**EXAMPLE OF TICKET FOR EXAM**

**Kazan State Medical University**

**of the Ministry of Health of the Russian Federation**

**Institute of Pharmacy**

**Exam on Management and economics of pharmacy**

**Ticket number 2**

1. Main functions of pharmacies. Normative document. (20 points)
2. Retail turnover planning for existing pharmacy (20 points)
3. Reasons for carrying out inventory in a pharmacy (20 points)
4. Fundamentals of pharmaceutical management. (20  points)
5. Retail sales of a pharmacy for last 3 yeas: 60 thousand rubles, 70 thousand rubles, 78 thousand rubles, expected implementation for current year 91,5 thousand rubles and quarterly: 25 thousand rubles., 22.8 thousand rubles, 19.1 thousand rubles, 24.6 thousand rubles. Develop a plan of retail turnover for a year and by quarters. (20 points)

**Standard answer**

**1 question. Main functions of pharmacies. Normative document.**

In accordance with Order of Ministry of Health of the Russian Federation No. 780n of 31.07.2020 "On approval of types of pharmaceutical organizations"

there are following functions of pharmacies

1. health protection, including first aid, information about medicines among health professionals, pharmaceutical care
2. trading, including purchase of medicines, acceptance of medicines, placement and storage of medicines in accordance with their physico-chemical properties, sale of medicines to population and hospitals
3. production, including individual production of medicines, serial production of medicines, quality control of medicines

**2 question. Retail turnover planning for existing pharmacy.**

Retail turnover is number of goods sold to population in monetary terms.

Pharmacy's retail turnover consists of

1. Turnover on outpatient prescriptions
2. Turnover for over-the-counter medicines
3. Turnover of small retail network

Retail turnover planning for an existing pharmacy

1. stage. Analysis of dynamics of trade turnover indicators for number of previous years

Example of analysis of dynamics of trade turnover indicators

We need to calculate percentage growth

We need to find ***dynamics*** of this indicator by the years

1 year 2 year 3 year 4 year 5 year

20 22 23 26 27

**What we do by steps:**

1. We calculate absolute increase (or decrease) of indicator in every subsequent year with comparision of previous year.

22 – 20 = 2

23 – 22 = 1

26 – 23 = 3

27 – 26 = 1

2. We calculate **growth rates in form of**

**- coefficient**

22 = 1.1

20

23 = 1.04

22

26 = 1.13

23

27 = 1.03

26

**- in percent**

20 - 100%

22 - X

X = 22 \* 100 = 110% , 110% - 100% = 10%

 20

22 - 100%

23 - X

X = 23 \* 100 = 104% , 104% - 100% = 4%

 22

23 - 100%

26 - X

X = 26 \* 100 = 113% , 113% - 100% = 13%

 23

26 - 100%

27 - X

X = 27 \* 100 = 103% , 103% - 100% = 3%

There are chain growth rates

3. We calculate average percent of growth in this dynamic series

10% + 4% + 13% + 3% = 7.5%

 4

7.5% is average percent of growth

4. We plan the indicator to the next year

1. - 100%

X - 107.5%

X = 27 \* 107.5 = 29

 100

1. stage. Planning based on trend that has developed over number of years, using results of analysis of indicators of dynamic series

(limiting use of this method: changes in factors that affect turnover indicators)

**3 question. Reasons for carrying out inventory in a pharmacy.**

Reasons for carrying out inventory in a pharmacy

* preparation of annual accounting report (not earlier than October 1 of reporting year)
* change of materially responsible persons
* identification of facts of theft or damage to property
* natural disasters, fire or other emergencies caused by extreme conditions
* reorganization (relocation) or liquidation of a company

Special reasons for carrying out inventory in a pharmacy with collective form of financial responsibility

* change of a head of an organization
* dismissal of more than 50% of organization`s members
* requirement of one or more organization`s members

**4 question. Fundamentals of pharmaceutical management**

Management is a complex of principles, methods, means and forms of administration for business organizations to improve their efficiency and increase profits in market conditions.

The fundamental feature of every organization is division of labor into it. There are two types of division: horizontal and vertical. The horizontal division of labor involves differentiation of the labor process, which leads to the formation of organizational departments. The vertical division of labor is used to differentiate between administrative work in coordinating all activities of the organization to be taken to achieve its objectives. This vertical division of labor of leaders forms the levels of management. The main elements of the management structure are the links (horizontal) and the levels (vertical). The link management is an independent administrative body, directly reporting to line managers.

Functions of management:
1. Planning
2. Organizing
3. Staffing
4. Directing
5. Coordinating
6. Controlling

The feature of management of pharmaceutical companies is combining the functions of drug supply with the scientific, industrial, control, analytical, commercial, medical, information functions. In the pharmaceutical company’s methods of trading management, coupled with the knowledge of organizational and legal issues of pharmacies, technology, medicine, pharmaceutical analysis and control, pharmacology, pharmacotherapy, pharmaceutical care, pharmaceutical ethics and deontology, psychology, etc. are widely used. It is important to the implementation of medicines and other goods, involving direct contact with consumers. Pharmacies are the final link in the chain of goods movement of pharmaceutical products. It defines such management tasks as formation of market information, demand for drugs and other pharmaceutical products assortment of the consumer preferences. With increasing competition among pharmacies organizational forms, attracting customers, expanding value added services, contacts with medical and other organizations, consumers, create and preserve the image of the pharmacy become very important

In the process approach there are four basic functions of management: planning, organization, motivation and control, they are interconnected and form the cycle of management. The object of management is a separate department or organization as a whole, which is directed to the control action. The subject of management is a management body or a person performing the control action.
Implementation of the management process requires:
a) the availability of the system (organization);
b) setting goals;
c) modelling of the desired system state;
d) a strict keeping to the impact process on the system in accordance with the objectives

Basic principles of management: Unity of command, Distribution of labor, Motivations, Leadership, Scientific, Responsibilities, Hierarchies, Selection and placement of personnel, Solvency, Expediency, Sequences of management actions

**5. Practical task.** **Retail sales of a pharmacy for last 3 yeas: 60 thousand rubles, 70 thousand rubles, 78 thousand rubles, expected implementation for current year 91.5 thousand rubles and quarterly: 25 thousand rubles., 22.8 thousand rubles, 19.1 thousand rubles, 24.6 thousand rubles. Develop a plan of retail turnover for a year and by quarters.**

We need to analyse of dynamics of trade turnover indicators for number of previous years using method of dynamic series

We need to calculate percentage growth

We need to find ***dynamics*** of this indicator by the years

1 year 2 year 3 year 4 year

60 70 78 91.5

**What we do by steps:**

1. We calculate absolute increase of indicator in every subsequent year with comparision of previous year.

60 – 70 = 10

78 – 70 = 8

91.5 – 78 = 13.5

2. We calculate **growth rates**

**- in percent**

60 - 100%

70 - X

X = 70 \* 100 = 117% , 117% - 100% = 17%

 60

70 - 100%

78 - X

X = 78 \* 100 = 111% , 111% - 100% = 11%

 70

78 - 100%

91.5 - X

X = 91.5 \* 100 = 113% , 117% - 100% = 17%

 78

There are chain growth rates

3. We calculate average percent of growth in this dynamic series

17% + 11% + 17% = 15%

 3

15% is average percent of growth

4. We plan the indicator to the next year

* 1. - 100%

 X - 115%

X = 91.5 \* 115 = 105.22 thousand rubles

 100

1. We determine the structure of retail sales by quarters in percentage in the current year

91.5 – 100%

25 – X 1 quarter

X = 27.32 %

91.5 – 100%

22.8 – X 2 quarter

X = 24.91%

91.5 – 100%

19.1 – X 3 quarter

X = 20.87%

91.5 – 100%

24.6 – X 4 quarter

X = 26.88%

5. Next, we find retail sales for the next year by quarter. To do this, we transfer the quarterly retail sales structure found for the current year to the next year's retail sales plan.

105.22 – 100%

 Х – 27.32 % 1 quarter

X = 28.75 thousand rubles

105.22 – 100%

 Х – 24.91% 2 quarter

X = 26.21 thousand rubles

105.22 – 100%

 Х – 20.87% 3 quarter

X = 21.96 thousand rubles

105.22 – 100%

 Х – 26.88% 4 quarter

X = 28.28 thousand rubles