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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017**

TERBUKA

COURSE NAME : BUILDING SERVICES AND
MAINTENANCE

COURSE CODE : BPE 33802

PROGRAMME CODE : BPD

EXAMINATION DATE : DECEMBER 2016/JANUARY 2017

DURATION : 2 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

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Q1 (a) Explain the strategic and tactical maintenance. (10 marks)

(b) Discuss **THREE (3)** types of maintenance strategies. (15 marks)

Q2 Foundation is an important element in building construction. Its failure may lead to defective of building structure and in certain cases may cause building to collapse.

Describe with the aid of relevant sketches of the following.

(a) Evaporation (5 marks)

(b) Transpiration (5 marks)

(c) Plumbing Leaks (5 marks)

(d) Improper Drainage (5 marks)

(e) Poor Soil Conditions (5 marks)



Q3 (a) Sewerage system serves for the removal of waste water from the building. It concerns not only the functionality of the plumbing systems but also the protection of health of the building occupants.

Explain **THREE (3)** types of vented waste system. (15 marks)

(b) Illustrate **TWO (2)** types of water supply piping system in a building with the aid of relevant sketches. (10 marks)

- Q4** Planning for a fire protection system involves an integrated approach in which system designers should take into account building use, occupancy, footprint, and other installed systems.
- (a) Differentiate between ACTIVE and PASSIVE fire protection system (10 marks)
 - (b) Explain the maintenance program for the following fire suppression system.
 - (i) Fire alarms (5 marks)
 - (ii) Suppression system (5 marks)
 - (iii) Fire pump (5 marks)

- END OF QUESTIONS -

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