

THE OPEN UNIVERSITY OF SRI LANKA
 DEPARTMENT OF TEXTILE AND APPAREL TECHNOLOGY
 POST GRADUATE DIPLOMA IN TECHNOLOGY
 (APPAREL PRODUCTION & MANAGEMENT)
 FINAL EXAMINATION- 2015/2016
 TTX7139- PRODUCT DEVELOPMENT
 DURATION: 3 HOURS



Date: 27th November 2016

Time:1330-1630hrs

Total number of questions: 07

Number of questions to be answered: 05

Marks for each question are indicated at the end of the question.

- Q1. (a)** Develop a product development model for a new apparel design and divide the whole development process into five phases as given in overall creation model for product design and development. (40 marks)
- (b)** Write a short note on "Strategic design" of a company, considering its ultimate results, its relation to business mission and the ways of expanding the business. (30 marks)
- (c) (i)** Using SWOT analysis, how do you evaluate the strategic position of a company doing apparel business? (20 marks)
- (ii)** What is meant by "Fashion trends forecasting" (10 marks)
- Q2. (a)** Competitor analysis is done for a product in the market in three main steps. . Briefly explain how you would do this using these three steps. (30 marks)
- (b)** With suitable examples, briefly explain various levels of competition for a Coca cola drink available in the beverage market. (30 marks)

- (c) (i) Draw a demand curve and explain the behavior of the quantities represented in the demand curve. Using this curve, explain the law of demand for a particular product. (20 marks)
- (ii) Briefly explain the relationship between manufacturer's and consumers' technological knowledge using a suitable diagram (20 marks)
- Q3. (a) Colour is one the main ingredients used in fashion designing. Selection of a suitable colour for an apparel design depends on several factors. Briefly explain any four (04) of these factors giving suitable examples for each. (20 marks)
- (b) "Fashion designer can change the image of natural silhouette of a human body using optical illusion technique". Justify this statement with suitable examples. (30 marks)
- (c) (i) Differentiate "Product line" and "Product mix" concepts. (10 marks)
- (ii) During the product range (product mix) planning, garments are categorized based on several factors. Explain these factors. (40 marks)
- Q4. (a) What is meant by "Break even analysis"? Give two formulas that are used in the calculation of break even prices (P) and break even volume (V). (30 marks)
- (b) An apparel retailing company sells a blouse for Rs. 550/= . The company has a variable cost of Rs.100/= per blouse and fixed cost of Rs. 300,000/= . The estimated sale per season is 3000 blouses.
- (i) How many blouses must the manufacturer sell to break-even? (20 marks)

- (ii) How much profit would the company make at the end of the season, from one blouse, if the VAT is 15%? (20 marks)
- (iii) What is the net income, if the sales drop by 20% in the next year? (15 marks)
- (iv) What is the break even point of sales in rupees, if the variable cost per blouse increases by 10% in the next year? (15 marks)
- Q5. (a) In apparel manufacturing companies it is normal to do pre-costing and post costing. What is meant by these two types of costing and why these two costing procedures are important? (30 marks)
- (b) "Pricing a product depends on several external factors of the company". Briefly explain this statement using three (03) of these factors giving appropriate examples for each of them. (30 marks)
- (c) There are eight stages to go through in the process of pricing any product. Briefly describe each of them and explain why each of these stages are important to decide a price of a particular product? (40 marks)
- Q6. (a) Briefly explain what is brand management and what benefits are gained through doing this in product marketing. (30 marks)
- (b) With suitable examples briefly explain how a garment industry can today practice green fashion. (30 marks)
- (c) Briefly explain any four (04) ethical practices adopted by the Sri Lankan apparel industry under the "Garments without guilt" initiative. (40 marks)
- Q7. (a) In lean manufacturing, there are several types of wastes described as "Muda". List five (05) of them and explain why each of them can be

considered as wastes. What will be the consequences, if a company has such five wastes? (40 marks)

(b) What is meant by "Just in time" principle and briefly explain why this is important today for any production organisation. (30 marks)

(c) What is meant by "Quick response manufacturing" and briefly give an account on the advantages that can be gained from this practice. (30 marks)