



# Technical University of Mombasa

*Faculty of Applied and Health Sciences*

DEPARTMENT OF **MEDICAL SCIENCES**  
DIPLOMA IN PHARMACEUTICAL TECHNOLOGY  
(DPT 11M)

## **APM 2210 : DRUG SUPPLY & MANAGEMENT II**

**SPECIAL/SUPPLEMENTARY:** EXAMINATIONS

**SERIES:** February 2013

**TIME:** 2 HOURS

### **INSTRUCTIONS:**

You should have the following for this examination

- *Answer booklet*

This paper consists of **THREE sections A, B and C.**

Answer all questions in section **A** and **B** and choose **THREE** out of **FIVE** questions in section **C.**

This paper consists of **6 PRINTED** pages

**SECTION A (40MARKS)**

1. Which of the following is not a function of the drug supply management cycle?
  - a) Use
  - b) Surveillance
  - c) Selection
  - d) Distribution
  
2. Which of the following is the core of drug supply system?
  - a) Selection
  - b) Planning
  - c) Manufacturing
  - d) Inventory control
  
3. Implications of stock outs include the following except:-
  - a) Loss of that particular sale
  - b) Customer retention compromised
  - c) Loss of customer gradient
  - d) Cheaper emergency purchases
  
4. All the following are different methods of forecasting future drug consumption. Except:-
  - a) Projective method
  - b) Real-time method
  - c) Causal method
  - d) Judgmental method
  
5. An interbank document issued stating that a certain sum of money is available for the seller to claim as soon as the consignment is shipped is called:-
  - a) Letter of credit
  - b) Back guarantee
  - c) Bank bill
  - d) Invoice
  
6. All the following are strategies to promote rational use of drugs, except:-
  - a) Improvement of consultation process
  - b) Implement strategies for good inventory management systems
  - c) Improve prescribing habits
  - d) Promotes education on patient compliance
  
7. Common causes of poor compliance to prescribed medicines by patients include all the following except:-
  - a) Poor interpretation of the directions

- b) Improper labeling
  - c) Inadequate instructions
  - d) Selection of wrong drug for patient's illness
8. Drugs that are kept in a second room with a red light or bell activated system when the door is unlocked are:-
- a) Narcotics
  - b) Part one poisons
  - c) Expensive antibiotics
  - d) Antiretroviral drugs
9. Which category of the supplies below may not require cold storage?
- a) Vaccines
  - b) Sera
  - c) Antibiotics
  - d) Insulin products
10. Good storage practices aim protecting the commodities against the following, expect:-
- a) Unfavorable temperatures
  - b) Excessive light acid dust
  - c) Poorly trained staff
  - d) Wastage due to expiry
11. Which of the following is the last step during disposal of expired drugs?
- a) Prepare a written record of all expired stock
  - b) Value each item at its selling price
  - c) Inventory control clerks adjusts stock record
  - d) Race stock in designated are awaiting authority for disposal
12. Which of the following factors is not an aim or objective of investigating appropriate drug use in health care facilities?
- a) to reduce current patterns of drug misuse
  - b) To correct specific drug use problems
  - c) To apply skills learned during training
  - d) To monitor drug use over time
13. Patient advice during a dispensing process should emphasize on all the following except:-
- a) When to take the medicine
  - b) Where to take the medicine
  - c) How to take the medicine
  - d) How to store the medicine
14. Which of the following is not used as an identification device by government institutions to stop theft of drugs?
- a) Imprint on all containers with a unique seal

- b) Registers batch numbers with the regulatory authority
  - c) Purchase drugs from a similar source with private distribution
  - d) Monitor usage and conduct periodic audit procedures
15. 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
16. 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 system
  - c) Limit access to stores to relevant staff only
  - d) Poor physical security in stores
17. The interval between receipt of goods at a warehouse and payment to the supplier is called:-
- a) Lead time
  - b) Payment time
  - c) Pipeline time
  - d) Purchase period
18. Systemically developed statement that assist prescribers in deciding on appropriate treatment for specific clinical problems are best described as:-
- a) Essential drugs list
  - b) Formulary manual
  - c) Treatment guidelines
  - d) Formulary lists
19. All the following are basic functions of management support system in drug supply except:-
- a) Organization
  - b) Procurement
  - c) Financing
  - d) Human resource
20. The types of data collected relating to quantities of products dispensed to clients may be termed:-
- a) Consumption data
  - b) Issue data
  - c) Transaction data
  - d) Inventory records
21. Security deposits in the form of negotiable fiscal documents that may be required at the time a contract is awarded and fulfill the contract obligation is termed:
- a) Performance bond
  - b) Contract guarantee
  - c) Bid bonds
  - d) Performance contract
22. The target stock level which is needed to satisfy demand until the next order after one is received may be describe as:-

- a) Re-order level
  - b) Maximum stock level
  - c) Stock position
  - d) Safety stock
23. A “schedule of requirements” may also be described as:-
- a) Performance bond
  - b) Bid bond
  - c) Tender list
  - d) Adjudication bill
24. Which of the following statements is not correct about storage?
- a) Store each type of commodity in the same area
  - b) Store fast moving commodities in an easily accessible place
  - c) Store emergency medicines and costly items in a separate lockable place
  - d) Remove all unusable and date expired commodities and keep them on a separate shelf
25. Which of the following item has methods of disease diagnosis and treatment alternatives?
- a) British National Formulary
  - b) Standard treatment guidelines
  - c) Formulary list
  - d) Essential drugs list
26. Which of the procurement method is called “ local shopping”?
- a) Competitive Negotiation
  - b) Restrictive tender
  - c) Open tender
  - d) Direct procurement
27. All the following are the most common inventory control methods in drug supply except:-
- a) Annual purchasing
  - b) Periodic purchasing
  - c) Periodic purchasing
  - d) Perpetual purchasing
28. The security risk that should be prevented in drug inventory system include all the following except:-
- a) Theft
  - b) Bribery
  - c) Fraud
  - d) Fire
29. The term “rational drug use” is used in the biomedical context to include the following criteria, except
- a) Correct drug use
  - b) Appropriate indication
  - c) Use of proprietary names
  - d) Patient adherence to treatment

30. The following are all possible funding sources for drugs in the public sector except:-
- The waiver systems
  - Government revenues
  - Direct payment by patients
  - Health Insurance
31. Which of the following forms the last step in drug distribution n cycle?
- Dispensing to the patient
  - Reposition of supplies
  - Reporting consumption
  - Receipt and Inspection

### SECTION B (Answer ALL questions)

32. Explain the following terms as applied in the strategies for encouraging appropriate use of drugs:-
- Public centered approach **(2marks)**
  - Patient centered approach **(2marks)**
33. The demand for drugs will almost always exceed the available drug budget allocation. This leaves health managers with some options. Enumerate any four. **(4marks)**
34. Explain any FOUR benefits of holding stock. **(4marks)**
35. Community participation can support and enhance improvements in drug management and use in a number of ways. **(4marks)**
36. List any four interventions that are considered cost effective in attempting to remedy the problem of irrational drug use. **(4marks)**
37. Explain the meaning of each of the following terms relating to drug distribution :-
- Order picking
  - Cold chain **(4marks)**
38. Differentiate between “Dependent demand system “ and “independent demand system in relation to system design for inventory management . **(4marks)**
39. Outline two disadvantages of annual stock taking **(4marks)**
40. State any FOUR advantages of course of therapy pre-packing. **(4marks)**

### SECTION C

41. Discuss good warehouse keeping with reference to medical stores management under the following:-
- a) Cleaning and Rest control **(4marks)**
  - b) Inspection **(4marks)**
  - c) Disposal of expired and damaged stock **(4marks)**
  - d) Fire precautions; **(4marks)**
  - e) Security **(4marks)**
42. (a) Outline the reasons for holding stocks **(6marks)**  
 (b) Explain the disadvantages with holding stock **(8marks)**  
 (c) Outline the THREE key components at inventory management **(6marks)**
43. Describe in detail the drug distribution cycle. **(20marks)**
44. (a) Define the term “tender” **(2marks)**  
 (b) Outline the steps in the tendering process. **(5marks)**  
 (c) Explain the following terms used in Tendering:-  
 (i) Restricted tender with pre-qualifications **(5marks)**  
 (ii) Open tender with post-qualification **(5marks)**
45. (a) Discuss the basic issues which must be carefully considered when an inventory management system is designed or revitalized. **(8marks)**  
 being
- (b) Name and describe the FOUR commonly used manual stock records in the public supply system. **(12marks)**