) Breather
(B) Tap charger

- (C) Explosion vent
(D) Buchholz relay
Correct Answer : D

- 7). What is the disadvantage of auto transformer?
(A) More losses
(B) Heavier in weight
(C) Poor voltage regulation
(D) Cannot isolate the secondary winding
Correct Answer : D

- 8). What is the name of the transformer as shown in the figure?



- (A) Auto transformer
(B) Core type transformer
(C) Shell type transformer
(D) Audio frequency transformer
Correct Answer : B

- 9). Why the primary of a distribution transformers are connected in delta and the secondary in star?
(A) To avoid the over loading
(B) To maintain the constant load
(C) To reduce the transformer losses
(D) To distribute the 3 phase 4 wire system
Correct Answer : D

- 10). What is the advantage of stepped core arrangement in the larger transformers?
(A) Minimizes the copper use
(B) Reduces the hysteresis loss
(C) Reduces the eddy current loss
(D) Reduces the space for core
Correct Answer : A

- 11). Why the core of the current transformer is having low reactance and low core loss?
(A) To maximise the burden
(B) To maintain the constant output voltage
(C) To prevent the high static shield
(D) To minimise the error in the reading
Correct Answer : D

12). Which method of cooling is used for distribution transformer up to 100 KVA?

- (A) Forced oil cooling
- (B) Oil natural water forced cooling
- (C) Forced circulation of oil
- (D) Natural air cooling

Correct Answer : D

13). Calculate the voltage regulation of the transformer in percentage if the no load voltage is 240 volt and full load voltage is 220 volt?

- (A) 0.072
- (B) 0.083
- (C) 0.0871
- (D) 0.0909

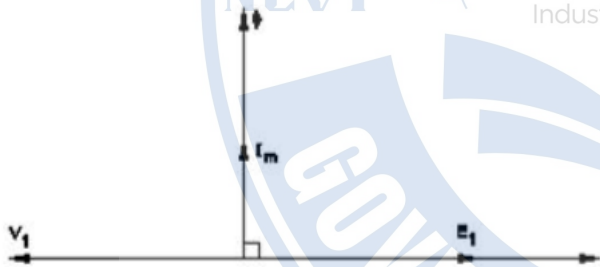
Correct Answer : D

14). What is the function of top float switch of buchholz relay in the transformer?

- (A) Activate in moisture presence
- (B) Activate at overloading condition
- (C) Activate at open circuit condition
- (D) Activate at low temperature condition

Correct Answer : B

15). What is the relationship between the primary voltage (E_1, V_1) and secondary voltage (E_2, V_2) in a ideal transformer?



- (A) $E_1 = V_1$ and $E_2 = V_2$
- (B) $E_1 > V_1$ and $E_2 > V_2$
- (C) $E_1 < V_1$ and $E_2 < V_2$
- (D) $E_1 = V_2$ and $E_2 = V_1$

Correct Answer : A

16). Which type of the transformer is used for high frequency application?

- (A) Ring core transformer
- (B) Ferrite core transformer
- (C) Silicon steel core transformer
- (D) Grain oriented core transformer

Correct Answer : B

17). Which construction technique is used to reduce the copper loss in the large transformers?

- (A) By using of solid core
- (B) By increasing core thickness

- (C) By using hot rolled steel core
- (D) By using stepped core arrangement

Correct Answer : D

18). Why the load of a power transformer is disconnected before the off load tap changing operation?

- (A) To disconnect the tappings from neutral point
- (B) To disconnect the moving contact of the diverter
- (C) To avoid the heavy sparking at the contact points
- (D) To provide an electrical isolation for the windings

Correct Answer : C

19). Why the ferrite core is used in radio receivers?

- (A) To reduce the constant losses
- (B) To reduce the electric interference
- (C) To increase the quality of sound
- (D) To decrease the efficiency of receivers

Correct Answer : A

20). Which material is used to make the core of power transformer?

- (A) Soft iron
- (B) Hot rolled steel
- (C) Copper alloy
- (D) Cold rolled grain oriented steel

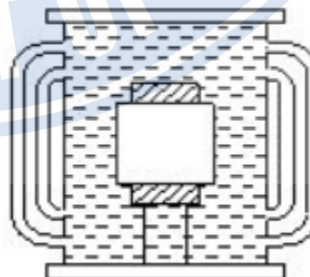
Correct Answer : D

21). What is the effect on CT if its secondary is kept open?

- (A) CT primary burns out
- (B) Volt ampere capacity reduces
- (C) Volt ampere capacity increases
- (D) CT secondary winding burns out

Correct Answer : D

22). What is the cooling method of the transformer as shown in the figure?



- (A) Oil natural cooling
- (B) Oil natural air forced cooling
- (C) Oil forced air forced cooling
- (D) Oil natural water forced cooling

Correct Answer : A

23). Which condition is to be satisfied if two single phase transformers are connected in parallel?

- (A) Same capacity
- (B) Same polarity
- (C) Same cooling method
- (D) Same type

Correct Answer : B

24). Which type of emf is induced in an auto transformer?

- (A) Self induced emf
- (B) Mutually induced emf
- (C) Eddy current emf
- (D) Dynamically induced emf

Correct Answer : A

25). How the error in the readings of the potential transformer can be reduced?

- (A) Using thick laminated core
- (B) Providing long magnetic path
- (C) Using low flux density material
- (D) Providing low quality core material

Correct Answer : C

