

THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering & Technology

# DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

# HIGHER DIPLOMA IN COMPUTER STUDIES

FINAL EXAMINATION

**APRIL/MAY 2010 SERIES** 

# BUSINESS COMPUER APPLICATION

**TIME: 2 HOURS** 

#### **Instructions to Candidates**

- 1. The paper composes of **FIVE** Questions.
- 2. Answer any THREE Questions.
- 3. Use the following where applicable: Present Value Table (Provided), Calculator.

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### **Question ONE**

(a).	Expla	(8 Marks)		
(b).	Expla	(6 Marks)		
(c).	State	(3 Marks)		
(d).	Expla			
	(i).	Mutually exclusive investment		
	(ii).	Independent investment		
	(iii).	Contingent investment		
			(6 Marks)	
Ques	tion TV	<u>NO</u>		
(a).	Describe the Planning Process.		(13 Marks)	
(b).	Describe the stages of a control.			

#### **Question THREE**

Boeng Aviations Ltd is considering a proposal to produce a new fuel efficient set engine. The accounting department estimates it will cost \$20 million to build the manufacturing plant, and \$15 million to perfect the production technology and set up the production line. The material, labour and other direct cost for the production of the engine are \$15,000 per unit (engine) and selling price will be \$40,000 per unit.

# Required;

(a). Determine the breakeven point. (5 Marks)
(b). Suppose that instead of \$15 million and \$19 million is required to perfect the production technology and set up the production line, how does this effect the break-even point?

# Marks)

- (c). If the material, labour and other direct costs for producing the engine increase from \$15,000 per unit to \$20,000 per unit, calculate its impact on the break-even point. (6 Marks)
- (d). If the company could increase its unit selling price from \$40,000 to \$50,000 what will be the effect on the break-even point? (6 Marks)

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(6

### **Question FOUR**

Sony Corporation has a capacity to produce 800,000 single deck Radios per year. At present, it is operating at 60 percent of its capacity. The annual fixed costs are £500,000 and the variable cost is £9 per Radio. The selling price is £19 per radio.

# Required;

(a).	Compute the profit at the current level of production.	(9 Marks)
(b).	Compute the profit at full capacity.	(7 Marks)

(c). Suppose that the company could spend another £200,000 or development in order to bring down unit variable cost by £2 to £7. Is such development expenditure justified at the current level of production? (7 Marks)

### **Question FIVE**

(a). NEPTUNE Co. Ltd intends to invest in two machines **A** and **B**. Each of these machines will cost this company Shs.100,000 to purchase and each has an estimated economic life of 10 years after which there will be no scrap value. The two machines are expected to generate profits as follows;

		Net returns after tax but before depreciation		
		Machine A	Machine B	
		Shs.	Shs.	
Year	1	20,000	30,000	
	2	25,000	20,000	
	3	15,000	25,000	
	4	5,000	15,000	
	5	10,000	10,000	
	6	15,000	9,000	
	7	7,500	7,000	
	8	5,000	4,000	
	9	2,500	1,500	
	10	15,000	15,000	

#### **Required;**

- (a). Using the ARR method, advise the management accordingly as to which one of the two machine to purchase and why. (19 Marks)
- (b). State FOUR advantages of using NPV to evaluate the viability of a venture. (4 Marks)