

POLITEKNIK
Jabatan Pengajian Politeknik

EXAMINATION AND EVALUATION DIVISION
DEPARTMENT OF POLYTECHNIC EDUCATION
(MINISTRY OF HIGHER EDUCATION)

POLITEKNIK

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MECHANICAL ENGINEERING DEPARTMENT

FINAL EXAMINATION
DEC 2011 SESSION

J5290: PEMBUNGKUSAN GUNAAN

DATE : 8.30AM - 10.30AM
DURATION : 02 MAY 2012

This paper consist of **THREE (3)** pages including the front page.
Section A: Essay (6 questions – **answer 4** questions)

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CHIEF INVIGILATOR

QUESTION 1

- a) State the definition of require in packaging industry. (5 marks)
- b) State **FOUR** characteristics of defend industry product. (8 marks)
- c) Describe **FOUR** main criteria from customer requirement. (12 marks)

QUESTION 2

- a) State the definition of shelf life forecast system for the product. (5 marks)
- b) Explain **FOUR** external factor influence the shelf life of product. (8 marks)
- c) State **FOUR** advantages applied shelf life forecast system to define the efficiency of food packages. (12 marks)

QUESTION 3

- a) Differentiate **THREE** between pharmaceutical and food product (6 marks)
- b) Explain **FOUR** main characteristics defined the chemical product (9 marks)
- c) Describe **FIVE** technical requirement of electronic product. (10 marks)

QUESTION 4

- a) State the definition for the term below :-
i. Specification
ii. Packaging material
iii. Packaging function (6 marks)
- b) Describe the function of specification in packaging industry. (4 marks)
- c) State **FIVE** major item in specification form. (5 marks)
- d) Discus the packaging specification development process. (10 marks)

QUESTION 5

- a) State **TWO** types of specification in packaging industry. (5 marks)
- b) Explain the quality control in development of packaging specification. (8 marks)
- c) Compare between critical, major and minor class defect (12 marks)

QUESTION 6

- a) Write-on the complete specification (construction) for plastic bottle label that applied to the peanut cream. (10 marks)
- b) Write-on the complete specification(construction) with sketch for glass bottle that applied to the pharnaceutical product. (15 marks)