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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
(ONLINE)  
SEMESTER II  
SESSION 2019/2020**

COURSE NAME : INFORMATION SECURITY PROJECT  
MANAGEMENT  
COURSE CODE : BIS 30703  
PROGRAMME CODE : BIS  
EXAMINATION DATE : JULY 2020  
DURATION : 2 HOURS  
INSTRUCTION : 1. ANSWER ALL QUESTIONS.  
2. PLEASE MAKE SURE TO UPLOAD  
REQUESTED MATERIALS AND  
CLICK "SUBMIT" BUTTON WITHIN  
30 MINUTES AFTER  
EXAMINATION PERIOD.

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

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**TERBUKA**

**Q1** You have been selected as one of the team members for a mobile health application (m-Health app) development project of the Guardian Pharmacy. In addition to the e-commerce modules, the app is collecting customers personal information and analyze their purchasing pattern. Your role as a Head of Secure Software consultant who responsible to plan the integration of security controls into software development phases. A secure software development model from the National Institute Standards and Technology (NIST) has been selected that includes Design, Development, Testing, Operations and Maintenance, and Disposal phase

(a) Describe **THREE (3)** properties of a secure software with **ONE (1)** example for each of the property in the context of Guardian Pharmacy m-Health app.

(6 marks)

(b) Illustrate a Gantt Chart of the Guardian Pharmacy m-Health app that include the NIST secure software development model.

(10 marks)

(c) Illustrate a Program Evaluation Review Technique (PERT) chart for the development phase that is consistent with the NIST Secure Software Development Model.

(8 marks)

(d) Covid-19 outbreak has affected the timeline of development phase in **Q1(c)**. Describe **TWO (2)** contingency plans for each of the element of Triple Constraint model.

(6 marks)

(e) Discuss **TWO (2)** potential security risks for each of the element of STRIDE model in the context of the Guardian Pharmacy m-Health app.

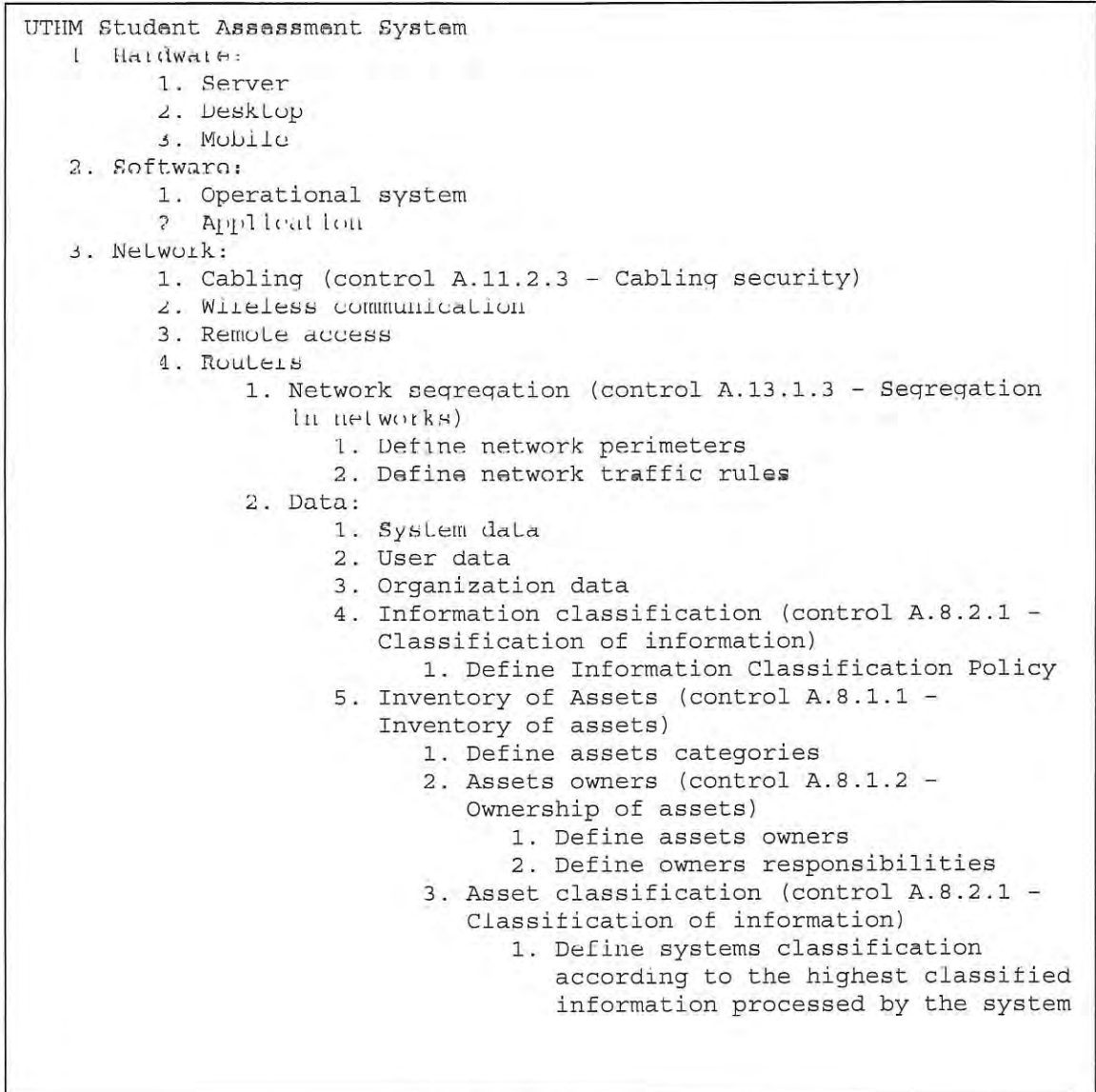
(12 marks)

(f) Discuss **SEVEN (7)** approaches of secure coding to mitigate data breach threats to the Guardian Pharmacy m-Health app.

(14 marks)

**Q2** Outline a Work Breakdown Structure diagram for UTHM Student Information System development based on **Figure Q2**.

(4 marks)



**FIGURE Q2**

**- END OF QUESTIONS -**

**TERBUKA**