



UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2021/2022**

- COURSE NAME : BUILDING SERVICES AUDIT &
INSPECTION
- COURSE CODE : BNB 41203
- PROGRAMME CODE : BNB
- EXAMINATION DATE : JULY 2022
- DURATION : 3 HOURS
- INSTRUCTION : 1) ANSWER ALL QUESTIONS
- 2) THIS FINAL EXAMINATION IS
CONDUCTED VIA CLOSED
BOOK
- 3) STUDENT ARE PROHIBITED
TO CONSULT THEIR OWN
MATERIAL OR ANY EXTERNAL
RESOURCES DURING THE
EXAMINATION CONDUCTED
VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

TERBUKA

- Q1** (a) Visual inspection is the common task for maintenance as well as inspection work. Classify **FIVE (5)** challenges issues in implementing visual inspection for mechanical and electrical system. (10 marks)
- (b) Recommend the systematic approach for visual inspection process that can be increased the accuracy of “search” and “decide” components in visual inspection. (15 marks)
- Q2** (a) Explain **THREE (3)** benefits of root cause analysis (RCA) in maintenance management. (6 marks)
- (b) Differentiate the method use between Pareto diagram and control chart in root cause analysis (RCA). (4 marks)
- (c) Your organization required to perform the root cause analysis (RCA) due to some repetitive failure occur in mechanical system. Design your appropriate flow of RCA to ensure the RCA can resolve the problem. (15 marks)
- Q3** (a) The endemic transition phase announced by the government will see commercial properties operate optimally after two years of operating below the minimum level. It is therefore critical to evaluate the building's assets and facilities to the highest level possible to avoid consumer dissatisfaction through specific inspections. As a Building Services Engineering Technologist, review how the inspection is conducted in ensuring that the following assets and facilities can function and fulfill their functions.
- i. Mechanical Services. (8 marks)
- ii. Electrical services. (8 marks)
- (b) If a problematic building structure is discovered during the commercial building inspection, indicate the next steps that must be taken. Create a simple flow chart to illustrate your answer. (9 marks)

Q4 (a) The proclivity of an organisation in charge of building management and maintenance to maximise profits through cost savings and budget cuts is viewed as a factor influencing the quality of Planned Preventive Maintenance (PPM). Explain, using appropriate examples, how cost savings and budget cuts can affect the quality of PPM.

(15 marks)

(b) Justify **FIVE (5)** key operational excellence of best Planned Preventive Maintenance (PPM) practices for a Rural Transformation Centre (RTC), considering financial constraint and customer satisfaction.

(10 marks)

-END OF QUESTIONS-