



# **TECHNICAL UNIVERSITY OF MOMBASA**

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**FACULTY OF APPLIED AND HEALTH SCIENCES**

**DEPARTMENT OF MEDICAL SCIENCES**

**UNIVERSITY EXAMINATION FOR:**

**DIPLOMA IN PHARMACEUTICAL TECHNOLOGY**

**APM 2311: DRUG SUPPLY MANAGEMENT IV**

**SUPPLEMENTARY/ SPECIAL EXAMINATION**

**SERIES: SEPTEMBER 2018**

**TIME: 2 HOURS**

**DATE:** Pick Date Sep 2018

## **Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of three Section(s). Attempt All questions in section A and B and any two questions in section C.

**Circle the correct answer in section A.**

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## **SECTION A (40 Marks)**

1. The cost incurred each time the item is transferred from one level of the supply system to another is referred to as;
  - a) Material cost
  - b) Transport cost
  - c) Hidden cost
  - d) Obsolescence cost
  
2. With regard to drug distribution, which of the following is not a transport cost?
  - a) Airfreight
  - b) Demurrage
  - c) Port clearing

- d) Expiries
3. A document used to verify undervalued invoice is called:-
- a) A voucher
  - b) Debit note
  - c) Delivery note
  - d) Credit note
4. Which of the following tools is not used for limiting the drug procurement list as a cost effective approach to health service delivery:-
- a) VEN analysis
  - b) Therapeutic category analysis
  - c) ABC analysis
  - d) XYZ analysis
5. The prerequisite for success with any of the approaches used in pharmaceutical supply system assessment include the following, except :-
- a) Government commitment to the process
  - b) A qualified assessment team
  - c) A biased approach
  - d) A clear definition of objectives and procedures
6. Which of the following has a positive effect on controlling demand for prescription medicines?
- a) Increase the cost of medicines
  - b) Increase the waiting time
  - c) Decrease quality of services
  - d) Increase targeted patient education
7. Pharmaceutical products are recognized as different from ordinary items of commerce and require special handling by trained professionals. Which of the following aspects is least granted to the legal authority to regulate
- a) Availability
  - b) Marketing

- c) Prescribing
  - d) Monitoring
8. Vital drugs with reference to VEN in drug supply systems refers to drugs that :-
- a) Are potentially life - saving
  - b) Have significant withdrawal side effects
  - c) Are crucial to providing basic health services
  - d) Have a comparatively high cost of marginal therapeutic advantage.
9. One of the statements below is false about management. Which one?
- a) It is a resource
  - b) It is a profession and a career
  - c) It is an art and a science<sup>4</sup>
  - d) It involves achieving results individually
10. A stock movement review process in which items are categorized by the volume of consumption during a specific period of time is described as:-
- a) VEN analysis
  - b) Vertical consumption analysis
  - c) Pareto analysis
  - d) ABC analysis
11. All the following factors may promote theft of drugs in public health care facilities, except:-
- a) High demand for drugs in private sector
  - b) Weak inventory control systems
  - c) Limit access to stores to relevant staff only
  - d) Poor physical security in stores.
12. The total variable costs for drug acquisition has all the following components, except:-
- a) Acquisition prices
  - b) Inventory Holding costs
  - c) Selling costs
  - d) Shortage costs

13. The following factors affect choice of safety stock, except:-
- a) Uncertainty of demand
  - b) Degree of insurance of an item
  - c) Uncertainty in lead time
  - d) Size of the store
14. The sum of stock on hand and stock on order, subtract any stock back-order to clients will give:-
- a) Maximum stock level
  - b) Service level
  - c) Stock position
  - d) Safety stock
15. Benefits of a successful inventory control includes the following except:-
- a) Patients receive drugs promptly
  - b) Saves administrative cost and transport time
  - c) Reduces cost of commodity
  - d) Ensures accountability for suppliers
16. Which of the following is not an educational strategy to improve drug use?
- a) Prescribing restrictions
  - b) Quality training for prescribes
  - c) Availability of printed materials to enrich and update the prescribers
  - d) Approaches based on face-to-face contact with prescribers, patients and opinion leaders.
17. Which of the following statements does not capture the purpose of a pharmaceutical system assessment?
- a) To diagnose problems
  - b) Plan major intervention projects
  - c) Monitor programs and compare the performance of a system with another
  - d) Supply of commodities
18. Which of the following forms the last step in the drug distribution cycle?
- a) Dispensing to the patient
  - b) Requisition of supplies
  - c) Reporting consumption
  - d) Receipt and inspection

19. The following costs are associated with stock shortages except-

- a) The cost of an emergency purchase
- b) The loss of revenue if a client goes elsewhere to purchase the item
- c) Increased morbidity and mortality due to shortages
- d) Average percentage of inventory variation on stock records

20. Which of the statements below is not true about "dependent demand systems"?

- a) Manage inventory requirements for finished products
- b) Manage inventory requirement for raw materials
- c) Also known as material requirement planning
- d) Depends on the production schedule

## **SECTION B (40 Marks)**

1. Explain the concept of community based health care. **(4 marks)**
2. State advantage of glass as a packing material **(4 marks)**
3. State advantage of glass as a packing material **(4 marks)**
4. Explain the meaning of each of the following terms relating to drug distribution.
  - a) Order picking **(2 marks)**
  - b) Cold chain **(2 marks)**
5. Distinguish between pull and push systems **(4 marks)**

## **SECTION C (20 Marks)**

1. What do you understand by the term, **inventory control?** **(8 marks)**
2. (a) Explain why managers and policymakers collect data about drug utilization **(8 marks)**
  - (b) Explain how health systems and prescribers can contribute to irrational use of drugs. **(12 Marks)**
3. a Define the term tender **(2 marks)**
  - b. Outline the standard steps in the tender cycle **(8 marks)**
4. What would you consider to be the most important Points to remember while purchasing? **(8 marks)**
5. Write about combination techniques on a large scale and small scale practices **(8 marks)**