Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
(ONLINE)
SEMESTER II
SESSION 2019/2020

COURSE NAME	:	SWITCBOARD MAINTENANCE AND CALIBRATION
COURSE CODE	:	BBJ 10505
PROGRAMME CODE	:	BBJ
EXAMINATION DATE	:	JULY 2020
DURATION	:	1 HOUR
INSTRUCTION	:	ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

Answer all questions

PART A

S1. What is maintenance?

A. Perform repairs
B. Implement the reform
C. Perform cleaning
D. Perform conservation, maintenance, operation and regulation

S2. Where is the maintenance of electrical appliances performed?

A. Workshop
B. Home
C. Office
D. Free area

S3 What is one (1) function of low voltage switchboard?

A. Distribute electricity to the park
B. Provides electricity
C. Measure the electric current
D. Provide energy sources

S4. What is one (1) component of a low voltage switchboard?

A. Volt meter
B. Transformer
C. Generator
D. Dividing machine

S5. Why is low voltage switchboard maintenance important?

A. Prevents oil spills
B. Guaranteed quality of service
C. Avoid injury
D. Put out the fire

S6. How to improve power factor?

A. Install a bank capacitor
B. Lower the voltage value
C. Increase the value of the current
D. Maintaining a level of stability

S7. What is the best value of power factor?

A. 0.5
B. 0.1
C. 1
D. 0.95

S9. What is incorrect about the purpose of the emergency procedure?

A. To save lives
B. To control the situation and limit the damage
C. To control and stop the cause of the accident
D. To increase the value of the current

S10. Why improve power factor?

A Because it increases the cost of equipment
B. Because it increases reliability
C. For saving fire
D. Because it reduces equipment costs

S11. What is the voltage stability?

A. Ability of power system to maintain acceptable voltage at all the buses in the system are in normal condition and after a disturbance.
B. Low voltage
C. Voltage on Air Circuit Breaker
D. Volumes that help leak

S12. Why are protection devices important?

A. Provides protection against injury and damage to equipment
B. Ensure that the current is not excessive
C. Ensure no cost increase
D. Analyze meter capabilities

S13. What the first step is to remove the Air Circuit Breaker (ACB) from the switchboard low voltage?

A. Turn off the power supply
B. Turn on the power supply
C. Remove the Transformer
D. Remove the current meter

S14. What is one (1) name of the precautionary measure of the Air Circuit Breaker (ACB) wrong?

A. Transportation Precaution
B. Installation Precaution
C. Operation Precaution
D. Maintenance Precaution

S15. Why are the words danger (caution) and caution different?

A. Due to different levels of injury
B. Because of different death rates
C. Due to the very low level of injury
D. Because of the similarity of the level of injury

Q15. Why are the risks of danger and caution different?

A. Due to different levels of injury
B. Because of the different causes of death
C. Due to the very low level of injury
D. Because of the similarity of the level of injury

Q16. What is the correct statement about the CAUTION Maintenance and Inspection Precaution of Air Circuit Breaker for Low Voltage Swithboard?

A. ACB maintenance, inspection and part replacement must be performed by professor.
B. Do not tounch ACB current carrying and ACB structural parts close to a current carrying part immediately after the ACB trips open. Remaining heat may cause a burn.
C. Do not take care to avoid adhesion of dust to main and control circuit contacts.
D. Perform dielectric withstand tests under other condition than specified.

Q17. What is the incorrect statement about Installation Precautions of Air Circuit Breaker for Low Voltage Swithboard?

A. Never touch live terminal parts.
B. Electrical work must be done by competent person.
C. When terminating conductor to the ACB, tighten terminal screws to the torque specified.
D. Be careful to prevent foreign object.

Q18. What is the correct statement about DANGER operation precautions of Air Circuit Breaker for Low Voltage Swithboard?

A. Do not force down charging hadle after completion of manual charging operation.
B Never tounch live terminal parts.
C. The permissible operating voltage of spring charging motor is 85 to 110% of the rate ac voltage or 75 to 110% of the rated dc voltage.
D. Make sure draw-out cradle is secured with mounting screws before inserting or drawing out breaker body.

Q19. What is the name of one of the parts on the front view Air circuit Breaker (ACB)?

A. Overcurrent Release (OCR)?
B. Round terminal
C. Arc Chamber
D. Mold Base

Q20. What is the function of Overcurrent Release (OCR)?

A. Allow breaker body to be moved abd draw-out rail.
B. Prevent broker body from failing when body is drawn-out candle.
C. Push to open ACB
D. As a protective device to instructs magnet hold trigger (MHT) to trip open ACB

PART B

Q1. Maintenance, Inspection and Part Replacement are very important task to competent person of Air Circuit Breaker (ACB).

Q1(a) Write ten (10) CAUTION Inspection Procedures.

(5 marks)

Q1(b) Decribe how to replace arc chambers.

(10 Marks)

Q2. Troublesshooting Flowcharts are very important to a competent person.

Q2(a). Draw Remedial actions againt a symptom Flowchart of "charging imposible".

(5 marks)

Q2(b). Describe four (4) differences between flowchart of "charging imposible and opening imposible".

(10 marks)

- END OF QUESTIONS -