



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

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

COURSE NAME : INNOVATION AND
COMMERCIALIZATION
MANAGEMENT

COURSE CODE : BPB 32603

PROGRAMME CODE : BPA

EXAMINATION DATE : JUNE 2017

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

Q1 Mr. Adrian has been appointed as a Director of Research and Development (R&D) Department of Maju Jaya Machinery and Equipment Sendirian Berhad. The company produce various Food Industrial Steels Products. One of the new product that the company plan to produce is Vertical Blender as in **Figure Q1**. The company has decided to commercialize the product in Malaysia as well as exploring the ASEAN markets. Mr. Adrian need to come up with the product development planning and business model for the product.

Descriptions of the new product are as follows:

Vertical Blenders are an excellent design alternative for applications that are shear sensitive or where space on the plant floor is at a minimum. The gentle blending action of the slow turning blending screw is far gentler than that of a horizontal blender. The blending screw orbits the conical vessel wall while it turns and gently lifts material upward. The materials are then thrust at the upper most batch level towards the center of the vessel, and then move slowly back down the center, while mixing with materials being moved upward by the orbiting screw.

This design has several advantages: (1) Gentle blending action is ideal for friable or shear sensitive materials, (2) One blender can be used for a wide range of batch sizes, ranging from as small as 10% of the rated capacity, (3) Nearly 100% of the blended materials are discharged through the bottom valve after completion of the blend cycle, (4) Use nearly 50% less power per unit being blended, and (5) Less floor-space and are ideally suited to multi-story facilities.

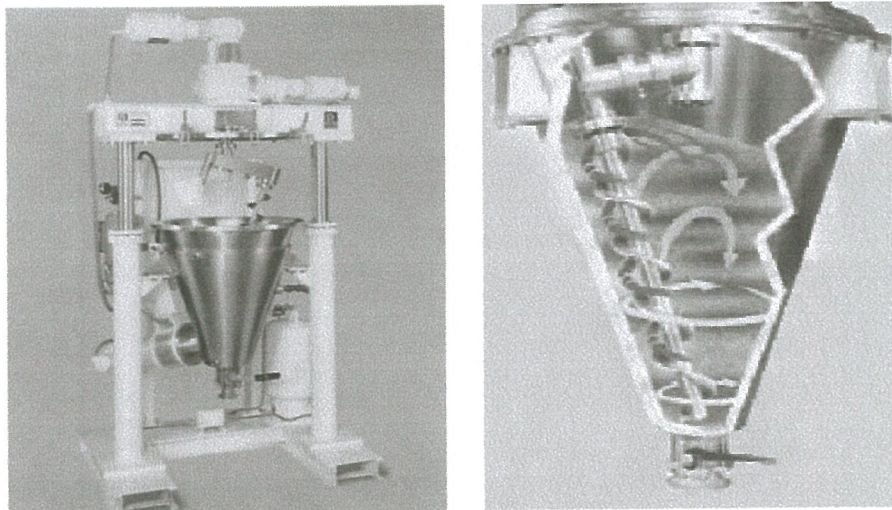


Figure Q1: Vertical Blender

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Based on the given information, answer the following questions:

- (a) Outline **SIX (6)** product development processes that Mr. Adrian needs to follow. (12 marks)
- (b) Explain **TWO (2)** appropriate choice of prototypes for the new product. (6 marks)
- (c) Describe **TWO (2)** options under Ansoff Product-Market Growth Matrix relevant to the new product. (4 marks)
- (d) Prepare the following aspects of Business Model Canvas that can be used by Mr. Adrian to commercialize the product using the Business Model Canvas as in Appendix 1. Please submit Appendix 1 with your answer scripts.
- (i) Key Activities
 - (ii) Customer Segment
 - (iii) Customer Relation
 - (iv) Channels
 - (v) Key partners
- (10 marks)
- (e) Discuss **FOUR (4)** major routes of commercialization business strategy. (8 marks)
- Q2**
- (a) Describe **THREE (3)** characteristics of primary research. (6 marks)
- (b) Explain **FOUR (4)** main characteristics of market segments based on Diffusion Theory by Roger (1995). (8 marks)
- (c) Describe **TWO (2)** segmentation variables. (4 marks)
- (d) List **TWO (2)** components of price. (2 marks)

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- Q3** (a) Illustrate **FOUR (4)** level of risk points associated with funding for commercialization, using an appropriate diagram. (8 marks)
- (b) (i) Differentiate between Angel Investors and Venture Capital. (4 marks)
- (ii) List **THREE (3)** criteria for Venture Capital's investments. (3 marks)
- (c) (i) Define seed funding. (2 marks)
- (ii) List **THREE (3)** eligibility criteria for seed funding. (3 marks)
- Q4** (a) Distinguish between Trade Secret and Patent. (4 marks)
- (b) Describe **THREE (3)** importance of Trade Secret in a competitive business environment. (6 marks)
- (c) List **FOUR (4)** categories of Patent. (4 marks)
- (d) Explain **THREE (3)** types of Patent. (6 marks)

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- END OF QUESTIONS -

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Business Model Canvas for Vertical Blender

Key Partners 	Key Activities	Value Proposition	Customer Relation	Customer Segments
	Key Resources		Channels	
Cost Structure	Revenue Streams			