



**UNIVERSITI TUN HUSSEIN ONN  
MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2011/2012**

COURSE NAME : PRODUCT DEVELOPMENT  
COURSE CODE : BPC 32403  
PROGRAMME : 3 BPB  
EXAMINATION DATE : JANUARY 2012  
DURATION : 2 HOURS 30 MINUTES  
INSTRUCTION : ANSWER ALL QUESTIONS

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

Q1 (a) Define the term product specifications. (5 marks)

(b) Search externally is a second step of a five-step concept generation method. Discuss **FIVE (5)** ways of gathering information from external sources. (20 marks)

Q2 (a) Explain about two-stage concept selection. (7 marks)

(b) Production team of company VV has identified seven potential concepts. The company also identified selection criteria to evaluate the concepts. In order to select a best concept, Concept-screening matrix was developed as shown in Table Q2 (b).

Suggest the most appropriate concept based of matrix given in table Q2 (b).

**Table Q2 (b): Concept-Screening Matrix**

Selection Criteria	CONCEPT						
	A	B	C	D	E	F	G
Ease of handling	0	0	-	0	0	-	-
Ease of use	0	-	-	0	0	+	0
Readability of settings	0	0	+	0	+	0	+
Dose metering accuracy	0	0	0	0	-	0	0
Durability	0	0	0	0	0	+	0
Ease of manufacture	+	-	-	0	0	-	0
Portability	+	+	0	0	+	0	0

(10 marks)

- (c) Concept-scoring technique is another technique widely used in industry to evaluate concepts. The developed concept-scoring matrix is shown in Table Q2 (c).

**Table Q2 (c): Concept-Scoring Matrix**

Selection Criteria	Weight (%)	CONCEPT						
		A	B	C	D	E	F	G
		WEIGHTED SCORES						
Ease of handling	5	4	3	4	4	3	4	4
Ease of use	15	4	4	4	3	3	4	4
Readability of settings	10	3	3	5	5	2	3	3
Dose metering accuracy	25	4	3	2	3	3	3	3
Durability	15	3	5	4	3	2	3	2
Ease of manufacture	20	4	3	2	2	3	3	4
Portability	10	4	3	3	3	4	4	2

Recommend the best concept among the seven concepts.

(8 marks)

- Q3 (a) Explain about factors favoring a larger sample size. (10 marks)
- (b) Modular architectures comprise three types: slot, bus and sectional. Explain the architectures by giving suitable examples. (15 marks)
- Q4 (a) Design a prototype for any selected product. (10 marks)
- (b) Explain the purpose of the designed prototype, based on Q4 (a). (7 marks)
- (b) Explain level of approximation of prototype for the designed prototype, based on Q4 (a). (8 marks)

**END OF QUESTION PAPER**