



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION  
SEMESTER I  
SESSION 2014/2015

COURSE NAME	:	MEDICAL EQUIPMENT MANAGEMENT AND SAFETY
COURSE CODE	:	BEU 40902
PROGRAMME	:	3 BEJ / 4 BEJ
EXAMINATION DATE	:	DECEMBER 2014 / JANUARY 2015
DURATION	:	2 HOURS 30 MINUTES
INSTRUCTION	:	1. ANSWER ALL QUESTIONS 2. STUDENT ARE <b>NOT ALLOWED</b> TO BRING OUT THE QUESTION PAPER

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

- Q1**
- (a) Equipment Acceptance Test is conducted upon arrival of new medical equipment before it is placed into clinical use. List down the procedures involved. (5 marks)
- (b) Beyond Economic Repair (BER) is executed when the equipment is condemned and cannot be maintained by the Biomedical Engineering Maintenance and Services (BEMS).
- (i) Summarize the procedure and the person involved in execution of the BER. (6 marks)
- (ii) Point out **FOUR (4)** reasons for conducting BER. (4 marks)
- (c) Technical support respond to biomedical work request. Identify **FIVE (5)** key responsibilities of a Clinical Technical support. (10 marks)
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- Q2**
- (a) Medical technology management is a systematic process that begins with strategic planning, technology assessment, and facilities planning. Predict the problem that will occur if there is a lack in technology assessment performed by clinical engineers. (10 marks)
- (b) The term medical device covers a vast range of equipment.
- (i) Differentiate high risk, medium risk and low risk medical devices. (3 marks)
- (ii) Illustrates the major phases in the life span of a medical device. (4 marks)
- (c) Equipment management (EM) number can be used to schedule preventive maintenance of medical equipment. Show the procedure which determines the EM number and give an example for the calculation. (8 marks)

- Q3** (a) Hospital Accreditation is a mechanism for recognition of an institutional competency. Explain the advantages of Hospital Accreditation. (6 marks)
- (b) Medical Equipment can be classified according to its function. Explain the differences between therapeutic, diagnostic and analytical equipment. Give an example for each category. (9 marks)
- (c) Propose **FIVE (5)** guidelines to manage issues related to Electromagnetic Interference (EMI) and Electromagnetic Interference Compatibility (EMC) within the healthcare environment. (10 marks)
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- Q4** (a) Malaysian Society for Quality in Health (MSQH) is an independent accrediting body that accredited hospital in Malaysia. Summarize surveyor activities during the accreditation visit in hospital. (6 marks)
- (b) Classify and elaborate **FIVE (5)** types of medical waste produced in healthcare or in diagnostic activities. (10 marks)
- (c) As the Hospital Project Manager, one of your task is to lead waste management team in the hospital. Discuss your strategy to ensure that the hospital wastes are managed in compliance with national legislation and international conventions. (9 marks)

- END OF QUESTIONS -