<u>Section A – ALL 20 questions are compulsory and MUST be attempted</u>

Please use the Candidate Answer Booklet to record your answers to each multiple Choice question. Each question is worth 2 marks.

1- Which one of the following is not a way of maximizing return over a product life cycle?

- **A.** Design costs out of the product
- **B.** Minimize the time to market
- **C.** Maximize the break even time
- **D.** Maximize the length of the life span

2- The following statements have been made about Zero Based budgeting.

- **(1)** A zero budget is a budget that remains unchanged throughout the budget period regardless of any change in the actual level of activity.
- **(2)** Zero-based budgeting is used to compare the incremental cost and related benefits of activities.

Which of the above statements is/are true?

- **A.** 1 only
- **B.** 2 only
- **C.** Neither 1 nor 2
- **D.** Both 1 and 2

3- The first unit of an entirely new product took 160 labour hours to make and the labour cost was SDG3,200. Four units have now been produced and it is thought that a 75% learning curve applies to the work.

What will be the expected labour cost of the fifth unit to be produced?

- **A.** SDG1,004
- **B.** SDG1,231
- **C.** SDG1,641
- **D.** **SDG1,800**

4- Which one of the following is generally regarded as a benefit of using spreadsheets for budgeting?

- **A.** Audit trail
- **B.** Complexity of modeling
- **C.** Greater participation in budgeting process
- **D.** Use of sensitivity analysis

5- In which of the following production environments is the use of standard costs most appropriate?

- **A.** For mass produced products
- **B.** In a JIT production environment
- **C.** In a target costing environment
- **D.** In a TQM production environment

6- **The following information relates to an investment center, which is a separate production division in a large company.**

	SDG
Net current assets	125,000
Non-current assets	400,000
Profit before depreciation	85,000
Depreciation	15,000

What is the most appropriate measure of the center's Return on Investment (ROI)?

A. 3.3%
B. 13.3%
C. 16.7%
D. 20.8%

7- **Which of the following statements about activity-based costing is incorrect?**

A. Implementation of ABC is unlikely to be cost-effective when variable production costs are a low proportion of total production costs.
B. In a system of ABC, for costs that vary with production levels, the most suitable cost driver is likely to be direct labour hours or machine hours.
C. Activity based costs are not the same as relevant costs for the purpose of short-run decision making.
D. Activity based costing is a form of absorption costing.

8- **A company manufacturers multiple products and uses target costing. It has been noted that Product X currently has a target cost gap and the company wishes to close this gap. Which of the following may be used to close the target cost gap for product X?**

A. Use overtime for production
B. Substitute current raw materials with cheaper versions
C. Raise the selling price of X
D. Negotiate cheaper rent for the Company's offices

9- **Which of the following environmental costs is an external environmental cost?**

A. License fees
B. Payments of fines and charges
C. Costs of monitoring emissions
D. Traffic congestion

10- **A company regularly uses material X and currently has in inventory 500kgs for which it paid SDG1,500 two weeks ago. If this were to be sold as raw material, it could be sold today for SDG2.00 per kg. You are aware that the material can be bought on the open market for SDG3.25 per kg, but it must be purchased in quantities of 1,000 kgs. What is the relevant cost of 600kg needed to be used in a job for a customer?**

A. SDG1,325
B. SDG1,825
C. SDG1,950
D. SDG3,250

11- **A budget that is continuously updated by adding a further accounting period (a month or a quarter) when the earlier accounting period has expired is known as a:**
  - **A.** Zero base budget
  - **B.** Rolling budget
  - **C.** Periodic budget
  - **D.** Flexible budget

12- **Which type of standard cost is most useful for monitoring trends in performance over time?**
  - **A.** Attainable standard
  - **B.** Basic standard
  - **C.** Current standard
  - **D.** Ideal standard

13- **Which of the following would NOT explain a favorable direct materials usage variance?**
  - **A.** Using a higher quality of materials than that specified in the standard.
  - **B.** A reduction in materials wastage rates.
  - **C.** An increase in suppliers' quality control checks.
  - **D.** Achieving a lower output volume than budgeted.

14- **Which of the following describes a 'basic standard' within the context of budgeting?**
  - **A.** A standard which is kept unchanged over a period of time
  - **B.** A standard which is based on current price levels
  - **C.** A standard set at an ideal level, which makes no allowance for normal losses, waste and machine downtime
  - **D.** A standard which ignores the effect of workers experience.

15- **A company can choose from four mutually exclusive investment projects. The return on the project will depend on market conditions.**

The table below details the returns for each possible outcome:

	A	**B**	**C**	**D**
Poor	SDG 400,000	SDG 700,000	SDG 450,000	SDG 360,000
Average	SDG 470,000	SDG 550,000	SDG 500,000	SDG 400,000
Good	SDG 600,000	SDG 300,000	SDG 800,000	SDG 550,000

If the company applies the Maximin rule it will invest in:
  - **A.** Project A
  - **B.** Project B
  - **C.** Project C
  - **D.** Project D

16- **Xino Company has a breakeven point when sales are SDG 160,000 and variable costs at that level of sales are SDG100,000. How much would contribution margin increase or decrease, if variable costs dropped by SDG 20,000?**
  - **A.** 37.5%
  - **B.** 60%
  - **C.** 12.5%
  - **D.** 26%

17- Opportunity cost is the best example of:

- **A.** Sunk Cost
- **B.** Standard Cost
- **C.** Relevant Cost
- **D.** Irrelevant Cost

18- Fixed cost per unit usually decreases when:

- **A.** Production volume increases.
- **B.** Production volume decreases.
- **C.** Variable cost per unit decreases.
- **D.** Variable cost per unit increases.

19- A company manufactures a single product. The total cost of making 4,000 units is SDG 20,000 and the total cost of making 20,000 units is SDG 40,000. Within this range of activity the total fixed costs remain unchanged.

What is the variable cost per unit of the product?

- **A.** SDG0.80
- **B.** SDG1.20
- **C.** SDG1.25
- **D.** SDG2.00

20- A company manufactures a single product that it sells for SDG 20 per unit, the unit cost of material is SDG 5, total operating expenses are SDG80,000 per month, each unit requires 2 machine hour and machine hours are limited to 20,000 hour per month

What is the throughput accounting ratio for this product?

- **A.** 2.50
- **B.** 1.25
- **C.** 5.00
- **D.** 1.875

Section B – ALL 3 questions are compulsory and MUST be attempted

Question (1)

Oasis co, manufactures and sells chemical products, the company received an urgent job order(Job#1551) from one of its high profile customers, the order must be completed as soon as possible and it requires 100 unit of material Xich which is a toxic & rarely used material, currently the company have 75 unit of Material Xich in its store purchased at SDG 300 per unit, the company have no use for this material and due to a legal restrictions cannot sell this quantity, just one week before the order date, the company's Health & Safety team identified this quantity as unsafe item and advised the store manager to destroy it, the associated(destroy) cost will be SDG 2,000, currently Oasis can purchase this material at SDG 310 per unit.
In addition to materials, job # 1551 also needs 200 Engineers' working hour & 300 hours of Technicians' working hours; the normal charge rate is SDG 20 per hour for Engineers and SDG10 per hours for Technicians, however; the engineers are currently in a mission to complete another job that earns SDG 30 per hour and they need to be shifted to Job #1551.
The packing and quality inspection cost for Job # 1551 is estimated to SDG 5,250 and the customer tendered a price of SDG 25,000.
It worth mentioning that according to Oasis policy an urgent job cannot be accepted unless it generates a markup (Profit) of 25%.

Required:

(a) Prepare a relevant cost statement for Job #1551. **(8 marks)**

(b) Calculate the expect profit from Job # 1551 and advice the Oasis company to Accept or reject it. **(5 marks)**

(c) Assume that the 75 unit of Xich material are not exist in the Oasis company store:

   I. Calculate the total relevant cost for Job # 1551 **(4 marks)**

   II. Explain the effect of change in material cost (I- above) on the company decision regarding acceptance of Job #1551

(3 marks)

Question (2)

Aburi, is a small company is engaged in the production of plastic tools for the garden. Subtotals on the spreadsheet of budgeted overheads for a year reveal the following.

	Moulding department	*Finishing department*	*General factory overhead*
Variable overhead SDG'000	1,600	500	1,050
Fixed overhead SDG'000	2,500	850	1,750
Budgeted activity:			
Machine hours (000)	800	600	
Practical capacity:			
Machine hours (000)	1,200	800	

For the purposes of reallocation of general factory overhead it is agreed that the variable overheads accrue in line with the machine hours worked in each department. General factory fixed overhead is to be reallocated on the basis of the practical machine hour capacity of the two departments.

It has been a longstanding company practice to establish selling prices by applying a mark-up on full manufacturing cost of between 25% and 35%.

A possible price is sought for one new product which is in a final development stage. The total market for this product is estimated at 200,000 units per annum. Market research indicates that the company could expect to obtain and hold about 10% of the market. It is hoped the product will offer some improvement over competitors' products, which are currently marketed at between SDG90 and SDG100 each.

The product development departments have determined that the direct material content is SDG 9 per unit. Each unit of the product will take two labour hours (four machine hours) in the moulding department and three labour hours (three machine hours) in finishing. Hourly labour rates are SDG5.00 and SDG5.50 respectively.

Management estimate that the annual fixed costs which would be specifically incurred in relation to the product are supervision SDG20,000, depreciation of a recently acquired machine SDG120,000 and advertising SDG27,000. It may be assumed that these costs are included in the budget given above. Given the state of development of this new product, management do not consider it necessary to make revisions to the budgeted activity levels given above for any possible extra machine hours involved in its manufacture.

<u>Required</u>

(a) Prepare full cost and marginal cost information which may help with the pricing decision. **(10 marks)**

(b) Comment on the cost information and suggest a price range which should be considered. **(5 marks)**

(c) Briefly explain the role of costs in pricing. **(5 marks)**

(Total = 20 marks)

Question (3)

Trasco limited produces & sells a single product “Tepseen”, a laboratory analysis liquid with a total local market size of 1,000,000 unit p. a. out of which Trasco owns 25% market share. At the start of the year 2017, the company’s sales budget was equivalent to its market share at a selling price of SDG 40/unit & Budgeted contribution of SDG 10/unit, while the fixed overhead budget was SDG100,000 per annum.

As a part of its efforts to nationalize the medical industry, the government imposed new regulations resulting in a limitation of imports from several medical products among which the Tepseen and accordingly some Trasco competitors found themselves out of the market, the National Medical Supplies Fund announced that it expects 10% supply gap because of demand increase and the cut of imports, and invited the local manufacturers(like Trasco) to increase their productivity to cover this gap , considering this announcement, Trasco revised its budgeted sales volume by additional 10% but change made to budgeted selling price, contribution% or Fixed overhead.

During the year under review, the company achieved a turnover of SDG 12,150,000 with a sales volume of 270,000unit, the gross contribution was SDG 2,700,000 and a fixed overhead was SDG105,000.

At the annual performance review meeting; the Sales director, who is entitled for 2 months’ salary if the actual revenue exceeds the budget by10% or more,; initiated the meeting saying “ We outperformed out revised budgeted turnover by 10 %, for me; this is an impressive performance as this is the most precise performance indicator, any other performance indicator that contradicts with this fact is irrelevant ” , the Finance Director replied “ I think you overlooked the performance analysis, this revenue growth was achieved at the expense of our sales volume and gross Profit margin, there is a significant deterioration worth a review here, although some of our competitors exited the market, we failed to protect our market share as well our gross profit margin%, let’s see the detailed figures then we can judge”, this matter dominated the board meeting & accordingly the Board decided to postpone the sales Director’s Performance incentive, the board also asked the Finance Director to prepare an advanced analysis for the sales and profit variances before to decide on the Sales director’s performance incentive.

Required:

(a) Prepare a comparison statement to show the original and revised budget for Trasco for the year 2017. **(4 marks)**

(b) Prepare an Operating statement to reconcile the budgeted and the actual profit for the year 2017; your statement should include both sales volume planning and operating variances. **(10 marks)**

(c) Discuss the appropriateness and the behavioral implications of using the actual revenue increase target (at least 10% over the budgeted revenue as described above), as a single measure to appraise the sales director‘s performance and decide on his compensation of 2 month salary. **(6 marks)**