



The Open University of Sri Lanka
Faculty of Engineering Technology

Study Programmes	: Bachelor of Technology Honours in Engineering Bachelor of Software Engineering
Name of the Examination	: Final Examination
Course Code and Title	: CVM5401 Accounting for Engineers
Academic Year	: 2020/2021
Date	: 29 th January 2022
Time	: 1400-1700hrs
Duration	: 3 hours

General Instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists **Two (2) Sections** and **Seven (7) questions** in **Five (5) pages**.
3. Answer **BOTH questions in Section A** and **ANY THREE (3) Questions in Section B.**
5. Answer for each question should commence from a new page.
6. This is a Closed Book Test (CBT).
7. Answers should be in clear hand writing.
8. Do not use Red colour pen.

SECTION A**QUESTION 1**

Machines4TEA PLC is a company engaged in manufacturing and selling machinery needed to manufacture tea. The company is specializing in manufacturing Tea Rollers and has the capacity of producing sixty (60) Tea Rollers per month. However, the market demand is only fifty (50) Tea Rollers per month. The selling price of a Tea Roller is Rs. 2,500,000.

The cost data to produce one Tea Roller is:

- Raw material cost - Rs. 1,500,000
- Direct wages - Rs. 500,000

The company has overheads or indirect costs of:

- Administrative cost - Rs. 8,000,000
- Electricity & Water - Rs. 2,500,000
- Delivery & Transport - Rs. 2,000,000
- Financial cost - Rs. 500,000
- Miscellaneous expenses - Rs. 800,000

Calculate the monthly Gross Profit and the Net profit for the company. (10 marks)

QUESTION 2

Mr. Namal Perera is an Engineer by profession. In his retirement, he started his own enterprise 'QualityFabCast' on 1st January 2021, at his own premises. During the month of January, he had recorded the following transactions in his books.

- Jan 1. Started the enterprise with an investment of Rs. 500,000 in cash.
2. Opened a company account with *BOC* and deposited Rs.400,000 into the bank account.
 2. Purchased machinery needed for fabrication & casting for Rs.70,000.
 3. Bought raw material on credit from *Brown & Co.* for Rs.150,000.00
 4. Bought raw material for cash from *FAG Bearings Ltd* for Rs.30,000.00
 16. Sold the first product (machine) for cash to Mr. A P Ranasinghe for Rs.75,000.00
 20. Sold a machine on credit to *Walker Sons* for Rs.180,000.00.
 21. Paid *Brown & Co.* by cheque Rs. 120,000.00
 28. *Walker Sons* paid for their purchase by cheque, Rs.100,000.00
 28. Paid Salaries & Wages in cash for Rs.125,000.
 29. Received the water bill for the month - Rs.4,000, to be paid in two weeks' time
 30. Bought a Computer on credit from *JKOA Ltd* for Rs.80,000.00
 31. Received the Electricity bill for the month - Rs.26,000, to be paid in two weeks' time

- (a) Enter these transactions into appropriate ledger accounts and help Mr. Perera to balance and close those accounts as at 31st January 2021. Please note that although Mr. Namal is adopting Just-in-Time policy for raw material purchases, there is Rs. 12,000 of raw materials left behind by the end of the month.
- (b) Prepare the Trial Balance as at 31st January 2021.
- (c) Prepare the Profit and Loss account for the month and the balance sheet as at 31st January 2021.

(30 Marks)

SECTION B**QUESTION 3**

Innovative Steel Structures (Pvt) Ltd is involved in constructing buildings in steel, using state of the art technology. The company has decided to introduce a cost effective multi story housing unit in steel, which can be constructed within three months' time period.

The company has decided to hire you as a consultant to check the feasibility to introduce the product to the local market. You are required to look into various feasibility aspects and provide a report to the Board of Directors.

Name five important feasibility aspects that you would consider for this product and briefly describe the importance of each one of those to the Directors. (20 marks)

QUESTION 4

Source documents are the physical basis upon which business transactions are recorded. Source documents are typically retained for use as evidence when auditors later review a company's financial statements, and need to verify that transactions have, in fact, occurred.

- (a) Name four types of information that a source document consists of (08 marks)
- (b) Name six different source documents that briefly describe each of them (12 marks)

QUESTION 5

Finance Manager of HeavyConstruct (Pvt) Ltd says, "Depreciation may be defined as the permanent decrease in the value of an asset through 'Wear and Tear in use or the passage of time.'"

- (a) However, 'Wear & Tear' is only one cause for providing depreciation. Describe two other causes for depreciation. (04 marks)
- (b) Straight line method and Reducing Balance method are two popular modes of providing depreciation in practice. Briefly describe each one of them. (04 marks)
- (c) HeavyConstruct (Pvt) Ltd purchased a 'Bucket Loader' for Rs.40,000,000. The company intends to keep it for five years. At the end of the period, it is expected to have a disposable value of Rs.20,000,000. What would be the depreciation to be provided in books, if:
- Reducing balance method, with a rate of 25% is used
 - Straight line method
- (12 marks)

QUESTION 6

The Chief Financial Officer (CFO) of Flexible Engineering (Pvt) Ltd says that, the health of an organization can be evaluated by using 'Financial ratios', such as liquidity ratios, solvency ratios, activity ratios and profitability ratios.

Following summarized information on Flexible Engineering (Pvt) Ltd is given below.

Sales	Rs.900,000
Sales Returns	Rs.100,000
Direct Costs	Rs.300,000
Indirect Costs	Rs.400,000

(a) Evaluate the health of the company by calculating the Gross Profit ratio and the Net Profit ratio. (10 marks)

(b) CFO also says that it is important to maintain a high 'Stock Turnover Ratio' for good health of the company. Following information for the past financial year is also given.

Cost of Goods Sold	Rs. 400,000
Stock at the beginning of period	Rs. 150,000
Stock at the end of period	Rs. 50,000

Evaluate the health of the company by calculating the Stock Turnover Ratio.

(10 marks)

QUESTION 7**Part A**

LightBox (Pvt) Ltd, is a manufacturer of electrical accessories needed for electrical installations. The factory has four production divisions namely, fabrication, casting, painting and assembling. All these divisions make use of the procurement division, to source their raw material.

The total cost of the procurement function is Rs. 4,000,000 per annum. The breakdowns of total number of orders of 100,000 which are generated by the different divisions are indicated below:

Division	No. of orders
Fabrication	30,000
Casting	20,000
Painting	10,000
Assembling	40,000
Total	100,000

- (a) Discuss and device a methodology for the Procurement Division to allocate their costs to the respective production divisions. (10 Marks)

Part B

- (a) Explain the meaning of Net Present Value (NPV) and Return on Investment (ROI) and Payback period. (3 Marks)
- (b) Express Land Sales Ltd invested Rs. 800,000 for a land and sold it for Rs. 1,000,000, a year later. What is the Return on Investment (ROI) for the company from this sale? (4 Marks)
- (c) What is the payback period for this project? (3 Marks)