

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

**SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY
OF ECONOMICS**

BUSINESS DIAGNOSTICS

**Guidelines to completing practical tasks
for Master's (second) degree
higher education students
of speciality 051 "Economics"
of the study program "Business Economics"**

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B97

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The main issues concerning the methodology and tools for solving practical tasks in the course are set out. Practical tasks are presented for the formation of professional competences in the complex economic diagnostics of the financial, investment and operational activities of enterprises, the development of measures to raise the efficiency of the use of enterprise resources in accordance with the program of the course.

For Master's (second) degree higher education students of speciality 051 "Economics" of the study program "Business Economics".

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Introduction

In modern conditions of the national economy, increasing the efficiency of functioning and strengthening the market positions of an enterprise in the competitive struggle require a comprehensive study of all aspects of its activities. Such diagnostics of the state of an economic entity makes it possible to identify problems of functioning, hidden reserves and promising directions for improving the use of material, labor and financial resources, taking into account economic, socio-demographic, scientific and technical and other trends.

The course "Business Diagnostics" is mandatory and it is studied in accordance with the curriculum for the training of specialists of the second (master's) educational level in specialty 051 "Economics", educational program "Business Economics" of all forms of study.

The purpose of the course is to form a system of knowledge and practical skills in the methodology for conducting a comprehensive business diagnostics of an enterprise's activities and developing, based on its results, measures to raise the efficiency of its activities.

The purpose of practical classes is to consolidate theoretical knowledge and form practical skills in determining the means of effective organization of business diagnostics of an enterprise, assessing reserves for raising the efficiency of the enterprise's operational, investment and financial activities, determining and assessing the efficiency of the use of enterprise's resources in the management process, mastering practical skills related to developing measures to improve the economic and financial situation of the enterprise, assessing the effectiveness of the enterprise's management system, developing and optimizing components of business diagnostics of an enterprise, forming effective business structures of the enterprise.

To ensure the proper level of mastery of the educational material by students during practical classes, the teacher uses a system of interrelated educational activities to form professional competences.

The learning outcomes and competences that the course forms are defined in Table 1.

Table 1

Learning outcomes and competences that the course forms

Learning outcomes	Competences
LO7	SC1, SC3, SC4, SC7
LO8	GC2, SC3
LO11	GC8, SC1, SC5, SC6, SC7
LO12	GC2, SC1, SC3, SC5, SC7
LO14	SC5, SC6, SC8

Note.

LO7. The ability to choose effective methods of managing economic activities, justify proposed solutions based on relevant data and scientific and applied research.

LO8. The ability to collect, process and analyze statistical data, scientific and analytical materials necessary for solving complex economic problems.

LO12. The ability to justify management decisions regarding the effective development of business entities, taking into account goals, resources, constraints, and risks.

LO11. The ability to identify and critically assess the state and trends of socio-economic development, form and analyze models of economic systems and processes.

LO14. The ability to develop scenarios and strategies for the development of socio-economic systems.

GC2. The ability to think abstractly, analyze and synthesize.

SC1. The ability to apply scientific, analytical, and methodological tools to substantiate the development strategy of economic entities and related management decision-making competences.

SC3. The ability to collect, analyze and process statistical data, scientific and analytical materials necessary for solving complex economic problems, and draw substantiated conclusions based on them.

SC5. The ability to identify key trends in socio-economic and human development.

SC7. The ability to justify management decisions regarding the effective development of business entities.

Chapter 1

Guidelines and examples of solving practical tasks

Content module 1. Methodology for conducting business diagnostics of an enterprise and diagnosing financial, production and marketing aspects of entrepreneurial activity

Conducting a practical lesson involves the use of a system of various active and interactive teaching methods: practical tasks, exercises that cover the most important issues of the course "Business Diagnostics". One of the main components of conducting a practical lesson in the course is the connection with the content of professional activity and its focus on constantly updating knowledge and forming relevant competences.

It is necessary to consider examples of reference solutions to practical tasks of various levels of complexity.

Topic 1. Basic theoretical issues of enterprise business diagnostics

The seminar class on the topic "Features of conducting business diagnostics"

The purpose of the seminar session: to expand, deepen and consolidate knowledge regarding the essence, objects of study, subject, methods, sources, content and tasks of enterprise business diagnostics; the sequence of implementation of the business diagnostics process, its patterns and principles.

Recommended reading: main [1; 2; 3]; additional [5; 9; 14].

Guidelines for conducting the seminar class

The seminar session is conducted in an active form. The purpose of conducting a seminar in an active form is to activate the thinking of the participants (students) by involving them in the organization and management of the seminar. This seminar session includes two parts: preparatory and main. The preparatory part has separate stages: familiarization with the topic of the seminar session; appointment of the presenter (from

among the students) of the seminar session and the arbitrator for the presenter (also from among the students); development of the seminar regulations by the presenter. The seminar session regulations are developed by the presenter in advance and independently, for which he needs to carefully familiarize himself with the topic of the seminar and study the issues that should be considered according to the plan of this session. The total duration of the presentation on the issue depends on its complexity and significance, as well as on the volume of material that should be considered at the seminar session. After developing the regulations, the presenter informs the speakers in advance (before the day of the seminar sessions) about the time allotted for their report, message. The moderator is given the right to appoint speakers (representatives) for the seminar issues, as well as arbitrators for each speaker. The same listener can be a speaker for one issue and an arbitrator for another.

Functions of the presenter. The main part of the seminar session begins with an introductory speech by the presenter. The presenter must announce the topic of the seminar, name the issues that will be discussed, and make a brief introduction to the topic. After that, he announces the issue that will be discussed, the name of the speaker on the issue, informs the speaker of his rules, and names the arbiter on the issue. The function of the presenter is to monitor and ensure the observance of the rules. After the end of the speech on the issue of the seminar, the presenter must find out whether the audience have any questions to the speaker or additions to the rules. After discussing the speech on the issue, the presenter gives the floor to the arbiter on the same issue, at the same time informing him of his rules. After the arbiter's comments and his assessment of the speech, the presenter summarizes the consideration of the issue and the arbiter's assessment, and then proceeds to discuss the next issue of the seminar. After reviewing the seminar questions, the speaker summarizes the entire session by briefly summarizing the presentations on all the questions, focusing the audience's attention on the key points of the topic. After that, he hands over the floor to his referee.

Functions of the arbitrator for the speaker. The referee must be well-versed in the issue for which he gives an assessment – a review of the speech. When assessing the speaker's speech, the referee must be guided by such criteria as compliance with the speech time, disclosure of the content

of the question, involvement of practical materials, figures, examples, quotes, graphs, illustrations, correctness of language, logic of presentation, style of behavior, ability to captivate the audience. At the same time, the referee must pay special attention to the disclosure of the content of the question. If the speaker did not disclose the question in full or made mistakes, or perhaps in the process of discussing this question, the main points were missed, and none of the speakers noted this with additions, then the referee must draw the audience's attention to this and make the necessary amendments and additions.

Functions of the referee of the host. The moderator arbiter evaluates the moderator's performance throughout the seminar. In doing so, he or she should use such criteria as development and adherence to the class schedule, knowledge of the questions, ability to correct, supplement, ability to organize discussions, psychological tact, and accuracy. In addition, it is necessary to evaluate not only the conduct of the class, but also the preparation and organization of the seminar. The arbitrator should pay particular attention to the facilitator's ability to organize a discussion of all issues so that the seminar plan is fully implemented.

Topic 2. Diagnostics of strategic planning and operational management at an enterprise

Example task 2.1.

Assess the need and volume of an additional short-term loan based on the results of the planned activities of the furniture assembly company LLC "Furniture" for January 2025 with the following projected indicators of its economic activity.

The purchase of components is planned for the amount of 218,250 UAH, of which only 35 % of the cost will be paid in cash by January 31, 2025.

The remaining components in the warehouse at the end of the month will amount to 8,730 UAH.

The sale of finished products will be made for the amount of 450,000 UAH (excluding VAT), of which 48 % will be paid in cash by January 31, 2025.

The planned gross expenses will be as follows: production personnel salaries with accruals: 49,500 UAH (payments by January 31, 2025), production overheads (excluding depreciation and rent): 56,250 UAH, depreciation:

644 UAH, rent paid at the end of last year for a year in advance and included in expenses every month, administrative expenses: 33,750 UAH (payments after January 31, 2025), marketing expenses: 29,250 UAH (payments by January 31, 2025).

The interest rate of the bank loan is 24 % per annum. Interest is paid by the last day of each month. Existing accounts payable, accrued liabilities and debts to the budget are repaid within a month. Debtors repay their debts by half within a month.

The financial manager of the enterprise believes that the minimum amount of cash in the account, which guarantees him reliable daily activities, is 22,000 UAH. The balance sheet of the enterprise at the beginning of the month (January 1, 2025) is presented in Table 1.1.

Table 1.1

Opening balance of the company "Furniture" LLC, UAH

Assets	January 1, 2025
Fixed assets	
Initial cost	32,762
Accumulated depreciation	1,862
Residual value	30,900
Working capital	
Funds	22,400
Accounts receivable	48,000
Goods and materials	5,400
Prepaid rent of premises	12,000
Total assets	118,700
Liabilities	
Equity	
Authorized capital	30,000
Retained earnings	12,680
Long-term debts	
Long-term bank loan	20,000
Short-term debts	
Accounts payable	34,000
Accrued liabilities	21,200
Bank loan	–
Income tax arrears	820
Total liabilities	118,700

Determine the minimum amount of additional financing for Furniture LLC (if needed).

Solution:

To estimate the amount of additional financing required, it is necessary to prepare the company's balance sheet at the end of the month and the income statement for the month. When preparing the income statement, we will use the format for preparing the financial results statement.

Table 1.2 presents the forecast for the financial results report for January.

Table 1.2

Forecast report on the financial results of the enterprise, UAH

Indicator	Value
Net profit	450,000
Production cost:	322 314
Material costs	214,920
Payment for direct labor	49,500
Manufacturing overhead costs	56,250
Rent	1,000
Amortization	644
Gross income	127,686
Administrative costs	33,750
Marketing expenses	29,250
Operating profit	64,686
Interest payments	400
Profit before income tax	64,286
Income tax	11,571.48
Net profit	52,714.52

When preparing a financial statement, all cost elements are taken directly from the source data. The exception is material costs. To calculate them, it is necessary to add the value of inventories at the beginning of the month (this number is presented in the balance sheet, Table 1.1) to the value of purchased inventories during the month and subtract the balance of inventories at the end of the month (the last two numbers are indicated in the source data). The calculation of interest payments is made based on the total amount of debt (indicated in the balance sheet, Table 1.1) and an interest rate of 24 % per year or 2 % per month.

The net profit of the enterprise according to calculations is 52,714.52 UAH, and from this point of view, this is an effective result of its functioning for the enterprise. It is worth recalling that the financial results report is prepared

on an accrual basis, which does not coincide with the cash basis, i.e. the presence of profit does not mean that a sufficient amount of funds has been secured.

A budget is a planning document that reflects future payments and cash receipts.

The budget of funds: brings together all negative and positive cash flows; necessarily contains a financial section that provides for the use of borrowed financial resources in the event of a negative cash flow (money deficit); ensures the implementation of the principle of excess funds (loan funds must provide the minimum allowable amount of the cash account).

Let's calculate the cash account. To do this, it is necessary to calculate all cash payments and receipts according to the initial data. This calculation is presented in Table 1.3.

Table 1.3

Forecast of the company's cash account, UAH

Indicator	Value
Opening balance	22,400
Repayment of accounts receivable last month	24,000
Cash receipts from sales	216,000
Cash costs due to the purchase of components	(76,388)
Payment of production personnel	(49,500)
Payment of production overhead costs	(56,250)
Payment of marketing expenses	(29,250)
Repayment of accounts payable last month	(34,000)
Interest payments	(400)
Repayment of accrued liabilities last month	(21,200)
Payments of tax arrears	(820)
Final balance	(5,408)

The repayment of accounts receivable last month according to the terms is half of the amount of existing accounts receivable, indicated in the balance sheet item "accounts receivable".

Cash receipts from sales are assumed to be 48 % of total revenue. The remaining revenue is classified as accounts receivable and is added to the accounts receivable balance from the previous month.

Cash costs resulting from the purchase of components are conditionally 35 % of the total amount of purchases made. The remaining cost of components is placed on accounts payable and recorded in the balance sheet at the end of the month.

Payment for production personnel, production invoices, and marketing costs is made during the month, and therefore all listed costs are cash outflows for the month (their values are indicated in the source data).

Payment of administrative expenses under the terms of the assignment is made in the following month, and therefore these expenses are not included in the number of cash payments for the month, but are classified as accrued liabilities and, accordingly, are included in the liabilities of the balance sheet at the end of the month.

Payments corresponding to the repayment of accounts payable, accrued liabilities, and tax arrears for the previous month are calculated according to the values indicated in the balance sheet at the beginning of the month.

The amount of interest payments is taken from the income statement (interest on the loan, according to the assignment, is repaid before the end of the month).

So, according to the calculations, we have a negative value of the enterprise's cash account at the end of the month. For verification, the enterprise's balance sheet at the end of the month is compiled.

The forecast balance is presented in Table 1.4.

Table 1.4

**Balance sheet of the enterprise at the beginning and end
of the month, UAH**

Assets	Jan. 1, 2025	Jan. 31, 2025
1	2	3
Fixed assets		
Initial cost	32,762	32,762
Accumulated depreciation	1,862	2,506
Residual value	30,900	30,256
Working capital		
Funds	22,400	-5,408
Accounts receivable	48,000	258,000
Goods and materials	5,400	8,730
Prepaid rent of premises	12,000	11,000
Total assets	118,700	302,579

Table 1.4 (the end)

1	2	3
Liabilities		
Equity		
Authorized capital	30,000	30,000
Retained earnings	12,680	65,394.52
Long-term debts		
Long-term bank loan	20,000	20,000
Short-term debts		
Accounts payable	34,000	141,863
Accrued liabilities	21,200	33,750
Bank loan	-	
Income tax arrears	820	11,571.48
Total liabilities	118,700	302,579

The amount of retained earnings at the end of the month is equal to the value of this item at the beginning of the month plus the amount of net profit for the month (from the financial results report). All other items were explained above when commenting on the calculation of the cash account at the end of the year. The amount of assets is equal to the amount of liabilities of the enterprise, which confirms the correctness of the calculation of the cash account.

The financial director noted, in the terms of the task, the minimum amount of funds is 22,000 UAH in the current account at the end of the month, as a result of the activities of the enterprise LLC "Furniture" the value of -5,408 UAH is predicted, accordingly the enterprise needs to attract credit funds in the amount of 28,000 UAH to carry out its activities.

Topic 3. Analysis of the enterprise financial condition

Example task 3.1.

Using the example of LLC "Rizdvozar", determine the profit, break-even point, gross margin, financial stability margin, and operating leverage if sales revenue is 39,500 UAH, variable costs are 7,889.1 UAH, and fixed costs are 12,824.97 UAH.

Determine: how many percent of profit can LLC "Rizdvozar" retain if sales revenue decreases by 30 % and by how many percent must fixed costs be reduced so that, with a 30 % reduction in revenue and the previous value of the operating leverage, LLC "Rizdvozar" retains 50.4 % of the expected profit?

Solution:

The calculation of profit, break-even point, gross margin, financial stability reserve, and operating leverage is presented in Table 1.5.

Table 1.5

Calculation of performance indicators of LLC "Rizdvozar"

Indicators	Definition	Calculation
Total expenses (TE)	Variable costs (VC) + + Fixed costs (FC)	20,714.07 UAH
Profit (P)	Revenue from sales (R_s) – – TE	18,785.93 UAH
Gross margin (GM)	$P + FC$	31,610.9 UAH 80.03 %
Break-even point (BE_p)	FC / GM	16,025.8 UAH
Financial sustainability reserve	$R_s - BE_p$	23,474.2 UAH 59.4 %
Operating lever (OL)	$GM / P = (P + FC) / P$	1.68 shows the percentage increase (decrease) in profit with changes in revenue
Change of VC	$(OL - 1) \times P$	6,438.31 UAH

If revenue decreases by 30 %, profit will decrease by 50.4 %. This means that LLC "Rizdvozar" will retain almost half of the expected profit of 49.6 % ($100 - 50.4$).

To maintain 50.4 % of the profit, or 9,468.11 UAH, it is necessary that fixed costs do not exceed 6,438.31 UAH, or 50.2 % of the initial amount of fixed costs. That is, it is necessary that fixed costs be 49.8 % less than the initial amount of fixed costs of the enterprise LLC "Rizdvozar".

Example task 3.2.

Based on the data provided in the balance sheet of LLC "Winstal-Ukraine" (Appendix A) and the report on the financial results of the enterprise (Appendix B), determine the dynamics of the enterprise's profit indicators and indicators of the profitability of the enterprise's results. Types of activities of LLC "Winstal-Ukraine" are: main: activities in the field of wired telecommunications; other: electrical installation work; repair of computers and peripheral equipment; repair of communication equipment; computer programming.

Draw conclusions about the profitability of the activities of Winstal-Ukraine LLC.

Solution:

Profit as the main financial result of an enterprise's activities is the part of revenue that remains after all expenses related to the production and commercial activities of the enterprise are reimbursed.

To determine the dynamics of the company's profit indicators use Table 1.6.

Table 1.6

Analysis of financial results of LLC "Winstal-Ukraine", thousand UAH

Article	For the reporting period	For the previous period	Deviation	
			absolute, thousand UAH	relative, %
Net income from sales of products (goods, works, services)	9,908	20,986	-11,078	-53
Cost of goods sold	31,768	23,131	8,637	37.34
Gross:				
profit				
loss	21,860	2 145	19,715	919.11
Other operating income	103	77	26	33.77
Administrative costs	3,155	2,195	960	43.74
Other operating expenses	400	334	66	19.76
Financial result from operating activities:				
profit				
loss	25,312	4,597	20,715	450.62
Other income	500	–	500	100
Other expenses	5	–	5	100
Financial results before tax:				
profit				
loss	24,817	4,597	20 220	439.85
Net financial result:				
profit				
loss	24,817	4,597	20 220	439.85

Analyzing the financial results of the enterprise LLC "Winstal-Ukraine", it should be concluded that at the stage of gross profit, the enterprise has a loss of 21,860 thousand UAH for the reporting period, which is 8,637 thousand UAH more than for the previous period. This is due to the fact that the net income from the sale of the enterprise's services does not cover the costs of the cost of services provided to users. According to this conclusion, we can note that the net financial result of the enterprise also has

a loss of 24,817 thousand UAH in the reporting year, which is 20,220 thousand UAH more than in the previous period. The profitability indicators of the enterprise's performance are not calculated, the enterprise is unprofitable and has no profitability or efficiency from its activities.

Example task 3.3.

Using the financial statements of Metelyk LLC (Table 1.7 and Table 1.8), determine the efficiency indicators of the enterprise at the end of the period.

Table 1.7

A fragment of the balance sheet of Metelyk LLC, thousand UAH

Indicator	Code line	Value	
		at the beginning of the period	at the end of the period
Assets			
I. Non-current assets			
Total under Section I	1095	9,600	9,800
II. Current assets			
Total under Section II	1195	18,700	21,300
Balance	1300	28,300	31,100
Liabilities			
I. Equity			
Total under Section I	1495	6,800	8 100
II. Long-term liabilities and provisions			
Total under Section II	1595	1,300	800
III. Current liabilities and provisions			
Total under Section III	1695	20,200	22,200
Balance	1900	28,300	31,100

Table 1.8

A fragment of the financial results report, thousand UAH

Article	For the reporting period
1	2
Net income (revenue) from the sale of products (goods, works, services)	18,000
Cost of goods sold (goods, works, services)	15,000
Gross:	
profit	3,000
Financial results from operating activities:	

Table 1.8 (the end)

1	2
profit	1,900
Net financial result	
profit	1,500

It is necessary to determine: profitability by operating profit; profitability of non-current assets; profitability of current assets; profitability of borrowed capital; profitability of equity; profitability of products by gross profit. Draw a conclusion regarding the efficiency of the functioning of the enterprise "Metelyk" LLC at the end of the period.

Solution:

Profitability indicators:

Profitability by operating profit:

$$P_{OP} = \frac{F.2 \text{ CL } 2 \text{ 190}}{F.2 \text{ CL } 2 \text{ 000}} \times 100 \%,$$

where F.2 is the statement of financial results (statement of comprehensive income);

CL is the code line.

Return on non-current assets:

$$R_{NA} = \frac{F.2 \text{ CL } 2 \text{ 350}}{[(CL \text{ 1 } 095 \text{ (end)} + CL \text{ 1 } 095 \text{ (beginning)}) F.1]: 2} \times 100 \%,$$

where F.1 is the balance sheet (statement of financial position).

Return on current assets:

$$R_{CA} = \frac{F.2 \text{ CL } 2 \text{ 350}}{[(CL \text{ 1 } 195 \text{ (end)} + CL \text{ 1 } 195 \text{ (beginning)}) F.1]: 2} \times 100 \%.$$

Return on borrowed capital:

$$R_{BA} = \frac{F.2 \text{ CL } 2350}{[(CL1595 + 1695 \text{ (end)} + CL1595 + 1695 \text{ (beginning)}) F.1]: 2} \times 100\%.$$

Return on equity:

$$R_E = \frac{F.2 \text{ CL } 2350}{[(CL1495 \text{ (end)} + CL1495 \text{ (beginning)}) F.1]: 2} \times 100\%.$$

Product profitability by gross profit:

$$P_{GP} = \frac{F.2 \text{ CL } 2090}{F.2 \text{ CL } 2050} \times 100\%.$$

To determine the profitability indicators of the enterprise use Table 1.9.

Table 1.9

Determining the enterprise profitability, %

Indicators	Reporting period
Profitability by operating profit	$1,900 / 18,000 \times 100 = 10.56$
Return on non-current assets	$1,500 / ((9,600 + 9,800) / 2) \times 100 = 15.46$
Return on current assets	$1,500 / ((18,700 + 21,300) / 2) \times 100 = 7.5$
Return on equity	$1,500 / ((6,800 + 1,300 + 8,100 + 800) / 2) \times 100 = 17.65$
Return on borrowed capital	$1,500 / ((20,200 + 22,200) / 2) \times 100 = 7.1$
Product profitability by gross profit	$3,000 / 15,000 \times 100 = 20$

After analysis of the data from the table, we can draw the following conclusions: the profitability of operating profit was 10.56 %, which indicates that the enterprise has additional financial opportunities to expand production activities and improve the results of the enterprise as a whole. The profitability of assets is at an average level, so we can conclude that the profit received per unit of the enterprise's assets or per unit of all invested funds must be increased in the planning period. The profitability of equity and debt capital

also has a positive trend. The profitability of products by gross profit was 20 %, which indicates an increase in the efficiency of the use of the enterprise's economic activities, which is a positive trend.

Topic 4. Determining the enterprise efficiency of the production and technological system

Example task 4.1.

Analyze the efficiency of the production and technological system of the Malama LLC enterprise based on the initial data in Table 1.10.

Table 1.10

Analysis of the efficiency of the production and technological system

Indicator	Previous period	Reporting period	Deviation	
			Absolute, thousand UAH	Relative, %
1. Commodity products, thousand UAH	72 603	80 657	8 054	11.09
2. Average number of people	44	44	0	0
3. Original cost of fixed assets, thousand UAH	22 803	24 603	1 800	7.89
4. Depreciation, thousand UAH	18 701	18 989	288	1.54
5. Residual value, thousand UAH	4 732	5 614	882	18.64
6. Average annual cost of fixed assets, thousand UAH	2 747.5	5 173	2 425.5	88.28
7. Return on investment UAH / UAH (item 1 / item 6)	26.43	15.59	-10.84	-41.01
8. Capital intensity UAH / UAH (item 6 / item 1)	0.04	0.06	0.02	60.34
9. Capital adequacy, thousand UAH / person (item 6 / item 2)	62.44	117.57	55.13	88.29
10. Coefficient of wear of the fixed assets (item 4 / item 3)	0.82	0.77	-0.05	-5.88
11. Fixed assets suitability coefficient (items 1 – item 10)	0.18	0.23	0.05	26.77
12. Personnel productivity, thousand UAH / person (item 1 / item 2)	1 650.07	1 833.11	183.04	11.09

Solution:

The calculation formulas and economic content of the indicators of the efficiency of use of fixed assets of the enterprise are presented in Table 1.11.

Table 1.11

Efficiency indicators of the enterprise's production and technological system

No. of the company	Indicators	Units of measurement	Calculation formula	Economic content
1	Commodity products	thousand UAH	$F.2, CL\ 2\ 000 + F.1, CL\ 1\ 103\ (end) - F.1, CL\ 1\ 103\ (beginning)$	Quantity of manufactured products for a particular period in value terms
2	Average annual cost of fixed assets	thousand UAH	$(F.1, CL\ 1\ 010 + F.1, CL\ 1\ 010) / 2$	Average cost of fixed assets for the period
3	Average annual staff size	persons	F.1	The average number of employees of the enterprise for a particular period
4	Fund return	UAH / UAH	item 1 / item 2	Output per one hryvnia of fixed assets value
5	Capital intensity	UAH / UAH	item 2 / item 1	Cost of fixed assets per one hryvnia of output
6	Funding	UAH / UAH	item 3 / item 2	The level of provision of basic means to the enterprise's industrial and production personnel
7	Wear coefficient		$F.1, CL\ 1\ 012 / F.1, CL\ 1\ 011$	Characterizes the level of depreciation of fixed assets
8	Suitability coefficient		$1 - (F.1, CL\ 1012 / F.1, CL\ 1011)$	Shows the proportion of the cost of fixed assets for which depreciation has not yet been accrued
<p>Note: F.1 is the balance sheet reporting form, we are looking for a line according to the formula in the balance sheet. CL is the code line. F.2 is the financial results statement, a line according to the formula in the financial results statement</p>				

Example task 4.2.

Based on the data provided in the balance sheet of Winstal-Ukraine LLC (Appendix A) and the report on the financial results of the enterprise (Appendix B), determine the dynamics of the efficiency indicators of the enterprise's production and technological system.

Draw conclusions about the efficiency of the production and technological system of the enterprise LLC "Winstal-Ukraine".

Solution:

The technical condition of fixed assets is characterized by such indicators as the wear rate and the suitability rate.

The depreciation rate is the ratio of the depreciation amount to the original cost of fixed assets.

The suitability coefficient is the ratio of the residual to the original cost of fixed assets.

To determine the indicators of the technical condition of the enterprise's fixed assets, use Table 1.12.

Table 1.12

Indicators of the technical condition of fixed assets

Indicator	Units of measurement	Previous period	Reporting period	Absolute deviation, thousand UAH	Relative deviation, %
Average annual cost of fixed assets	thousand UAH	5,933	5,794	-139	-2.34
Amount of depreciation of fixed assets	thousand UAH	30,443	32,337	1,894	6.22
Cost of fixed assets	thousand UAH	36,376	38,131	1,755	4.82
Wear coefficient		0.84	0.85	0.01	1.33
Suitability coefficient		0.16	0.15	-0.01	-6.84

The average annual cost of fixed assets decreased by 139 thousand UAH, the amount of depreciation increased by 1,894 thousand UAH. Analyzing the indicators of the state of fixed assets of the enterprise, it should be noted that a slight increase in the depreciation coefficient is observed, its value at the end of the year was 0.85, which may negatively affect the activities of the enterprise. However, this trend may be caused by the introduction of new fixed assets and a change in the choice of depreciation methods in the direction of accelerated depreciation. The suitability coefficient is accordingly equal to 0.15 at the end of the year, compared to the indicators of an efficiently operating enterprise, this is a too small indicator, which also has a negative trend.

To determine the efficiency of the use of fixed assets of an enterprise, use Table 1.13.

Table 1.13

Indicators of efficiency of use of fixed assets

Indicator	Units of measurement	Previous period	Reporting period	Absolute deviation, thousand UAH	Relative deviation, %
Sold products	thousand UAH	20,986	9,908	-11,078	-52.79
Average annual cost of funds	thousand UAH	5,933	5,794	-139	-2.34
Fund return	UAH / UAH	3.54	1.71	-1.83	-51.65
Capital intensity	UAH / UAH	0.28	0.58	0.30	106.85

In the reporting period at the enterprise, it decreased by 1.83, a decrease in the return on assets indicator shows a decrease in the efficiency of the use of fixed assets. Asset intensity is the inverse of the return on assets. At the end of the reporting period, asset intensity increased by 0.30 (106.85 %), an increase in the asset intensity indicator shows a decrease in the efficiency of the use of fixed assets at Winstal-Ukraine LLC.

Topic 5. Diagnosis of the enterprise's marketing system

Example task 5.1.

Based on the data in Table 1.14, establish the correspondence between the division of marketing types from demand and the goal of marketing policy inherent in this type.

Table 1.14

Types of marketing depending on demand

Types of marketing	Demand	Target
1	2	3
Conversional	Satisfactory	Create demand
Stimulant	Fluctuating	Restore demand
Creative	Decreasing	Maintain the achieved level of demand
Remarketing	Excessive	Stimulate demand
Synchromarketing	Irrational	Reduce demand to zero
Counteractive	Missing	Stabilize demand

Table 1.14 (the end)

1	2	3
Demarketing	There is potential demand, but the product is not yet available	Reduce demand
Supporting	Negative	Convert potential demand into real demand

Solution:

The correspondence between the type of marketing, the state of demand and the goal of marketing activities that corresponds to a certain state of demand for the enterprise's products is presented in Table 1.15.

Table 1.15

Types of marketing depending on demand

Types of marketing	Demand	Goal
Conversional	Negative	Create demand
Stimulant	Missing	Stimulate demand
Creative	There is potential demand, but the product is not yet available	Convert potential demand into real demand
Remarketing	Decreasing	Restore demand
Syncromarketing	Fluctuating	Stabilize demand
Counteractive	Irrational	Reduce demand to zero
Demarketing	Excessive	Reduce demand
Supporting	Satisfactory	Maintain the achieved level of demand

Example task 5.2.

The company has a market share of 18 %. Its three main competitors have 12 %, 16 %, and 22 %, respectively. Determine the relative market share, the market share relative to the three main competitors, and the market share relative to the leader.

Solution:

Relative market share is defined as the ratio of the company's market share to the market share of its competitors. Accordingly, market share relative to the three main competitors is defined as the ratio of the company's market share to the market share occupied by the three main competitors.

Market share relative to the leader is calculated as the ratio of the absolute market share of the enterprise to the market share owned by the leader.

Market share relative to the three main competitors = $18 / 50 \times 100 = 36 \%$.

Market share relative to the leader = $18 / 22 \times 100 = 82 \%$.

Thus, we can conclude that the market share of the three main competitors is 36 %.

Example task 5.3.

Based on the data in Table 1.16, calculate the integral competitiveness index of an enterprise that manufactures new generation hotel-type buildings. A similar enterprise that manufactures and installs the same hotel-type buildings was chosen as a competitor. Draw the appropriate conclusions.

Table 1.16

Characteristics of the enterprise's competitiveness

No.	Indicator	LLC "Mriya"	LLC "Oselya"
1	Profit from the use of a hotel-type building per year, thousand UAH	45	42
2	Total design costs per house, thousand UAH	10.5	9.8
3	The costs for building construction are given, thousand UAH	15.5	16.5
4	Average annual costs for operating a house, thousand UAH	25	24
5	Optimal service life of the house, years	25	25

Solution:

An integral indicator is the ratio of the total useful effect from the operation or consumption of a product to the total costs of acquiring and using this product.

To calculate the integral indicator (I), the following formula is used:

$$I = \frac{\sum E}{RC_p} + \sum RC_{ot}, \quad (1)$$

where ΣE is the total useful effect for the optimal service life;

RC_p is the reduced costs of purchasing the product (the sum of the reduced costs of creating the product per unit and for its production);

ΣRC_{ot} is the resulting costs for the operation of the product in the t -th year of its optimal service life;

t is the serial number of the year of service.

By comparing the values of the integral competitiveness indicators of the products under consideration, it is possible to calculate the relative integral competitiveness indicator of the evaluated product (I_{ep}) relative to the sample (I_s), that is, to establish the level of competitiveness:

$$K = \frac{I_{ep}}{I_s}, \quad (2)$$

where I_{ep} and I_s are integral indicators of the competitiveness of the corresponding evaluated product and its analogue.

If $K > 1$, then the evaluated product exceeds the competitiveness of the analog product;

If $K < 1$, then the evaluated product is inferior to the analogue;

If $K = 1$, then the goods are at the same level.

For each manufacturer, we will calculate the integral competitiveness indicators:

$$I_{ep} = \frac{45 \times 25}{10.5 + 15.5 + 25 \times 25} = 1.73,$$

$$I_s = \frac{42 \times 25}{9.8 + 16.5 + 24 \times 25} = 1.68.$$

Let's calculate the relative integral indicator of the competitiveness of the evaluated product relative to the sample, that is, we will establish the level of competitiveness:

$$K = \frac{1.73}{1.68} = 1.03.$$

Conclusions: The relative integral competitiveness indicator is 1.03, that is, the evaluated product exceeds the competitiveness of the analogous product.

Example task 5.4.

An office furniture manufacturing company makes a decision on optimizing product sales. One of the most problematic positions is office chairs (a large number of competitors and a price higher than that of competitors). Using the standard probability distribution method, based on expert estimates, determine the most likely range of forecast estimates for sales of office chairs. According to the optimistic forecast, 250 thousand units will be sold, according to the pessimistic forecast, 220 thousand units, and most likely, according to experts, 240 thousand units will be sold.

Solution:

The standard probability distribution method allows us to determine the most likely range of sales forecast estimates based on expert estimates. Three types of sales forecasts are determined by expert means:

O is optimistic forecast;

M is the most likely forecast;

P is a pessimistic forecast.

The expected value of the sales forecast (EV) is calculated:

$$EV = \frac{O + 4M + P}{6}. \quad (3)$$

Standard deviation (SD):

$$SD = \frac{O - P}{6}. \quad (4)$$

According to the general theory of statistics, the most likely (with a probability of 95 %) forecast will be within:

$$\text{Sale} = Pz \pm 2SD. \quad (5)$$

The expected value of the sales forecast:

$$EV = \frac{250 + 4 \times 220 + 240}{6} = 228 \text{ thousand pcs.}$$

Standard deviation:

$$SD = \frac{250 - 220}{6} = 5 \text{ thousand pcs.}$$

So the sale is equal to:

$$\text{Sales} = 228 \pm 2 \times 5 = 228 \pm 10 = 218 - 238 \text{ thousand pcs.}$$

Thus, according to the standard probability distribution method, the expected sales volume at the enterprise will be 218 – 238 thousand chairs per year.

Content module 2. Diagnosing human resource management and developing recommendations based on the results of comprehensive diagnostics

Topic 6. Analysis of the personnel management system

Example task 6.1.

At the beginning of the reporting year, the registered number of personnel of the enterprise was 1,450 people. During the year, 128 people were hired and dismissed for various reasons, namely: 11 people due to admission to higher educational institutions, 17 people due to conscription into the military, 19 people due to retirement, 28 people at their own request, 9 people for violation of labor discipline, 29 people due to transfer to branches of the enterprise. The average registered number of personnel was 1,459 people. Determine the indicators of the movement of labor resources of the enterprise.

Solution:

Total turnover ratio:

$$K_{TPT} = (E_H + E_D) / E_A, \quad (6)$$

where K_{TPT} is the coefficient of Total Personnel Turnover;

E_H is the number of employees hired by the enterprise, people;

E_D is the number of employees dismissed from the enterprise, persons;

E_A is average number of employees, persons.

Turnover ratio by appointment:

$$K_{TA} = E_H / E_A, \quad (7)$$

where K_{TA} is the coefficient of turnover ratio by appointment.

Turnover on disposal ratio:

$$K_{TD} = E_D / E_A, \quad (8)$$

where K_{TD} is the coefficient of turnover on disposal ratio.

The turnover ratio is calculated as the ratio of the number of employees who were dismissed during the reporting period for absenteeism and other violations of labor discipline, incompatibility with the position held, as well as at their own request (except for those dismissed at their own request for good reasons), to the average number of full-time employees.

The staff turnover ratio is calculated by dividing the number of employees hired during a period by the number of employees who left during that period.

The staff retention ratio is the ratio of the number of employees who were on the payroll throughout the reporting year to the average number of employees for the year.

Analysis of the movement of labor resources of the enterprise is presented in Table 1.17.

Table 1.17

Analysis of the movement of labor resources of the enterprise

Indicators	Result
Turnover on disposal ratio	0.08
Turnover ratio by appointment	0.09
Turnover ratio	0.03
Total turnover ratio	0.17
Staff turnover ratio	1.13
Staff retention ratio	0.99

The company has good labor turnover indicators, as all coefficients are within normal limits. This means that the organization has selected qualified employees and created good working conditions for them.

Example task 6.2.

At the beginning of the reporting year, the registered number of personnel of the enterprise was 500 people. During the year, 60 people were hired, dismissed for various reasons, namely: 5 people due to admission to higher educational institutions, 3 people due to retirement, 10 people at their

own request, 15 people for violation of labor discipline. The average registered number of personnel was 520 people.

Determine: indicators of the movement of labor resources of the enterprise; draw appropriate conclusions.

Analysis of the movement of labor resources of the enterprise is presented in Table 1.18.

Table 1.18

Analysis of the movement of labor resources of the enterprise

Indicators	Result
Turnover on disposal ratio	$(5 + 3 + 10 + 15) / 520 = 0.06$
Turnover ratio by appointment	$60 / 520 = 0.12$
Turnover ratio	$(10 + 15) / 520 = 0.0481$
Total turnover ratio	$(60 + 5 + 3 + 10 + 15) / 520 = 0.18$
Staff turnover ratio	$60 / (5 + 3 + 10 + 15) = 1.8$
Staff retention ratio	$500 / 520 = 0.96$

The calculated indicators show that the enterprise has a stable staff composition with a moderate level of movement. The turnover rate upon leaving is 6.35 %, which indicates a low level of dismissals, which is acceptable for most enterprises. The turnover rate upon admission is 11.54 %, which demonstrates the enterprise's active policy of attracting new employees. The turnover rate, which is 4.81 %, indicates that dismissal at one's own request and due to violation of discipline is not a mass phenomenon. The total turnover rate is 17.88 %, which reflects the overall change in the staff composition for the reporting period. The staff renewal rate shows that new employees fully compensate for those who have left. The staff retention rate, which is 96.15 %, indicates a high level of staff retention. Overall, the indicators shows that the company maintains a stable workforce and has an effective human resources management policy, although it is worth paying attention to the reasons for layoffs to minimize them.

Example task 6.3.

Determine the number of employees in the reporting period, if it is known that output in the reporting period will increase by 15 % compared to the base period and labour productivity will increase by 5 %. The volume of marketable

products in the base period amounted to 800 thousand UAH, the number of personnel was 700 people.

Determine:

1. Labor productivity of the enterprise's personnel (baseline and reporting periods).
2. The number of employees in the reporting period.
3. Draw appropriate conclusions.

Solution:

Labor productivity (LP):

$$LP = V / N, \quad (9)$$

where V is the volume of production (works, services), UAH;

N is number of employees, people.

Production volume in the reporting period:

$$V = 800 \times (1 + 1.15) = 920 \text{ thousand UAH}$$

Labor productivity in the base period (LP_{bp}):

$$LP_{bp} = 800 / 700 = 1.143 \text{ thousand UAH / people.}$$

Labor productivity in the reporting period (LP_{rp}):

$$LP_{rp} = 1.143 \times (1 + 1.05) = 1.2 \text{ thousand UAH / people.}$$

Number of employees in the reporting period:

$$N = 920 / 1.2 = 767 \text{ people.}$$

In the reporting period, the company plans to increase production output by 15 %, which will contribute to the growth of production volumes to 920 thousand UAH. However, at the same time, an increase in labor productivity by 5 % is also forecast, which will allow for more efficient use of labor. Labor productivity per employee will increase from 1.143 thousand UAH to 1.2 thousand UAH. Given the growth in production volumes and productivity, the number of employees in the company will also increase. In the reporting period, the number of personnel will be 767 people, which is 67 people more

than in the base period. This indicates the need to increase the number of personnel to ensure the planned growth in production output, although a partial increase in productivity helps to reduce the number of additional employees.

Topic 7. Determining the state of the enterprise's logistics system

Example task 7.1.

LLC "Lumine" is engaged in the production of metal structures. The company needed to improve its logistics system.

The forecast of sales volumes of metal structures of LLC "Lumine" is presented in Table 1.19.

Table 1.19

Forecast sales volumes of Lumine LLC

Forecast	January	February	March	April	May
Metal structures, pcs	20,000	50,000	30,000	25,000	15,000
Price, UAH	10.00	10.00	10.00	10.0	10.00

The remaining stock of goods of LLC "Lumine" as of December 31 is 4000 pieces. The planned remaining stock of goods is 20 % of sales next month.

Material costs of LLC "Lumine" are presented in Table 1.20.

Table 1.20

Material costs of LLC "Lumine"

Indicator	Value	
Amount of material per unit of production	5 kg	
Planned final raw material balance	10 % of next month's needs	
Initial material stock	13,000 kg	
Material cost (per kg)	0.4 UAH	
Accounts payable as of December 31	12,000	
Money paid for material	50 % per month of sales	50 % next month

Make a production and materials purchase plan for the enterprise "Lumine" LLC for the first quarter of next year.

Solution:

The production plan is a production program that determines the planned range and volume of production of products in the budget period (in physical terms). The production volume is determined as the sales volume plus the required inventory of finished goods at the end of the period minus the inventory of finished goods at the beginning of the period. The production plan is presented in Table 1.21

Table 1.21

Production plan of LLC "Lumine", thousand pcs

Indicator	January	February	March	April
Forecasted sales volume	20.00	50.00	30.00	25.00
Planned volume at the end of the month	10.00	6.00	5.00	3.00
Total required	30.00	56.00	35.00	28.00
Volume of goods at the beginning of the month	4.00	10.00	6.00	5.00
Production volume	26.00	46.00	29.00	23.00

The cost of materials is calculated based on the production budget. To do this, it is necessary to determine the stock level of direct materials and raw materials to ensure the reliability of the enterprise's operation in the next period; the volume of purchases of raw materials and materials depends on the expected volume of their use, as well as on the expected level of stocks.

The volume of purchases is defined as the volume of use plus inventories at the end of the period minus inventories at the beginning of the period. The materials purchase plan is presented in Table 1.22.

Table 1.22

Materials procurement plan of Lumine LLC

Indicator	January	February	March	April
1	2	3	4	5
Forecasted production volume, thousand pcs	26.00	46.00	29.00	101.00
In material per unit of production, kg / pc	5	5	5	5
Production needs, thousand kg	130,000	230,000	145,000	505,000
Planned material balances at the end of the month, thousand kg	23.00	14.50	11.50	49.00

Table 1.22 (the end)

1	2	3	4	5
Total material, thousand kg	153.00	244.50	156.50	554.00
Balances at the beginning of the month, thousand kg	13.00	23.00	14.50	50.50
Volume of purchased material, thousand kg	140.00	221.50	142.00	503.50
Price per 1 kg, UAH	0.4	0.4	0.4	0.4
Purchase cost, thousand UAH	56.00	88.60	56.80	201.40

The direct materials budget shows how much raw materials and supplies are needed for production and how much raw materials and supplies must be purchased.

Example task 7.2.

Based on the data provided in the balance sheet of LLC "Winstal-Ukraine" (Appendix A) and the report on the financial results of the enterprise (Appendix B), determine the dynamics of the indicators of the costs of production of the enterprise's products, assess the efficiency of the use of material resources at LLC "Winstal-Ukraine".

Draw conclusions about the cost management system at Winstal-Ukraine LLC.

Solution:

Types of expenses:

operating expenses are expenses associated with the production and sale of products (production cost of products sold; administrative expenses; sales expenses; other operating expenses);

financial expenses are losses on interest payments (for the use of loans received, on issued bonds, on financial leases) and other expenses related to raising borrowed capital;

losses from equity participation are expenses related to losses from investments in associates, subsidiaries or joint ventures;

other expenses are expenses that arise during ordinary activities but are not related to the production and sale of products.

An analysis of operating expenses of Winstal-Ukraine LLC is presented in Table 1.23.

Table 1.23

Analysis of operating costs of Winstal-Ukraine LLC

Indicator name	For the reporting period	For the previous period	Absolute deviation, thousand UAH	Relative deviation, %
Material costs	9.211	7.302	1.909	26.14
Labor costs	17.297	12.239	5.058	41.33
Deductions for social events	3.682	2.538	1.144	45.07
Amortization	1.252	999	253	25.33
Other operating expenses	3.881	2.579	1.302	50.48
Total	35.323	25.657	9.666	37.67

Analyzing the costs of the company "Winstal-Ukraine" LLC, we note the growth of costs compared to the previous period. In general, this trend is caused by the growth of labor costs and deductions for social measures. This is due, firstly, to the indexation of wages due to changes in its minimum size, and secondly, it is caused by the hiring of new specialists. The analysis of material costs and other operating costs also shows a tendency to increase, which is associated with the growth of prices for the cost of services of the company.

General indicators of the analysis of material resources of LLC "Winstal-Ukraine" is also given in Table 1.24.

Table 1.24

Analysis of material resources of Winstal-Ukraine LLC

Indicator	For the reporting period	For the previous period	Absolute deviation, thousand UAH	Relative deviation, %
Material yield	2.87	1.08	-1.8	-62.57
Material consumption	0.35	0.93	0.58	167.18
Share of material costs in operating costs	28.46	26.08	-2.38	-8.38

Analyzing the material resources of the enterprise LLC "Winstal-Ukraine", it is necessary to note a negative trend in the efficiency of the use of resources. This is evidenced by the increase in the material consumption

indicator, which at the end of the reporting period increased by 167 % and amounted to 0.93, as well as a decrease in material efficiency by 63 %, which amounted to 1.08 at the end of the period.

To assess the efficiency of using material and operating costs of the enterprise LLC "Winstal-Ukraine", use Table 1.25.

Table 1.25

Analysis of the turnover of inventories and assets of the enterprise

Indicators	For the reporting period
Mobile assets turnover ratio, turnover	0.85
Mobile assets turnover period, days	424
The turnover ratio of tangible assets, turnover	0.98
Turnover period of tangible assets, days	368

The turnover periods of the enterprise's tangible and mobile assets are 368 and 424 days, respectively, which characterizes the enterprise as an enterprise with a significant indicator of the use of actual cash resources in the current account, which can lead to a shortage of funds and a decrease in its solvency.

Example task 7.3

The company uses 380 units of material per month, the cost of each order is 240 UAH, the cost of storing each unit of material is 14 UAH.

It is necessary to answer the following questions:

1. What is the optimal order size?
2. How many orders should be placed per month?
3. How often does each order need to be placed?

When solving, the Wilson model formula should be used.

Solution:

Wilson's model:

$$OS_b = \sqrt{\frac{2 \times R_v \times CC_p}{CC_s}}, \quad (10)$$

where OS_b is the optimal supply batch size;

R_v is the required volume of purchases of goods (raw materials) per year (quarter);

CC_p is the amount of current costs for placing an order, delivering goods and accepting them per delivery batch;

CC_s is the amount of current costs for storing a unit of inventory.

The optimal order size is calculated using Wilson's formula:

$$OS_b = \sqrt{\frac{2 \times 380 \times 240}{14}} = 114 \text{ pcs.}$$

The number of orders per month:

380 pcs / 114 pcs = 3 (orders per month).

Frequency of orders per month:

30 days / 3 times = every 10 days.

Topic 8. Development of measures to improve the efficiency of the enterprise and strengthen its market position

Example task 8.1.

JSC "Kit", having its own capital, decided to increase the volume of its economic activity by attracting borrowed capital. However, in order to obtain funds, the enterprise needs to determine its liquidity.

Data from a fragment of the balance sheet of JSC "Kit" are presented in Table 1.26.

Table 1.26

A fragment of the balance sheet of JSC "Kit", thousand UAH

Assets	Code line	At the end of the period	Liabilities	Code line	At the end of the period
1	2	3	4	5	6
I. Non-current assets			I. Equity		
Total under Section I	1095	730,000	Total under Section I	1495	1,574,920
II. Current assets			II. Long-term liabilities and provisions		
Stocks	1100	540,000	Total under Section II	1595	20,000
Current biological assets	1110		III. Current liabilities and provisions		

Table 1.26 (the end)

1	2	3	4	5	6
Accounts receivable for goods, works, services	1125	460,000	Short-term bank loans	1600	250,000
Accounts receivable by settlement:			Current accounts payable for:		
for advances issued	1130	180,000	long-term liabilities	1610	1,200
on a budget	1135	5,700	goods, works, services	1615	180,000
Other current receivables	1155	32,000	budget calculations	1620	1,900
Current financial investments	1160	54,000	insurance calculations	1625	650
Money and its equivalents	1165	17,000	payroll calculations	1630	1,300
Deferred expenses	1170	6,700	Deferred income	1665	30
Other current assets	1190	9,900	Other current liabilities	1690	5,300
Total under Section II	1195	1,305,300	Total under Section III	1695	440 380
Balance	1300	2,035,300	Balance	1900	2,035,300

It is necessary to determine:

liquidity indicators of JSC "Kit" (coverage ratio; quick liquidity ratio, absolute liquidity ratio).

Draw a conclusion regarding the solvency of the enterprise and the possibilities of raising borrowed funds to expand economic activities.

Solution:

The task is solved in two stages:

1. Analysis of the liquidity of the enterprise's balance sheet.

The balance sheet of an enterprise is considered completely liquid if the following ratios are met:

$$L1 \geq P1; L2 \geq P2; L3 \geq P3; L4 \leq P4, \quad (11)$$

where L1 is the most liquid assets;

L2 is the quickly sold assets;

L3 is the slowly sold assets;

L4 is the hard-to-sell assets;

P1 is the most urgent obligations;

P2 is the short-term liabilities;

P3 is the long-term liabilities;

P4 is the permanent (permanent) liabilities.

Failure to meet even one of the first three ratios indicates a lack of balance sheet liquidity.

To assess the liquidity of the balance sheet of JSC "Kit", use Table 1.27 and Table 1.28.

Table 1.27

Balance sheet asset liquidity analysis

Group	Formula	Solution
Most liquid assets (L1)	1160 + 1165 f. 1	54,000 + 17,000 = 71,000
Quickly sold assets (L2)	1125 + ... + 1155 f. 1	460,000 + 180,000 + 32,000 + 5,700 = = 677,700
Slowly sold assets (L3)	1100 + 1110 + 1170 + + 1190 f. 1	540,000 + 6,700 + 9,900 = 556,600
Hard-to-sell assets (L4)	1095 + 1200 f. 1	730,000

Table 1.28

Balance sheet liability liquidity analysis

Group	Formula	Solution	Payment surplus (+) or deficit (-)
Most urgent obligations (P1)	1615 f. 1	180,000	710 00 – 180 000 = = -109,000
Short-term liabilities (P2)	1695 – 1615 f. 1	440,380 – 180,000 = = 260,380	677,700 – 260,380 = = 417,320
Long-term liabilities (P3)	1595 f. 1	20,000	556,600 – 20,000 = = 536,600
Permanent (permanent) liabilities (P4)	1495 + 1700 f. 1	157 4920	730,000 – 1,574,920 = = -844,920

2. Evaluation of the company's liquidity indicators (coefficients).

To determine liquidity indicators (coefficients) JSC "Kit" use Table 1.29.

Table 1.29

Evaluation of indicators (coefficients) of liquidity of the enterprise

Liquidity indicators	Formula	Normative value	Solution
Coverage ratio	$(L1 + L2 + L3) / (P1 + P2)$	1.8 (2)	$(71\ 000 + 677\ 700 + 556\ 600) / (180\ 000 + 260\ 380) = 2.96$
Quick ratio	$(L1 + L2) / (P1 + P2)$	0.8 (1)	$(71\ 000 + 677\ 700) / (180\ 000 + 260\ 380) = 1.7$
Absolute liquidity ratio	$L1 / (P1 + P2)$	0.18 (0.2)	$71\ 000 / (180\ 000 + 260\ 380) = 0.16$

A sufficient level of liquidity is confirmed by the coverage ratio of 2.96, which exceeds the regulatory value. This indicates the ability of the enterprise to cover its current liabilities at the expense of current assets. The quick liquidity ratio at the level of 1.7 allows for timely settlement of liabilities without taking into account inventories. At the same time, the absolute liquidity ratio is 0.16, which is lower than the regulatory value. This indicates an insufficient number of the most liquid assets to immediately cover liabilities. To enhance financial stability and flexibility, the enterprise should pay attention to increasing the volume of cash and other most liquid assets.

Chapter 2

Practical tasks

Content module 1. Methodology for conducting business diagnostics of an enterprise and diagnosing financial, production and marketing aspects of entrepreneurial activity

Topic 1. Basic theoretical issues of business diagnostics of an enterprise

The goal: determining the prerequisites and necessity of conducting business diagnostics at the enterprise, identifying the reasons for resorting to diagnostic measures; substantiating the components of business diagnostics of the enterprise, forming a list of basic measures for diagnosing the state of the enterprise; determining the components of a comprehensive

business diagnostics of the enterprise based on the involvement of both internal and external consultants.

Recommended literature: main [1; 3]; additional [5; 9; 14].

**The seminar class
on the topic: "Features of conducting business diagnostics"**

The purpose of the seminar session: to expand, deepen and consolidate knowledge regarding: determining the essence of business diagnostics of an enterprise, objects of study, subject, methods, sources, content and tasks; the sequence of implementation of the business diagnostics process, its patterns and principles.

Questions:

1. The essence of business diagnostics of an enterprise. The subject, methods, sources, content and tasks of business diagnostics of an enterprise.
2. Structuring of types of business diagnostics and their features; the place of business diagnostics in the economic system of the enterprise.
3. The possibility and prerequisites for using business diagnostics at enterprises and organizations.

Guidelines for conducting the seminar class are presented in Chapter 1. Guidelines and examples of solving practical problems are given in Chapter 1.

Task 1.1 (test).

1. Which method is best suited for studying the relationship between two variables:

- a) regression analysis;
- b) horizontal analysis;
- c) solvency analysis?

2. Economic diagnostics is:

- a) analysis of the financial results of the enterprise;
- b) a system for evaluating the performance of the enterprise;
- c) a comprehensive study of the state of the enterprise.

3. Monitoring is:

- a) a method which involves comparing interdependent indicators of economic activity in order to clarify and measure their mutual influence,

as well as determine reserves for increasing production efficiency and identifying "bottlenecks" in solving individual issues;

b) a method which allows you to identify and structure the strengths and weaknesses of the enterprise, existing threats, unused opportunities; to form the problem area of the enterprise;

c) a method which makes it possible to characterize one phenomenon through another, allows you to evaluate the performance of the enterprise, identify deviations from planned indicators, establish their causes and identify reserves;

d) constant, systematic, detailed, ongoing control of the financial and economic condition of the enterprise;

e) a method by which the characteristics of a specific object and a reference, better one are compared.

4. Depending on the entities implementing business diagnostics, it is divided into:

a) internal and external diagnostics;

b) quantitative and qualitative diagnostics;

c) dynamic and static diagnostics;

d) comprehensive and systemic diagnostics.

5. Sources of information for economic diagnostics include:

a) production processes;

b) financial statements;

c) marketing strategies.

6. Match the type of diagnosis with its definition:

Type of diagnostics	Definition
1. Express diagnostics. 2. Comprehensive diagnostics	a) detailed analytical research that provides a deep understanding of the current situation and serves as the basis for developing both a transformation strategy in the areas of activity considered and a list of specific measures to achieve the planned results; b) a brief study of various aspects of the enterprise's activities in order to identify problem areas and obtain preliminary assessments of the current state

7. In a SWOT analysis, external factors include:

- a) strengths and weaknesses;
- b) opportunities and threats;
- c) the profitability of the enterprise?

8. What are the main stages of economic diagnostics:

- a) formulation of the problem, collection of information, analysis;
- b) planning, control, and evaluation of activities;
- c) preparation of a balance sheet, audit, tax reporting?

9. What method allows you to assess the dynamics of indicators over time:

- a) horizontal analysis;
- b) vertical analysis;
- c) factor analysis?

10. Non-accounting sources of information include:

- a) information about economic activity;
- b) accounting statements;
- c) statement of equity;
- d) official documents of the Government and the President of Ukraine?

11. The internal environment of the enterprise includes:

- a) inflation rate;
- b) organizational structure;
- c) state tax policy?

12. Business diagnostics is focused on:

- a) enterprise management;
- b) knowledge of economic phenomena;
- c) business activity of the enterprise;
- d) the financial stability of the enterprise?

13. What is the purpose of using matrix methods of economic diagnostics:

- a) assessment of employee performance;
- b) formation of enterprise development strategies;
- c) control over budget execution?

14. What factors belong to economic risks in business diagnostics:

- a) change in tax levels;
- b) low staff motivation;
- c) innovative activity?

15. What method allows you to compare a company's performance with industry standards:

- a) benchmarking;
- b) vertical analysis;
- c) margin analysis?

16. What is the basis for strategic diagnostics:

- a) assessment of internal and external factors;
- b) monitoring of financial indicators;
- c) cost planning?

17. What is the role of SWOT analysis in business diagnostics:

- a) determination of development prospects;
- b) assessment of the profitability of the enterprise;
- c) analysis of the internal environment?

18. What is the key goal of developing a diagnostic model:

- a) minimization of operating costs;
- b) optimization of business processes;
- c) identifying weaknesses and areas for improvement?

19. Which method is used to assess the strategic position of an enterprise:

- a) BCG matrix;
- b) horizontal analysis;
- c) regression analysis?

20. What does the analysis of the internal environment include:

- a) study of macroeconomic factors;
- b) assessment of human resources potential;
- c) monitoring competitors?

21. What is the main object of business diagnostics:

- a) investment projects;
- b) economic activity of the enterprise;
- c) public policy?

Topic 2. Diagnostics of strategic planning and operational management at the enterprise

The goal: determining the features of strategic planning, the mechanism and methods of developing strategic plans at the enterprise. Choosing methods of planning, preparing and organizing operational management of the functional areas of the enterprise. Analysis and collection of information on strategic planning and operational management at the enterprise.

Recommended reading: main [1; 2; 3]; additional [4; 8; 11].

Task 2.1 (test).

1. Which factor influences strategic planning:

- a) change in legislation;
- b) staff turnover;
- c) the quantity of finished goods in stock?

2. What is the significance of the McKinsey matrix for strategic planning:

- a) determination of break-even points;
- b) analysis of market attractiveness and competitive position;
- c) assessment of solvency?

3. Which method involves prioritizing tasks:

- a) Pareto method;
- b) vertical analysis;
- c) regression analysis?

4. What types of strategic control exist:

- a) current, preventive, final;
- b) production, financial, marketing;
- c) external, internal?

5. What is an operating cycle in the context of operational management:
- a) the time from receipt of raw materials to sale of finished products;
 - b) strategy implementation period;
 - c) budget formation phase?
6. Which of the approaches is the basis for forming a corporate strategy:
- a) resource approach;
 - b) cost analysis;
 - c) regression analysis method?
7. What does the concept of strategic gap mean:
- a) the difference between planned and actual indicators;
 - b) lack of financial resources;
 - c) loss of a key supplier?
8. What is strategic recruitment:
- a) a set of financial planning tools;
 - b) a combination of strategies to achieve the enterprise's mission;
 - c) the totality of production capacities?
9. What is the basis for operational planning:
- a) budgets and schedules;
 - b) general development strategies;
 - c) financial statements for the past year?
10. What method allows you to assess the impact of environmental changes on strategy:
- a) PESTEL analysis;
 - b) horizontal analysis;
 - c) SWOT analysis?
11. What is strategic control:
- a) assessment of the financial condition of the enterprise;
 - b) monitoring compliance of actions with the strategic plan;
 - c) distribution of resources between departments;
 - d) analysis of the effectiveness of personnel use?

Task 2.2.

Fill out and analyze the company summary analytical report using the following form.

Analytical summary of the company:

1. Name of the company.
2. Location of the enterprise.
3. Start of activities.
4. Organizational and legal form of business.
5. Information about the founders and subsidiaries.
6. Information about branches (if any).
7. Statutory fund and its distribution among the founders.
8. Governing body.
9. Types of activities.
10. Number of employees.

For an analytical summary of the enterprise, use Table 2.1.

Table 2.1

Analytical summary of the company

No. of the company	Component name	Information
1	Company name	
2	Company location	
3	Start of operations	
4	Organizational and legal form of business	
5	Information about the founders and subsidiaries	
6	Branch information (if any)	
7	Statutory fund and its distribution among the founders	
8	Governing body	
9	Types of activities	
10	Number of employees	

Task 2.3.

Describe the goals of the enterprise (specific results that the enterprise seeks to achieve in its activities, focus on implementing the mission and strategic vision, determining the direction of development, coordinating the actions of the enterprise's employees and the basis for making management decisions). The results should be presented in the form of Table 2.2.

Table 2.2

Enterprise goals

Main goals	Characteristic	Mechanisms that contribute to the achievement of set goals
Economic		
Environmental		
Social		
Nationwide		

Task 2.4.

LLC "Mriya" is a manufacturer of pharmaceutical products. The enterprise has the following forecast indicators of its economic activity for January 2025:

the purchase of production inventories is planned for the amount of 80,000 UAH, of which only 50 % of the cost will be paid in cash by January 1, 2025;

the remaining components in the warehouse at the end of the month will be 3,000 UAH;

the sale of finished products will be made for the amount of UAH 300,000 UAH (excluding VAT), of which 85 % will be paid in cash by January 1, 2025;

the planned gross expenses will be: depreciation: 350 UAH, rent paid at the end of last year for a year in advance and included in expenses every month, administrative expenses: 3,750 UAH (payments after January 1, 2025);

the income tax in the planning period will be 650 UAH, the amount of net profit will be 15,000 UAH. Existing accounts payable, accrued liabilities, and debts to the budget are repaid within a month. Debtors repay their debts by half during the month. The balance at the beginning of the month is presented in Table 2.3.

Table 2.3

Opening balance of the enterprise, UAH

Assets	Jan. 1, 2025	Liabilities	Jan. 1, 2025
1	2	3	4
Fixed assets		Equity	
Initial cost	21,295	Authorized capital	19,500
Accumulated depreciation	1,210	Retained earnings	8,242

Table 2.3 (the end)

1	2	3	4
Residual value	20,085	Long-term debts	
Working capital		Long-term bank loan	13,000
Funds	14,560	Short-term debts	
Accounts receivable	31,200	Accounts payable	22,100
Goods and materials	3,510	Accrued liabilities	13,780
Renting premises	7,800	Bank loan	
Total assets	77,155	Income tax arrears	533
		Liabilities, total	77,155

Prepare a forecast report on the profit of the enterprise LLC "Mriya", a forecast of the enterprise's cash account, a planned balance sheet of LLC "Mriya" as of January 31, 2025. Assess the need and volume (size) of an additional short-term loan based on the results of the enterprise's planned activities.

To prepare the planned balance sheet of LLC "Mriya", use Tables 2.4 – 2.6.

Table 2.4

Forecast report on the company's profit, UAH

Indicator	Value
Net profit	
Production cost:	
Material costs	
Payment for direct labor	
Manufacturing overhead costs	
Rent	
Amortization	
Gross income	
Administrative costs	
Marketing expenses	
Operating profit	
Interest payments	
Financial result before tax	
Income tax	
Net profit	

Table 2.5

Forecast of the company's cash account, UAH

Indicator	Value
Opening balance	
Repayment of accounts receivable last month	
Cash receipts from sales	
Cash costs due to the purchase of components	
Payment of production personnel	
Payment of production overhead costs	
Payment of administrative costs	
Repayment of accounts payable last month	
Interest payments	
Repayment of accrued liabilities last month	
Payments of tax arrears	
Final balance	

Table 2.6

Forecast balance of the enterprise, UAH

Assets	Jan. 1, 2025	Jan. 31, 2025
Fixed assets		
Initial cost		
Accumulated depreciation		
Residual value		
Current assets		
Funds		
Accounts receivable		
Goods and materials		
Prepaid rent of premises		
Total assets		
Liabilities		
Equity		
Authorized capital		
Retained earnings		
Long-term debts		
Long-term bank loan		
Short-term debts		
Accounts payable		
Accrued liabilities		
Bank loan		
Income tax arrears		
Liabilities, total		

Topic 3. Analysis of the financial condition of the enterprise

The goal: justification of the structure of the analysis of the financial condition of the enterprise, formation of sources of information for conducting financial analysis of the enterprise taking into account their characteristics, evaluation of the system of indicators and coefficients of the analysis of the financial condition of the enterprise, as well as algorithms for calculation of indicators.

Recommended literature: main [2; 3]; additional [6; 7; 10].

Task 3.1 (test).

1. What is the main purpose of financial analysis of an enterprise:

- a) increasing labor productivity;
- b) assessment of financial condition and performance;
- c) increase in sales volumes?

2. Establish a correspondence between the main methods of obtaining information and their characteristics:

Method of obtaining information	Method characteristics
1. Desk research. 2. Self-diagnosis. 3. Diagnostic interview. 4. Diagnostic observation.	a) assessment, by employees selected by the head of the enterprise of the state, of various systems and subsystems of the enterprise for compliance with the set goals and objectives, the availability of necessary resources, using various methods and procedures; b) familiarization with the external manifestations of the enterprise's activities, the work of employees in offices, at production, attendance of meetings, presentations, etc.; c) work with accounting documents, statistical and other internal information; d) conversations with managers and specialists of the enterprise, experts about their understanding of problems and ways to solve them, questionnaires of enterprise employees

3. Express diagnostics is:

a) construction and analysis of a system of interrelated indicators that characterize the efficiency of the enterprise's activities from the point of view of its compliance with operational business goals;

b) construction and analysis of a system of interrelated indicators that characterize the effectiveness of financial activities from the point of view of its compliance with the strategic goals of the business;

c) ongoing analytical activities and control of a limited number of indicators that characterize the results of activities, in order to promptly identify shortcomings and determine negative trends in the deterioration of the enterprise's operational efficiency.

4. What is the autonomy coefficient:

- a) the ratio of current assets to liabilities;
- b) the share of equity in the structure of the enterprise resources;
- c) the ratio of profit to sales?

5. Which report is the main source of information for profitability analysis:

- a) a balance sheet;
- b) a report of financial results;
- c) a cash flow statement?

6. What is the solvency of an enterprise:

- a) the ability to attract new customers;
- b) the ability to meet its short-term obligations;
- c) the ability to optimize costs?

7. How is the financial stability ratio calculated:

- a) equity / total assets;
- b) net profit / current assets;
- c) accounts receivable accounts payable?

8. What does the cash flow statement reflect:

- a) composition of assets and liabilities;
- b) cash flows from operating, investing and financing activities;
- c) the level of profitability?

9. The total liquidity ratio characterizes:

- a) the ability of the enterprise to meet short-term obligations at the expense of the more liquid part of current assets;
- b) the ability of the enterprise to fulfill short-term obligations at the expense of free funds and short-term financial investments;
- c) the ability of the enterprise to meet short-term obligations at the expense of all current assets?

10. What is the business activity of an enterprise:
- a) the level of attraction of new investors;
 - b) the intensity of resource use to generate income;
 - c) the ability to repay long-term liabilities?
11. What is a component of the financial stability of an enterprise:
- a) the level of technological development;
 - b) the ratio of equity and debt capital;
 - c) the quality of personnel management?
12. What is financial leverage:
- a) increasing profitability through the use of borrowed capital;
 - b) cost management method;
 - c) a way to increase liquidity?
13. What is the financial independence ratio:
- a) the ratio of equity to total assets;
 - b) the ratio of liabilities to income;
 - c) percentage of net profit?
14. What reporting form is used for liquidity analysis:
- a) a balance sheet;
 - b) a cash flow statement;
 - c) a financial performance report?
15. What is the basis for determining the debt ratio of an enterprise:
- a) the ratio of equity to liabilities;
 - b) the ratio of liabilities to assets;
 - c) the ratio of income to expenses?

Task 3.2.

Using the financial statements of the PE "Space" (Tables 2.7 and 2.8), determine the profitability indicators of the enterprise.

Table 2.7

A fragment of the balance sheet of the PE "Space", thousand UAH

Indicators		Value	
	Code line	at the beginning of the period, thousand UAH	at the end of the period, thousand UAH
Assets			
I. Non-current assets			
Total under Section I	1095	96,098.8	98,393.4
II. Current assets			
Total under Section II	1195	187,967.8	213,805.2
Balance	1300	284,066.60	312,198.60
Liabilities			
I. Equity			
Total under Section I	1495	68,707.8	81,201.6
II. Long-term liabilities			
Total under Section II	1595	1,395.54	802.66
III. Current liabilities and provisions			
Total under Section III	1695	191,963.26	191,194.34
Balance	1900	284,066.60	312,198.60

Table 2.8

A fragment of the report on the financial results of the PE "Space", thousand UAH

Article	For the reporting period
Net income (revenue) from the sale of products (goods, works, services)	200,000
Cost of goods sold (goods, works, services)	120,000
Gross:	
profit	80,000
Financial results from operating activities:	
profit	70,000
Net financial result:	
profit	50,500

It is necessary to determine: profitability on operating income; profitability on fixed assets; profitability on equity. Draw a conclusion on the efficiency of the enterprise's functioning.

Task 3.3.

Table 2.9 shows the performance of two competing enterprises. It is necessary to determine the financial strength margin of each enterprise.

Table 2.9

Financial performance indicators of competing enterprises

Indicators	Company A	Enterprise B
Sales revenue, thousand UAH	38,000	279,000
Variable costs, thousand UAH	20,946	15,454
Fixed costs, thousand UAH	9,454	8,525

Determine which of the two companies will be resilient in the face of an economic downturn and reduced sales.

Task 3.4.

The wholesale price of the enterprise LLC "Krok" is 12.0 UAH per unit of production, and the conditional variable costs per unit of production are 5.75 UAH. At the same time, in the reporting period, with a sales volume of 254,000 units of production, the enterprise receives a profit of 453.3 thousand UAH. In the planning period, the structure of the enterprise's costs will not change.

Determine the break-even point parameters for Krot LLC and its financial strength margin based on the following data.

Task 3.5.

Taking into account general requirements for financial reporting, prepare a report on financial results (a report on comprehensive income) of the enterprise LLC "Bookstore", if it is known that during the reporting period it achieved the following financial and economic indicators, thousand UAH: direct material costs make 50,000; direct costs for the remuneration of production personnel are 10,500; depreciation of production assets are 500; interest payment expenses are 1,000; sales revenue with VAT are 100,000; income from the sale of the enterprise office premises are 30,000; administrative expenses are 1,000, sales expenses are 1,500.

To form a report on the financial results of the enterprise, use Table 2.10.

Table 2.10

Statement of financial results (Statement of comprehensive income)

Article	Code line	For the reporting period
Net income from sales of products (goods, services)	2000	
Cost of sales (goods, services)	2050	
Gross: profit	2090	
loss	2095	
Other operating income	2120	
Administrative costs	2130	
Selling expenses	2150	
Other operating expenses	2180	
Financial result from operating activities: profit	2190	
loss	2195	
Income from capital participation	2200	
Other financial income	2220	
Other income	2240	
Financial costs	2250	
Losses from participation in capital	2255	
Other expenses	2270	
Financial result before tax: profit	2290	
loss	2295	
Income tax expenses (income)	2300	
Net financial result: profit	2350	
loss	2355	

Topic 4. Determining the efficiency of the production and technological system of an enterprise

The goal: determining the essence of the enterprise's production and technological system, methods for assessing the cost and efficiency of using the enterprise's production and technological base, as well as substantiating measures to increase the efficiency of using the enterprise's fixed assets, determining the level of technological support.

Recommended literature: main [1; 3]; additional [8; 10; 13].

Task 4.1.

Based on the data in Table 2.11 on the activities of the upholstered furniture company "Platan", conduct an analysis of the efficiency of the use of fixed assets of the enterprise. Fill in Table 2.11 and draw a conclusion regarding the efficiency of the enterprise's functioning.

Table 2.11

Output data

Indicators	Year 1	Year 2	Deviation, %	Growth
Revenue from product sales, thousand UAH	60,000	65,000		
annual cost of fixed assets, thousand UAH	73,000	75,000		
Return on investment, UAH / UAH				
Capital intensity, UAH / UAH				

Task 4.2.

Based on the data in the table on the activities of the printing company "Aston", conduct diagnostics of the efficiency of the use of fixed assets of the enterprise. Fill in Table 2.12.

Table 2.12

Output data

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	35,000	38,000		
2	Annual cost of fixed assets, thousand rubles	17,100	18,300		
3	Cost of machinery and equipment, thousand UAH	5,200	7,150		
4	Return on fixed assets, UAH / UAH				
5	Return on assets of the active part of fixed assets, UAH / UAH				
6	Capital intensity, UAH / UAH				
7	Ratio of fixed assets growth per 1 % of output growth				

Identify the following indicators and describe them:
return on capital of fixed assets and their active part;

capital intensity;
deviation and growth in revenue, average annual cost of fixed assets,
return on assets and capital intensity;
ratio of growth in fixed assets per 1 % of output growth;
relative savings (overspending) of fixed assets.

Task 4.3.

Based on the data in the table on the activities of the upholstered furniture production enterprise "Platan", conduct an analysis of the efficiency of the use of fixed assets of the enterprise. Fill in Table 2.13.

Table 2.13

Output data

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	60,000	65,000		
2	Average annual cost of fixed assets , thousand UAH	73,000	75,000		
3	Return on investment, UAH / UAH				
4	Capital intensity, UAH / UAH				
5	Correlation increase in fixed assets calculated per 1 % of production growth				

Determine the following indicators:
capital intensity;
return on investment;
deviation and growth in revenue, average annual cost of fixed assets,
return on assets and capital intensity;
ratio of growth in fixed assets per 1 % of output growth;
relative savings (overspending) of fixed assets.

Task 4.4.

Using the data in Table 2.14, determine the indicators of efficiency and condition of fixed assets of the enterprise LLC "Vivat", namely: depreciation coefficient, suitability coefficient, return on assets, capital intensity, profitability of fixed assets.

Table 2.14

Data on the use and technical condition of fixed assets

Indicators	Previous period	Reporting period
Volume of commercial products, thousand UAH	18,500	25,000
Average annual cost of fixed assets, thousand UAH	13,450	15,350
Operating profit, thousand UAH	5,650	10,300
Original cost of fixed assets, thousand UAH	20,500	25,800
Residual value of fixed assets, thousand UAH	18,300	21,400

It is necessary to determine:

indicators of efficiency and condition of fixed assets of the enterprise;
draw a conclusion about the technical condition of the enterprise.

Task 4.5.

The private joint stock company "Sakhnovshchynske named after M. O. Klyuchka" is located in the territory of the Krasnohrad district of the Kharkiv region, in the village of Suharivske. The PJSC "Sakhnovshchynske named after M. O. Klyuchka" was established in 1996. The main activities of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" are the cultivation of grain, leguminous crops and oilseeds, the cultivation of vegetables and melons, root and tuber crops and other annual and biennial crops, the breeding of pigs, dairy cattle, buffaloes, horses, sheep, goats and other animals, auxiliary activities in crop production, auxiliary activities in animal husbandry, post-harvest activities and seed processing for reproduction. Based on the data provided in the financial statements of the PJSC "Sakhnovshchynske named after M. O. Klyuchka", namely: the balance sheet of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (Appendix C) and the report on the financial results of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (Appendix D) determine the indicators of efficiency and the state of fixed assets of the enterprise; the property condition of the enterprise using the provided tables and indicators of the assessment of the property condition. Draw conclusions. To assess the property condition of the PJSC "Sakhnovshchynske named after M. O. Klyuchka", use Tables 2.15 and 2.16.

Table 2.15

General assessment of the value of the company's property

Indicators	At the beginning of the year	At the end of the year	Absolute deviation
Total property			
Including:			
fixed assets			
% to property			
working capital			
% to property			
Of which:			
tangible working capital			
% to working capital			
cash and cash equivalents			
% to working capital			

Table 2.16

Assessment of the composition of the company's assets according to structural components

Structural components of the enterprise's property	At the beginning of the year		At the end of the year		Absolute deviation	
	sum	share, %	sum,	share, %	by the amount	by share
Total property						
Including:						
fixed assets						
mobile (working) funds						

Topic 5. Diagnostics of the enterprise's marketing system

The goal: definition of the concept of the marketing system of an enterprise, the structure of the marketing system and its functions. Selection of a quantitative approach to assessing the effectiveness of the marketing activities of an enterprise, analysis of the methodology for qualitative assessment of the marketing activities of an enterprise and determination of the level of the enterprise marketing potential.

Recommended literature: main [1; 2; 3]; additional [5; 9; 11].

Task 5.1.

Analyze the competitive environment of dairy production enterprises in a certain region (Kharkiv, Kyiv, Lviv, Poltava or other region) and answer the following questions:

What market structure does the dairy market belong to?

How have the industry's product characteristics changed?

How has the structure of industry participants changed?

Are there any barriers to entry into the dairy industry? If so, what are they?

What role does innovation play for competing enterprises?

Task 5.2.

Conduct diagnostics of a certain industry (bakery, dairy products, confectionery, etc.) using the M. Porter method. Perform diagnostic procedures in the following sequence:

Industry profile, its general characteristics.

Assessment of the driving forces of industry development.

Assessment of competitive forces.

Diagnostics of competitive positions of rival enterprises.

Analysis of closest competitors.

Identification and evaluation of leading success factors.

Industry development prospects.

Task 5.3.

The enterprise LLC "Ukrkom" is engaged in the production of windows. The planned and actual indicators of revenue from the sale of the enterprise's products are presented in Table 2.17.

Table 2.17

Planned revenue of Ukrcom LLC, thousand UAH

Period	Planned revenue
1	2
January	2,425
February	2,390
March	2,495
April	2,535
May	2,560
June	2,625

Table 2.17 (the end)

1	2
July	
August	
September	
October	
November	
December	

Determine, using the moving average method, the expected (planned) amount of revenue from the sale of products of Ukrcom LLC for the third and fourth quarters of the current year.

Task 5.4.

According to the data presented in Table 2.18, determine the current level of competitiveness of the enterprise according to the "polygon" (taking into account the importance of indicators – determine independently) and evaluate it in the future, taking into account the following changes.

Table 2.18

Initial data for assessing the competitiveness of goods

Product competitiveness indicator	Absolute values of indicators		
	according to the standard	for a product from another manufacturer	for the product being valued
Integral indicator of product quality for the standard service life (10 years), unit of useful effect	15,500	16,400	14,000
Product price, UAH	900	950	820
Integral indicator of service quality for consumers of the product, unit shares	1.0	0.98	0.9
Costs of operating the product for 10 years, UAH	5,000	4,750	7,200

The enterprise plans to use new materials in production to bring the beneficial effect of consuming its product to the standard level and reduce the consumer's operating costs by 15 %. Draw conclusions.

Task 5.5.

The company ADAMANT LLC plans to sell three types of goods. The planned indicators are given in Table 2.19.

Table 2.19

Initial data for calculations

No.	Indicators	Unit of measurement	Goods		
			A	B	C
1	Average variable costs	UAH / pc	15.0	16.3	15.1
2	Fixed costs	UAH	980,000		
3	Product profitability	%	32.0	33.0	35.0
4	Sales volume	thousand pcs	15.0	12.0	25.0

Determine, at what price the company ADAMANT LLC should sell these goods.

Task 5.6.

Based on the data given in Table 2.20, assess the competitiveness of domestically produced machine tools. Draw a conclusion about the directions for increasing the competitiveness of each of them.

Table 2.20

Initial data for calculations

Machine parameters	Model, manufacturer					Indicator weight
	B-20, Korea	G-51, Romania	G-52, Romania	K-40, Ukraine	K-35, Ukraine	
Spindle travel, mm	1 250	1 320	1 580	1 560	1 525	0.2
Engine power, kW	3	4.1	4	5.5	5.5	0.15
Number of speed stages	12	18	18	24	24	0.2
Number of pitches	8	8	8	24	24	0.3
Machine weight, kg	3 800	3 550	4 000	4 000	4 170	0.15
Machine price, UAH	650,000	750,000	780,000	790,000	620,000	–

Task 5.7.

In the market of confectionery manufacturers in Ukraine, 15 confectionery factories are the leaders. The main rivalry is between them. According to the data in Table 2.21: calculate the concentration index and estimate the level of concentration in the industry; calculate the Herfindahl-Hirschman index and estimate the level of market power in the industry.

Table 2.21

Initial data for calculations

Leading confectionery manufacturers		
No.	Manufacturer	Production volume, t
1	Vinnytsia CF	40 990
2	Svitoch, Lviv	38 648
3	K. Marx Foundation, Kyiv	31 156
4	Mariupol CF	26 664
5	Kharkiv Biscuit Factory	24 270
6	Dnipropetrovsk CF	23 943
7	Kremenchuk CF	23 495
8	Kyiv-Konti, Donetsk	21 674
9	A.V.K., Donetsk	19 614
10	Trostryanetska CF	17 925
11	A.V.K, Luhansk	17 116
12	Poltavakondyter	15 971
13	KF "Odesa", Odessa	15 615
14	Zhytomyr delicacies	12 673
15	Zaporizhzhia CF	11 730

Task 5.8.

Based on the data indicated in Table 2.22, evaluate the competitiveness of machine tool models A, B, C, D, E.

Table 2.22

Initial data for calculations

Machine parameters	Model					Indicator weight
	A	B	C	D	E	
1	2	3	4	5	6	7
Spindle travel, mm	2 010	1 820	1 470	1 550	1 230	0.30

Table 2.22 (the end)

1	2	3	4	5	6	7
Engine power, kW	2.9	3.8	4	5.1	5.3	0.15
Number of speed stages	17	21	24	24	28	0.2
Number of pitches	10	9	8	13	16	0.1
Machine weight, kg	4 700	3 640	3 150	4 400	5 200	0.25
Machine price, thousand UAH	5,200	6,400	4,800	6,100	6,000	–

Draw a conclusion about the directions for increasing the competitiveness of each of them.

Task 5.9.

Planned and actual indicators of revenue from sales of products of the enterprise LLC "Spets" are presented in Table 2.23. The smoothing factor is set at 0.16.

Table 2.23

Revenue from sales of "Spets" products

Period	Planned revenue, thousand UAH	Actual revenue, thousand UAH
January	1,325.0	1,198.5
February	1,290.0	1,235.8
March	1,395.0	1,241.8
April	1,435.0	1,445.2
May	1,460.0	1,451.5
June	1,525.0	1,535.4
July		
August		
September		
October		
November		
December		

Determine, using the exponential smoothing method, the expected (planned) amount of revenue from the sale of products by Spets LLC for the third and fourth quarters of the current year.

Task 5.10.

According to the data in Table 2.24, compare the technical and economic parameters of two microwave ovens. Calculate the individual, group and integral indicators of competitiveness. Which of the products is more competitive? Justify the answer.

Table 2.24

Initial data for calculations

Indicators	Ware		Basic product
	SAMSUNG	LG	
Technical:			
chamber volume, dm ³	20	22	22
service life, years	18	20	20
net weight, kg	16	14	13
power, W	1 400	1 500	1 550
design, points	6	7	8
warranty period, years	3	4	4
Economic, UAH:			
retail price	6 800	8 300	7 000
shipping cost	80	100	80
repair costs	1 500	1 000	1 000
electricity costs	300	250	250

How can you increase the competitiveness of each product without changing their technical parameters?

Task 5.11.

According to the data in Table 2.25, compare the technical and economic parameters of two household appliances – refrigerators. Calculate the individual, group and integral indicators of competitiveness. Which of the products is more competitive? Justify the answer.

Table 2.25

Initial data for calculations

Indicators	Ware		Basic product
	North	Ardo	
Technical:			
chamber volume, l	220	240	240
Service life, years	17	15	18
energy consumption, kWh / year	230	200	210
design, points	7	6	20
warranty period, years	2	3	8
Economic, thousand UAH:			
retail price	25	30	26
shipping cost	1	1,5	1,5
electricity costs	10	8	9

How can you increase the competitiveness of each product without changing their technical parameters?

Content module 2. Diagnosing human resource management and developing recommendations based on the results of comprehensive diagnostics

Topic 6. Analysis of the personnel management system

The goal: definition of the enterprise's personnel management system, principles and methods of building a personnel management system. Analysis of the enterprise's motivation system and assessment of the quality of the workforce. Substantiation of indicators of the effectiveness of personnel management and workforce movement, assessment of the innovative potential of the enterprise's employees.

Recommended literature: main [1; 3]; additional [5; 9; 14].

Task 6.1.

Revenue from sales of products of the machine-building enterprise "Atlant" in the base year amounted to 78 000 thousand UAH. In the reporting period it was 89 000 thousand UAH. The number of production personnel in the base

year was 420 people, in the reporting year it amounted to 442 people. The payroll fund for production personnel in the base year was 8 000 thousand UAH, in the reporting year it amounted to 8 100 thousand UAH.

Conduct diagnostics of the efficiency of using the enterprise's human resources and the state of spending the payroll fund. Determine:

indicators of output per employee, to track their dynamics in the analyzed period;

the ratio of staff growth per 1 % of production growth;

relative savings (overspending) of labor resources;

relative savings in the payroll.

Task 6.2.

At the enterprise PJSC "Sakhnovshchynske named after M. O. Klyuchka" according to the staffing list, 56 people work. During the studied period, the staff composition is being updated. Agriculture is the first branch of material production in terms of employment of labor resources.

Using the data in Tables 2.26 – 2.28, determine the efficiency indicators, indicators of the movement of the enterprise's labor resources, and evaluate labor costs.

Table 2.26

The composition of the company's personnel, people

Personnel categories	Previous period	Reporting period
Industrial and production personnel	77	54
including:		
workers	62	43
leaders	5	5
specialists	9	5
employees	1	1
Non-industrial personnel	3	2
Total staff	80	56

Table 2.27

Analysis of labor movement indicators at the enterprise

Indicator	Previous period	Reporting period	Deviation	
			Absolute	Relative, %
Number of employees at the beginning of the period	80	49		
Employees, people accepted	30	30		
Total number of employees who left, including:	61	38		
employees who left voluntarily, were dismissed for absenteeism and other violations of labor discipline, irresponsibility for the position held, people	61	38		
Employees who left due to staff reductions, people	–	–		
Number of employees at the end of the period	49	41		
Average number of employees, people	80	56		
Reception workforce turnover rate				
Labor turnover rate due to attrition				
Total labor turnover ratio				
Employee turnover rate				

Table 2.28

Analysis of labor efficiency at the enterprise

Indicator	Previous period	Reporting period	Deviation	
			Absolute	Relative, %
1	2	3	4	5
Commodity products, thousand UAH	32,989	46,992		
Commodity products, tons	10,862.94	8,689.49		
Average number of personnel, people	80	56		
including: industrial and production personnel	77	54		
workers	62	43		

Table 2.28 (the end)

1	2	3	4	5
Annual labor productivity, thousand UAH / person: one employee				
one worker industrial and production personnel				
one worker				
Annual labor productivity, t / person: one worker				
one worker industrial and production personnel				
one worker				
Payroll fund, thousand UAH	10,753	11,239		
Average annual salary, thousand UAH / person				

Task 6.3.

The Kolos Bread Factory is a modern enterprise with automated production. Based on the data in Table 2.29, conduct a diagnosis of the efficiency of using the enterprise's human resources.

Table 2.29

Initial data for calculations

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	27,500	33,400		
2	Average number of employees, people	117	1265		
3	Workers' compensation fund, thousand UAH	1,410	2,600		
4	Output per worker, thousand UAH				
5	Volume of production per 1 UAH of wages, UAH				
6	Ratio of increase in the number of workers per 1 % of output growth				

Determine the following indicators:

output per worker;

volume of production per 1 UAH of labor payment;

deviation and increase in revenue, number of workers, output per worker, workers' payroll, volume of output per UAH of wages;

ratio of the increase in the number of workers per 1 % of the increase in production;

relative savings (overspending) of workers;
relative savings (overspending) of the payroll fund.

Task 6.4.

Conduct diagnostics of the efficiency of using labor resources at the leather goods enterprise "Podolianka" based on the data in Table 2.30. Fill in the table.

Table 2.30

Initial data for calculations

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	45,300	48,800		
2	Number of production personnel, people	165	240		
3	Production personnel payroll fund, thousand UAH	1,100	1,200		
4	Output per employee, thousand UAH				
5	Volume of production per 1 UAH of labor cost				
6	Ratio of increase in the number of employees per 1% of output growth				

Determine the following indicators:

output per employee;

volume of production per 1 UAH of labor payment;

deviation and increase in revenue, number of production personnel, payroll of production personnel, production volume per 1 UAH of labor remuneration;

ratio of the increase in the number of employees per 1 % of the increase in output;

relative savings (overspending) of production personnel;

relative savings (overspending) of the payroll fund.

Topic 7. Determining the state of the enterprise's logistics system

The goal: Definition of logistics, types of logistics systems and principles of its formation at the enterprise. Analysis of the average stock in the warehouse and the share of stocks in circulation, logistics costs per unit of turnover,

assessment of turnover parameters, readiness for delivery, costs of tied capital. Definition of the discipline of supplies and warehouse work.

Recommended reading: main [1; 2; 3]; additional [4; 9; 12].

Task 7.1.

The confectionery factory received revenue from sales of products in the base year in the amount of 29,000 thousand UAH, in the reporting year in the amount of 32,000 thousand UAH. Material costs in the base year amounted to 20,400 thousand UAH, in the reporting year they were 22,800 thousand UAH.

Conduct diagnostics of the state of efficiency of use of material resources at the enterprise. Calculate:

the level of material consumption and material efficiency of the enterprise, to track the dynamics of these indicators;

the ratio of increase in material costs per 1 % of production increase:

relative savings (overspending) of material resources.

Task 7.2.

Based on the data in Table 2.31 on the activities of the paint and varnish enterprise "Ester", conduct diagnostics of the efficiency of using the enterprise's material resources.

Table 2.31

Initial data for calculations

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	85,000	87,000		
2	Material costs (MC), thousand UAH	49,000	56,000		
3	Material yield, UAH / UAH				
4	Material consumption, UAH / UAH				
5	The ratio of the increase in relative spending calculated per 1 % of production growth				

Determine the following indicators:

material consumption;

material yield;

deviations and increases in sales revenue, material costs, material efficiency and material consumption;

the ratio of increase in material costs (MC) per 1 % of production increase; relative savings (overspending).

Task 7.3.

Based on the data in Table 2.32 on the activities of the company producing electrical appliances "Lux", conduct diagnostics of the efficiency of using the company's material resources.

Table 2.32

Initial data for calculations

No.	Indicators	Year 1	Year 2	Deviation, %	Growth
1	Revenue from product sales, thousand UAH	65,000	67,000		
2	Material costs (MC), thousand UAH	39,000	46,000		
3	Material yield, UAH / UAH				
4	Material consumption, UAH / UAH				
5	The ratio of the increase in relative spending calculated per 1 % of production growth				

Determine the following indicators: material consumption; material efficiency; deviation and increase in sales revenue, material costs, material efficiency and material consumption; ratio of increase in material costs (MC) per 1 % of production growth; relative savings (overspending) of MC.

Task 7.4.

The enterprise uses 520 units of material per month, the cost of each order is 350 UAH, the cost of storing each unit of material is 25 UAH. You need to answer the following questions:

1. What is the optimal order size?
2. How many orders should be placed per month?
3. How often does each order need to be placed?

When solving, the Wilson model formula should be used.

Task 7.5.

Based on the data provided in the financial statements of the PJSC "Sakhnovshchynske named after M. O. Klyuchka", namely: the balance sheet of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix C) and the report on the financial results of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix D), determine the dynamics of working capital of the PJSC "Sakhnovshchynske named after M. O. Klyuchka". Draw conclusions regarding the enterprise's working capital management system.

To evaluate the working capital management system of the PrJSC "Sakhnovshchynske named after M. O. Klyuchka", use Tables 2.33 and 2.34.

Table 2.33

The structure of the company's working capital

Structural elements	Working capital structure		Working capital structure		Structure of circulating funds	
	thousand UAH	%	thousand UAH	%	thousand UAH	%
Production stocks	13,261		13,261		–	
Current biological assets	4,005		4,005		–	
Work in progress	13,090		13,090		–	
Deferred expenses	424		424		–	
I. Total working capital	30,780		30,780		–	
Finished products	3,919		–		3,919	
Goods	3		–		3	
Accounts receivable for goods, works and services	1,863		–		1,863	
Accounts receivable	3		–		3	
Other current receivables	20		–		20	
Current financial investments	–		–		–	
Cash and cash equivalents	36		–		36	
Other current assets	353		–		353	
II. Total circulating funds	6,197		–		6,197	
III. Working capital	36,977		–		–	–

Table 2.34

Analysis of the efficiency of the use of the enterprise's working capital

Indicator	Previous period	Reporting period	Deviation	
			Absolute	Relative, %
Turnover ratio, revolutions				
Load factor, UAH / UAH				
Duration of one revolution, days				
Material yield, UAH / UAH				
Material consumption, UAH / UAH				

Task 7.6.

An industrial enterprise uses a part of type AM-1 in one of its technological processes. These parts are purchased from an external supplier. The enterprise's demand for parts of type AM-1 varies periodically, but it can be approximately described by a normal distribution with a mean value of 100 parts per day. The standard deviation of demand is 10 parts per day. The cost of one part is 10 UAH. As agreed, the supplier makes a payment of 300 UAH for each order. The supplier's order fulfillment period is fixed and equal to 8 days. According to the forecasts of the enterprise's specialists, storage costs are 20 % of the average annual cost of inventories. The company operates 5 days a week for 50 weeks a year.

How many parts should the company order each time and what should be the reorder rate if an inventory shortage of more than 20 cycles (5 %) on average is undesirable for the company? What is a rational amount of reserves?

Topic 8. Development of measures to improve the efficiency of the enterprise and strengthen its market position

The goal: Main directions of increasing the efficiency of the enterprise. Features of developing comprehensive plans to improve the enterprise's performance indicators, determining the enterprise's reserves based on business diagnostics; determining the overall efficiency of the enterprise's activities

and highlighting "weak points". Analysis of possible directions of measures to implement hidden reserves.

Recommended literature: main [1; 2]; additional [8; 10; 14].

Task 8.1.

LLC "Dyvo" sells computer games. As the financial controller of the enterprise, you have calculated a number of ratios for the past years. You also have information about the industry averages necessary for comparison. You have calculated the following ratios (Table 2.35).

Table 2.35

Financial indicators of the activities of LLC "Dyvo"

Indicator	Previous period	Reporting period	Industry average
Return on invested capital	19 %	19 %	19 %
Return on equity	24 %	21 %	16 %
Gross profit margin	23 %	25 %	20 %
Net profit margin	14 %	12 %	9 %
Coverage ratio	1.6	1.8	1.4
Quick liquidity ratio	0.8	0.8	0.8
Accounts receivable maturity period	32 days	26 days	29 days
Accounts payable maturity period	63 days	42 days	42 days
Inventory turnover	68 days	72 days	72 days

Comment on the importance of these ratios, highlighting their impact on the company's management strategy in the coming years. Your comments should be presented from the perspective of the shareholders, owners, and internal management of Dyvo LLC.

Task 8.2.

Based on the data provided in the financial statements of the PJSC "Sakhnovshchynske named after M. O. Klyuchka", namely: the balance sheet of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix C) and the report on the financial results of the activities of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix D),

determine the size of the enterprise's own working capital, the profitability of capital and assess the effectiveness of capital attraction at the enterprise. Draw conclusions regarding the sources of capital formation of the enterprise. Use Table 2.36 to assess the enterprise's own working capital.

Table 2.36

The size of the enterprise's own working capital

Calculation formula balance sheet data of the enterprise (F. 1 – Appendix C)	Own working capital, thousand UAH		Deviation	
	at the beginning of the period	at the end of the period	absolute, thousand UAH	relative, %
line 1195 – line 1695				
line 1195 – (line 1595 + line 1695)				
line 1495 – (line 1095 – line 1040)				
line 1495 + line 1595 – line 1095				
line 1495 – line 1095				

Task 8.3.

Based on the balance sheet of the Knopka enterprise presented in Table 2.37, it is necessary to calculate its own working capital, current financial needs; determine the potential surplus/deficit of cash; calculate the actual surplus deficit of cash; if a deficit is detected, calculate the amount of the required short-term loan.

Table 2.37

Balance sheet of the enterprise, thousand UAH

Assets		Liabilities	
Main assets	13,500	Own funds	12,000
Raw material stocks	1,200	Reserves	1,000
Work in progress	1,300	Long-term debt	5,000
Short-term financial investments	1,500	Short-term bank debt	3,000
Accounts receivable	2,800	Accounts payable	3,200
Cash	1,400		
Finished goods inventories	1,300		
Other current assets	1,200		
Balance	24,200	Balance	24,200

Task 8.4.

Using the data in Table 2.38, draw conclusions about the enterprise's liquidity.

Table 2.38

Assessment of the company's liquidity, thousand UAH

Position name	Reporting dates		
	Jan. 1, 2022	Jan. 1, 2023	Jan. 1, 2024
Production stocks	996,900	2,609,300	3,299,900
Work in progress	180,900	308,200	450 200
Finished products	991,900	1,958,400	3,730,800
Accounts receivable	154,600	5,891,700	18,793,000
Advances to suppliers	154,000	90,000	125 100
Cash	77,500	1,735,100	720,000
Other current assets	1,717,900	515,600	569,400
Short-term loans	186,800	122 100	0
Accounts payable	844 100	2,750,100	13,882,900
Buyers' advances	131,200	1,930,100	34,604
Budget calculations	173,700	266,600	574 100
Settlements with personnel	115,200	154,000	177,700
Other current liabilities	290 100	652,400	5,434,300

Task 8.5.

Based on the data provided in the financial statements of the PJSC "Sakhnovshchynske named after M. O. Klyuchka", namely: the balance sheet of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix C) and the report on the financial results of the PJSC "Sakhnovshchynske named after M. O. Klyuchka" (see Appendix D), it is necessary to conduct a financial diagnostics of the enterprise.

Draw conclusions about the current situation of the enterprise and propose measures to improve the efficiency of the enterprise.

Recommended reading

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Appendices

Appendix A

Balance sheet (statement of financial position) as of December 31 of the reporting period

Assets	Code line	At the beginning of the reporting period	At the end of the reporting period
1	2	3	4
I. Non-current assets			
Intangible assets	1000	68	50
Original cost	1001	184	190
Accumulated depreciation	1002	116	140
Uncompleted capital investments	1005	2,229	2,064
Fixed assets	1010	5,933	5,794
Original cost	1011	36,376	38,131
Wear and tear	1012	30,443	32,337
Deferred tax assets	1045	30	30
Total under Section I	1095	8,260	7,938
II. Current assets			
Stocks	1100	372	428
Current biological assets	1110	0	0
Accounts receivable for products, goods, works, services	1125	7,890	1,855
Accounts receivable by settlement: for advances issued	1130	89	30
on a budget	1135	0	38
Accounts receivable from internal settlements	1145	1,114	9,422
Other current receivables	1155	17	88
Current financial investments	1160	0	0
Money and its equivalents	1165	1,359	187
Bank accounts	1167	1,359	187
Deferred expenses	1170	17	22
Other current assets	1190	42	388
Total under Section II	1195	10,900	12,458
III. Non-current assets held for sale and disposal groups	1200	0	0
Balance	1300	19,160	20,396

Appendix A (the end)

Liabilities	Code line	At the beginning of the reporting period	At the end of the reporting period
1	2	3	4
I. Equity		–	–
Registered capital	1400	–	–
Capital in revaluations	1405	228	282
Additional capital	1410	3,765	3,765
Reserve capital	1415	0	0
Retained earnings (uncovered loss)	1420	0	0
Unpaid capital	1425	0	0
Withdrawn capital	1430	0	0
Total under Section I	1495	3,993	4,047
II. Long-term liabilities and provisions			
Deferred tax liabilities	1500	0	0
Long-term bank loans	1510	0	0
Other long-term liabilities	1515	1,499	1,170
Long-term provisions	1520	0	0
Targeted funding	1525	0	0
Total under Section II	1595	1,499	1,170
III. Current liabilities and provision			
Short-term bank loans	1600	0	0
Current accounts payable for: long-term liabilities	1610	0	0
goods, works, services	1615	583	2736
budget calculations	1620	212	179
including income tax	1621	0	0
insurance calculations	1625	116	17
payroll calculations	1630	444	63
Current payables from internal settlements	1645	11,975	11,955
Current provisions	1660	324	202
Deferred income	1665	0	0
Other current liabilities	1690	14	27
Total under Section III	1695	13,668	15,179
IV. Liabilities related to non-current assets, held for sale, and disposal groups	1700	0	0
Balance	1900	19,160	20,396

**Statement of financial results (statement of comprehensive income)
for the reporting period**

I. Financial results

Article	Code line	For the reporting period	For the same period of the previous year
1	2	3	4
Net income from sales of products (goods, works, services)	2000	9,908	20,986
Cost of goods sold (goods, works, services)	2050	(31,768)	(23,131)
Gross: profit	2090	–	–
loss	2095	(21,860)	(2,145)
Other operating income	2120	103	77
Administrative costs	2130	(3155)	(2,195)
Selling expenses	2150	(–)	(–)
Other operating expenses	2180	(400)	(334)
Financial result of operating activities: profit	2190	–	–
loss	2195	(25,312)	(4,597)
Income from capital participation	2200	–	–
Other financial income	2220	–	–
Other income	2240	500	–
Financial costs	2250	(–)	(–)
Losses from participation in capital	2255	(–)	(–)
Other expenses	2270	(5)	(–)
Financial result before tax: profit	2290	–	–
loss	2295	(24,817)	(4,597)
Income tax expenses (income)	2300	–	–
Profit (loss) from discontinued operations after tax	2305	–	–
Net financial result: profit	2350	–	–
loss	2355	(24,817)	(4,597)

II. Total income

Article	Code line	For the reporting period	For the same period of the previous year
1	2	3	4
Revaluation (mark-up) of non-current assets	2400	54	20
Revaluation (mark-up) of financial instruments	2405	–	–
Accumulated exchange rate differences	2410	–	–
Share of other comprehensive income of associates and joint ventures	2415	–	–
Other comprehensive income	2445	–	–
Other comprehensive income before tax	2450	54	20
Income tax related to other comprehensive income	2455	–	–
Other comprehensive income after tax	2460	54	20
Total income (sum of lines 2350, 2355 and 2460)	2465	(24,763)	(4,577)

III. Elements of operating costs

Article title	Code line	For the reporting period	For the same period last year
1	2	3	4
Material costs	2500	9 211	7 302
Labor costs	2505	17 297	12 239
Deductions for social events	2510	3 682	2 538
Amortization	2515	1 252	999
Other operating expenses	2520	3 881	2 579
Total	2550	35 323	25 657

**Balance sheet (statement of financial position)
as of December 31 of the reporting period**

Assets	Code line	At the beginning of the reporting period	At the end of the reporting period
1	2	3	4
I. Non-current assets			
Intangible assets	1000		
original cost	1001		
accumulated depreciation	1002		
Uncompleted capital investments	1005	132	132
Fixed assets	1010	13,567	12,443
original cost	1011	24,859	24,917
wear and tear	1012	11,292	12,474
Investment property	1015		
Long-term biological assets	1020	14,396	7,690
Long-term financial investments: which are accounted for using the equity method of other enterprises	1030		
other financial investments	1035		
Long-term receivables	1040		
Deferred tax assets	1045		
Other non-current assets	1090		
Total under Section I	1095	28,095	20,265
II. Current assets			
Stocks	1100	30,273	54,589
Production stocks	1101	13,261	10,390
Work in progress	1102	13,090	13,212
Finished products	1103	3,919	24,544
Goods	1104	3	6,443
Current biological assets	1110	4,005	315
Accounts receivable for products, goods, works, services	1125	1,863	7,619
Accounts receivable by settlement: for advances issued	1130		
on a budget	1135	3	26
including income tax	1136		
Other current receivables	1155	20	21
Current financial investments	1160		
Money and its equivalents	1165	36	70
Deferred expenses	1170	424	303
Other current assets	1190	353	161
Total under Section II	1195	36,977	63,104
III. Non-current assets held for sale and disposal groups	1200		
Balance	1300	65,072	83,369

Liabilities	Code line	At the beginning of the reporting period	At the end of the reporting period
1	2	3	4
I. Equity			
Registered (share) capital	1400	1,549	1,549
Capital in revaluations	1405		
Additional capital	1410		
Reserve capital	1415	19,556	19,556
Retained earnings (uncovered loss)	1420	5,017	5,143
Unpaid capital	1425		
Withdrawn capital	1430		
Total under Section I	1495	26,122	26,248
II. Long-term liabilities and provisions			
Deferred tax liabilities	1500		
Long-term bank loans	1510		
Other long-term liabilities	1515		
Long-term provisions	1520		
Targeted funding	1525		
Total under Section II	1595		
III. Current liabilities and provisions			
Short-term bank loans	1600		
Bills of exchange issued	1605		2,000
Current accounts payable for:	1610		
long-term liabilities			
goods, works, services	1615	17,723	27,467
budget calculations	1620	345	232
including income tax	1621		
insurance calculations	1625	50	51
payroll calculations	1630	456	878
Current accounts payable for advances received	1635	2,000	
Current accounts payable for settlements with participants	1640	35	35
Current provisions	1660	144	42
Deferred income	1665		
Other current liabilities	1690	18,197	26,416
Total under Section III	1695	38,950	57,121
IV. Liabilities related to non-current assets held for sale and disposal groups	1700		
Balance	1900	65,072	83,369

**Statement of financial results (statement of comprehensive income)
for the reporting period**

I. Financial results

Article	Code line	For the reporting period	For the same period of the previous year
1	2	3	4
Net income from sales of products (goods, works, services)	2000	20403	31320
Cost of goods sold (goods, works, services)	2050	27204	31454
Gross: profit	2090		
loss	2095	6801	134
Other operating income	2120	14623	11147
Administrative costs	2130	1696	1809
Selling expenses	2150	20	406
Other operating expenses	2180	5377	8234
Financial result from operating activities: profit	2190	729	564
loss	2195		
Income from capital participation	2200		
Other financial income	2220		
Other income	2240	11	51
Financial costs	2250	543	437
Losses from participation in capital	2255		
Other expenses	2270	71	102
Financial result before tax: profit	2290	126	76
loss	2295		
Income tax expenses (income)	2300		
Profit (loss) from discontinued operations after tax	2305		
Net financial result: profit	2350	126	76
loss	2355		

II. Total income

Article	Code line	For the reporting period	For the same period of the previous year
1	2	3	4
Revaluation (mark-up) of non-current assets	2400	0	0
Revaluation (mark-up) of financial instruments	2405	0	0
Accumulated exchange rate differences	2410	0	0
Share of other comprehensive income of associates and joint ventures	2415	0	0
Other comprehensive income	2445	0	0
Other comprehensive income before tax	2450	0	
Income tax related to other comprehensive income	2455	0	0
Other comprehensive income after tax	2460	0	0
Total income (sum of lines 2350, 2355 and 2460)	2465	0	0

III. Elements of operating costs

Article title	Code line	For the reporting period	For the same period of the previous year
1	2	3	4
Material costs	2500	29,863	32,236
Labor costs	2505	4,240	5,824
Deductions for social events	2510	934	1,290
Amortization	2515	1,183	1,115
Other operating expenses	2520	892	1,766
Total	2550	37,112	42,231

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НАВЧАЛЬНЕ ВИДАННЯ

БІЗНЕС ДІАГНОСТИКА

**Методичні рекомендації до практичних завдань
для здобувачів вищої освіти
спеціальності 051 "Економіка"
освітньої програми "Економіка бізнесу"
другого (магістерського) рівня
(англ. мовою)**

Самостійне електронне текстове мережеве видання

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Викладено основні положення щодо методики та інструментарію виконання практичних завдань із навчальної дисципліни. Подано практичні завдання з формування професійних компетентностей щодо комплексної економічної діагностики фінансової, інвестиційної та операційної діяльності підприємств, формування заходів підвищення ефективності використання ресурсів підприємства відповідно до програми навчальної дисципліни.

Рекомендовано для здобувачів вищої освіти спеціальності 051 «Економіка» освітньої програми «Економіка бізнесу» другого (магістерського) рівня.

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