

# TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

**DEPARTMENT OF MEDICAL SCIENCES**

**DIPLOMA IN PHARMACEUTICAL TECHNOLOGY**

**(DPT 17S) APM 2311: DRUG SUPPLY MANAGEMENT III**

**SEMESTER: EXAMINATIONS**

**SERIES: AUGUST 2019**

**TIME: 3 HOURS**

**ORDINARY EXAMINATION**

## **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.

**SECTION A (40 MARKS)**

1. One of the following statements correctly defines the term regulations
  - a) Refers to the tools that governments use to ensure that private sector actions are consistent with the broader welfare of society.
  - b) Refers to the tools that governments use to ensure that public sector actions are consistent with the broader welfare of society.
  - c) Refers to the tools that governments use to ensure that health sector actions are consistent with the broader welfare of society.
  - d) Refers to the tools that governments use to ensure that licensing in public sector actions is consistent with the broader welfare of society.

2. Technical efficiency refers to one of the following
  - a) Involves the broader concept of undertaking the best combination of activities to achieve the greatest net benefit
  - b) Involves determining the right quantities of different inputs, and the least expensive combination of inputs, to achieve a given output.
  - c) Involves the broader concept of undertaking the best combination of activities to achieve the least net benefit
  - d) Involves determining the right quantities of different inputs, and the most expensive combination of inputs, to achieve a given output.
  
3. A National Drug Policy is best defined as?
  - a) It is a document specifying the goals set by the government for the paramedical sector, their relative importance and the main strategies for attaining them.
  - b) It is a document specifying the goals set by the government for the laboratory sector, their relative importance and the main strategies for attaining them.
  - c) It is a document specifying the goals set by the government for the nursing sector, their relative importance and the main strategies for attaining them.
  - d) It is a document specifying the goals set by the government for the pharmaceutical sector, their relative importance and the main strategies for attaining them.
  
4. One of the following is not a main component of a National Drug Policy
  - a) Legislation and regulations
  - b) Choice of drugs
  - c) Supply and financing policies
  - d) Irrational drug use.
  
5. One of the following is not an alternative for supplying drugs to government and non-governmental organizations.
  - a) Autonomous supply agencies
  - b) indirect delivery system
  - c) Central medical stores
  - d) Prime vendor system.
  
6. In drug registration and licensing the following approved criteria are taken into consideration, except?
  - a) Inefficacy
  - b) Safety
  - c) Quality
  - d) Truth.

7. One type of the following law is not relevant to drug management,
  - a) Commercial law
  - b) Tort law
  - c) Criminal law
  - d) Hindu commercial law.
8. Commercial law includes all of the following apart from,
  - a) Contract law
  - b) labor law
  - c) Patent law
  - d) Trademark law
9. Definition of “management” includes all statements below, except?
  - a) Achieving results alone
  - b) Using resources efficiently
  - c) Providing direction
  - d) Coordinating, leading, leading and motivating
10. Management tasks for a manager on a daily basis includes all the following apart from
  - a) Crisis management
  - b) Routine administration
  - c) Long term program development
  - d) Monitoring and evaluation
11. Management cycle has three distinct basic functions except
  - a) Monitoring and evaluation
  - b) Planning
  - c) Implementation
  - d) Drug management Information systems
12. Definition of evaluation in drug supply management is best associated with one of the following statements
  - a) The ongoing process of reviewing the degree to which activities completed and objectives are being met.
  - b) A periodic assessment of progress toward achieving long term objectives and goals.
  - c) The ongoing process of reviewing the degree to which activities are not completed and objectives are not being met
  - d) A periodic assessment of progress toward achieving short term objectives and goals

13. Definition of monitoring in drug supply management is best associated with one of the following statements
- The ongoing process of reviewing the degree to which activities completed and objectives are being met.
  - A periodic assessment of progress toward achieving long term objectives and goals.
  - The ongoing process of reviewing the degree to which activities are not completed and objectives are not being met
  - A periodic assessment of progress toward achieving short term objectives and goals
14. Monitoring methods in drug supply management typically contain a combination of all of the following apart from which one?
- Supervisory visits.
  - Routine reporting.
  - Sentinel sites
  - Non-Special studies
15. Community participation in organization and management involves the following except which one?
- Contributing
  - Controlling
  - Consulting
  - Evaluating
16. Members of a pharmacy and therapeutic committee include all of the following except?
- Medical staff
  - Pharmacist
  - Chief nurse
  - Laboratory technician
17. Functions of a pharmacy and therapeutic committee has the following except one,. Which one?
- Drug selection and requirements planning
  - Prescribing practices and drug information
  - Planning and implementation of programs
  - Dispensing and drug administration
18. The following factors can affect national drug supply systems except
- Theft.
  - Shortages
  - Bribery
  - Fraud.

19. One of the following mechanisms cannot be used for financing essential drugs in health care facilities
- Health insurance
  - Donor financing
  - Revolving funds
  - Non-development loans
20. Financial analysis tools in organization management include all of the following except?
- Therapeutic category analysis
  - ABC Value analysis
  - VED
  - VEN
21. ABC Classification analysis of inventory divides inventory depending on?
- The value of annual consumption
  - Their purchasing priorities
  - Availabilities in the market
  - Based on criticality of costs of item.
22. Lead time analysis in financial and expenditure analysis is based on the following statements except?
- Tracking procurement lead times
  - Determining the points at which lead time can be reduced
  - Adjusting safety stock appropriately
  - Based on utilization and availability.
23. A revolving drug fund is best defined as?
- A drug sales program in which revenues from drug fees are used to replenish drug supplies.
  - A drug sales program in which revenues from drug fees are used to insure drug supplies
  - A drug procurement program in which revenues from drug fees are used to replenish drug supplies
  - A drug sales program in which revenues from drug fees are used to pay salaries.
24. One of the following does not constitute total variable costs
- Drug insurance cost
  - Inventory holding costs
  - Ordering costs
  - Shortage costs

25. Hidden costs could be best described as
- Those costs that occur due to superior supplier performance and they are visible in the invoice price.
  - Those costs that occur due to poor supplier performance and they are obvious in the invoice price.
  - They are costs that include insurance, acquisition and ordering.
  - Those costs that occur due to poor supplier performance and they are not obvious in the invoice price.
26. Financial support for healthcare services and pharmaceuticals is provided by all of the following sectors apart from?
- Bilateral agencies
  - United nations agencies
  - NGO's
  - Municipal councils.
27. Modern concepts of management includes one of the following factors
- Total quality management (TQM)
  - Non-participatory management
  - Management by wondering outside (MBWO)
  - Managing for performance through use of management by goals
28. The management process, which is at the hub of the drug management cycle, consists essentially of three basic functions apart from which one?
- Financial management
  - Planning
  - Implementation
  - Monitoring and evaluation
29. In health programs, there are three main levels of planning which differ in purpose and time frame and level of detail. Which one is not one of them;-
- Work planning
  - Strategic planning
  - Program planning
  - Implementation planning.
30. Evaluation in project and programme implementation in organization management refers to;-
- Reviewing on a continuous basis, the degree to which program activities are completed and targets are being met.
  - Analyzing progress towards meeting established objectives and goals.
  - Analyzing progress towards not meeting established objectives and goals
  - Determining whether activities are being carried out as planned.

31. Sentinel reporting differs from routine reporting as a method of monitoring of projects in health systems. One of the differences below is not true, which one?
- a) Amount of information collected
  - b) Frequency and promptness of report submission
  - c) Level of accuracy demanded
  - d) Sample size is wide spread in a country for greater accuracy.
32. Community participation in organization management involves the following except?
- a) Management of facility – based health services
  - b) Cost sharing for pharmaceuticals
  - c) Promotion of non- preventive health care
  - d) Promotion of appropriate drug use.
33. Appropriate drug use in the hospital setting is a multidisciplinary responsibility that includes all of the following, except?
- a) Prescribing by pharmacists
  - b) Prescribing by physicians
  - c) Medication administration by nurses or other health care professionals
  - d) Preparation and dispensing by the pharmacy department
34. One the following is not a member of the pharmacy and therapeutic committee
- a) Quality assurance coordinator
  - b) Medical department
  - c) Pharmacy
  - d) Chief laboratory technician
35. The four components of drug use include?
- a) Prescribing
  - b) Preparation and distribution
  - c) Medication error administration
  - d) Drug side-effect monitoring on patients and making in-appropriate changes to therapy.
36. Critical functions of a Hospital Pharmacy and Therapeutic Committee in Kenya include Drug selection and requirement planning. One function below is FALSE.
- a) Maintain the hospital formulary.
  - b) Receive and review management indicators
  - c) Formulate a perpetual list of drug requirements.
  - d) Coordinate drug supply for special programs

37. Hospital drug formulary management is the cornerstone of drug management in the hospital. One of the activities below is FALSE
- a) The formulary list should be limited to conserve resources
  - b) Eliminate generic duplication
  - c) Select drugs for the formulary based on diseases and conditions treated at the facility
  - d) Include second line alternatives to drugs of choice as needed, but maximize therapeutic duplication
38. Some factors in the hospital facilities promote theft of drugs apart from which one?
- a) Shortage of essential drugs or high demand for drugs in the private sector
  - b) Poor physical security in stores
  - c) Weak inventory records
  - d) Unlimited access to stores by authorized people
39. Drug financing decisions are mostly concerned with?
- a) Allocative efficiency
  - b) Technical efficiency
  - c) Managerial acumen
  - d) Donor funds availability
40. Job description is an important element in human resource management. It is a helpful tool for managers for the following reasons apart from?
- a) Determining job qualifications
  - b) Orienting new employees
  - c) Establishing performance expectations and supervising staff.
  - d) Setting levels of retirement emoluments.



## SECTION B 40 MARKS

### Answer all questions

41. Briefly, describe the differences between monitoring and evaluation in project and program management (4marks)
42. What are the functions of community participation in organization and management in health care systems? 4 marks)
43. What is a Pharmacy and Therapeutic Committee? (4 marks)
44. Who are the members of a Pharmacy and Therapeutic Committee? (4marks)
45. Describe some factors that promote theft of drugs in Hospitals (4marks)
46. What is therapeutic category analysis? (4 marks)
47. What are the components of total variable costs? (4 marks)
48. What is the role of drug management information system? (4 marks)
49. Mention **four** specific objectives of a National Drug Policy? ( 4marks)
50. Mention some **four** important functions of Supply chain management (SCM) in drug management (4 marks)

**SECTION C (40 Marks)**

**Answer** any TWO questions. (*Each question is 20 marks*).

51. Discuss some of the common security breaches in acquisition of healthcare commodities.
52. Discuss the application of ABC analysis in analyzing and controlling drug expenditures
53. Briefly, discuss the role of a revolving fund in the health care sector in Kenya.
54. Briefly discuss some important applications of computers in drug management.
55. Describe the management cycle as applied in drug management system
56. Explain the core activities of the national drug policy (NDP)
57. Give a general overview of the importance of the drug management information systems (DMIS) in drug management
  - i. Mention the three methods of monitoring in drug organization and management
58. Inventory management is a key issue in drug organization and management. Mention at least **five** basic issues that must be considered for an effective and efficient inventory management system.