

**MPH\_AOPR (Operations Management and ERP) – Questions Autumn \_ Winter 2020**

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Created by : Ing. J.Skorkovský,CSc. KPH ESF MU BRNO, Czech Republic ;  
[1730@mail.muni.cz](mailto:1730@mail.muni.cz);[skorka@cmail.cz](mailto:skorka@cmail.cz); , [miki@econ.muni.cz](mailto:miki@econ.muni.cz) , tel : +420 731 113 517

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All questions have to be studied with related study materials handed over to students during Brno's lessons (Autumn-Winter 2020). It is valid for the MPH\_AOPR course.

It will be shortly reviewed (explained) during the remaining lesson on 16.12.2020, considering that this date is reserved for the seminar work presentation this day.

The week starting on 14.12.2020 is more and less assigned for the presentations.

Exam dates will be published on [www.is.muni.cz](http://www.is.muni.cz) and will also be presented by your professor.



















All resources were uploaded to study material and interaction syllabi.

Below listed material corresponds to all MS Dynamics NAV 2018w1 functions and its impact on operation management during practical lessons. This list has to be used for MS Dynamics NAV 2018w1 studies.

Mind you, access to MS Dynamics NAV 2018w1 English version (British local currency and English database) is enabled either on your PC or via Orion server.

## Resources copied from study material folder

<b>P</b>	Yield_Management_Basics_20201123.pptx	Skorkovský, J.	19. 11. 2020
<b>P</b>	Theory_of_Constraints_BASIC5_20201001.ppt	Skorkovský, J.	12. 10. 2020
<b>W</b>	Simple_scenario_Purchase_ERP_MS_Dynamics_NAV_ENG__20201021.docx	Skorkovský, J.	21. 10. 2020
<b>W</b>	Simple_scenario_Payment_General_Journal_ERP_Microsoft_Dynamics_NAV...	Skorkovský, J.	8. 11. 2020
<b>W</b>	Simple_scenario_of_the_first_and_second_ERP_Microsoft_Dynamics_NAV_s...	Skorkovský, J.	6. 10. 2020
<b>W</b>	Simple_scenario_Discounts_ERP_Microsoft_Dynamics_NAV_20201111.docx	Skorkovský, J.	11. 11. 2020
<b>W</b>	Simple_scenario_CRM_ERP_Microsoft_Dynamics_NAV_20201130.docx	Skorkovský, J.	27. 11. 2020
<b>W</b>	Simple_scenario_Accounting_Schedules_ERP_MS_NAV_20201123.docx	Skorkovský, J.	20. 11. 2020
<b>W</b>	Simple__scenario_Transfers_ERP_Microsoft_Dynamics_NAV_ENG_20201021...	Skorkovský, J.	21. 10. 2020
<b>W</b>	Simple__scenario_Budgets_ERP_Microsoft_Dynamics_NAV_20201209.docx	Skorkovský, J.	3. 12. 2020
<b>X</b>	Reorder_point_and_safety_stock_calculations_20141105.xls	Skorkovský, J.	19. 10. 2020
<b>P</b>	Product_mixture_II_20201026.pptx	Skorkovský, J.	29. 10. 2020
<b>P</b>	Product_mix_and_TOC_20191007.pptx	Skorkovský, J.	27. 10. 2020
<b>P</b>	Operation_Management_Introduction_20200917.pptx	Skorkovský, J.	5. 10. 2020

	LP_EXCEL_SOLVER_USE_20201130.xlsx	Skorkovský, J.	26. 11. 2020
	Littluv_zakon-aplikace_B2_20200225.pptx	Skorkovský, J.	19. 11. 2020
	<u>Little s law basics last version 20201123.pptx</u>	★ Skorkovský, J.	19. 11. 2020
	Linear_programming-introduction_and_examples_of_SOLVER_use_202011...	Skorkovský, J.	26. 11. 2020
	Kepner-Tregoe_Methodology_version_6_20201207.pptx	Skorkovský, J.	6. 12. 2020
	Kepner_Tregoe_application_KL585_AeroSpaceAnd_Defense_20201209.pdf	Skorkovský, J.	9. 12. 2020
	Ishikawa_fishbone_diagram_ENGLISH_Version_20191014.ppt	Skorkovský, J.	4. 11. 2020
	Introduction_to_MS_Dynamics_NAV_2018w1_20200921.pptx	Skorkovský, J.	7. 10. 2020
	Introduction_scenario_Sales_ERP_MS_Dynamics_NAV_ENG_20201021.docx	Skorkovský, J.	21. 10. 2020
	Introduction_MS_Dynamics_Production_main_concepts_NAV_RTC_2017110...	Skorkovský, J.	19. 10. 2020
	Introduction_MS_Dynamics_NAV_Basic_payment_and_GLJournal_20202102...	Skorkovský, J.	29. 10. 2020
	Introduction_MS_Dynamics_NAV_Basic_payment_and_GL_Journal_2020210...	Skorkovský, J.	8. 11. 2020
	Introduction_MS_Dynamics_NAV_Accounting_Schedules_20201125.pptx	Skorkovský, J.	20. 11. 2020
	Introduction_MS_Dynamics_NAV__Transfer_Orders_20201021.pptx	Skorkovský, J.	4. 11. 2020
	Introduction_MS_Dynamics_Discounts_NAV_20201111.pptx	Skorkovský, J.	18. 11. 2020
	Introduction_MS_Dynamics_Budgets_NAV-_20201209.pptx	Skorkovský, J.	3. 12. 2020
	Introduction_MS_Dynamics__Sales_NAV_RTC_20201014.pptx	Skorkovský, J.	14. 10. 2020
	Introduction_MS_Dynamics__Purchase_NAV_RTC_20201014.pptx	Skorkovský, J.	14. 10. 2020

	Introduction_MS_Dynamics_NAV_CRM_20201130.pptx	Skorkovský, J.	2. 12. 2020
	Introduction_M_Dynamics_NAV_Transfer_Orders_20201021.pptx	★ Skorkovský, J.	21. 10. 2020
	Gartner_Magic_Quadrant_Tool_20201113.pptx	Skorkovský, J.	16. 11. 2020
	Economic_Order_Quantity-basics_20201113.pptx	Skorkovský, J.	16. 11. 2020
	Drum_Buffer_Rope_20201130.ppt	Skorkovský, J.	26. 11. 2020
	Critical_Chain__20201021.ppt	Skorkovský, J.	26. 10. 2020
	Boston_matrix_20201113.ppt	Skorkovský, J.	16. 11. 2020
	Balanced_Scorecard_20201113.pptx	Skorkovský, J.	16. 11. 2020
	Assignment_of_Operations_Management_seminar_work_20201111.doc	Skorkovský, J.	11. 11. 2020
	06_Introduction-to-Drum-Buffer-Rope.pdf	Skorkovský, J.	26. 11. 2020

## Practice Questions MS Dynamics NAV 2018w1 for course MPH\_AOPR)

1. The modularity of the ERP systems. What are process areas controlled by ERP MS Dynamics NAV 2018w1?
2. Use of a searching window to find application areas.
3. Main windows (forms) used in ERP and **syntax** for Debits and *Credits (posted General Ledger Entries)* – card window, line window, matrix window (e.g., **Item by location** from Item cards) header and line window (form and sub-form, which is the basic structure for every NAV document (*Sales Order, Purchase Order, Contact Card (CRM), Transfer Order,..*))
4. Main tables (*Item, Customer and Vendor- primary data field such as Balance, a Basic unit of measure, the Payment condition, Costing Methods, and so on. G/L account- where these accounts can be found? You can use any time Help, which can be accessed by the icon on the upper-right corner window.*
5. Purchase an item and impacts of F9 (posting) -> Item and Vendor entries and G/L entries. *Create a new Purchase Order and show all impacts (Item ledger entries, General Ledger entries, and Vendor Ledger Entry!*
6. Sale of an item and impacts of **F9** (posting) -> item and customer entries, G/L entries *Create new Sales Order and show all impacts (Item ledger entries, General Ledger entries, and Customer Ledger Entry!*
7. The payment of the open entry (Customer or Vendor) uses the Financial Journal and impacts. Show how to get payment from the chosen Customer with a non-zero Balance on the Customer Card. Explain what the meaning of Open entry is!
8. All presented discounts (price discount, line discount in %, and invoice discount) and the use of these incentives! *What kind of discounts do we have in MS Dynamics NAV 2018w1? Show setup of discount specified by examiner and impact of applied discount in sales lines!*

9. Contact Card and its profile and use of it. The connection of the contact card to the Customer (Vendor) card. *What is the use of a contact card profile? How is the contact card connected to the Customer?*
10. What is an Opportunity and Sales cycle? *(Show from the Contact card or Salesperson card).* And how to create a new interaction from the contact card *(use of wizard)? Use already made Opportunities, where you can easily access Sales Cycles from the opportunity lines (see main hotkeys short-hands).* Explain how you can create a profile, which can split up customers into three levels (A, B, and C- a simple example of Pareto analysis- this can also be used in question 18 in the theoretical section) as presented during academic sessions. )
11. Transfer Order *(Present to examiner transfer of a chosen item from Blue to Red Location).* *After Transfer Order is posted (F9) show by Ctrl-F7 created item entries! How many item entries are made during the transfer? Which time parameters related to the location card influence the time of transfer? Which time parameters influence shipping time (see Customer card or Transfer Routes by use of the searching window.*
12. Account schedule. Start the chosen Account schedule. *Name of the analysis and its template and how to edit it and see data by overview).* *Explain the benefits and use of it.*
13. Explain and show the primary use and benefits of Budgets. Explain and demonstrate the use accounting schedule tool to see actual and expected values and differences between them.
14. Explain the primary use of dimensions and already created sales analysis (**only if delivered!**)
15. Explain the basics of dimensions (used, for instance, in the example related to budgets) –see question 13.

### **Listing of Theory Resources** – will be used below to show you mapping knowledge –resources.

- A. [Operation Management Introduction.](#)
- B. [Theory of Constraints](#)
- C. [Critical Chain \(CCPM\)](#)
- D. [Boston Matrix and Product Life Cycle \(PLC\)](#)
- E. [Ishikawa fishbone diagram and its combination with Pareto Analysis](#)
- F. [Pareto Analysis Simplified](#)
- G. [Reserve clause \(not used so far\)](#)
- H. [OLAP and Business Intelligence \(if delivered\)](#)
- I. [Magic Quadrant Matrix from Gartner company](#)
- J. [Kepner -Tregoe Methodology](#)
- K. [Total Quality Management \(if delivered\)](#)
- L. [Drum-Buffer-Rope principles](#)
- M. [Reserve clause \(not used so far\)](#)
- N. [Reserve clause \(not used so far\)](#)
- O. [Balanced Scorecard](#)
- P. [Reserve clause \(not used so far\)](#)
- Q. [Linear programming basics](#)
- R. [Yield management](#)
- S. [Little's law](#)

## Theory Questions (resources A-S):

### Structure of the theory question:

*Comment: Indicative questions, which are written below in italics, are only ancillary issues! It is assumed that Your answers might be more involved! OM=Operation Management.*

Number	Description:	Resource (slides if required )
1.	Name key OM activities and use of OM:	<b>A</b>
2.	Name critical skills, which should be part of the OM knowledge portfolio:	<b>A</b>
3.	What is a Deming cycle? What supposed to be the main task to improve company processes? :	<b>A</b>
4.	The evaluation of the project result (you can use your project form seminar work and related risk analysis). How can we know that the project was successful? Consider time, due date, capacities of resources, budgets limits, required knowledge portfolio, project changes:	<b>A, B, and C</b>
5.	<b>Reserve clause (not used so far)</b>	
6.	Specify the basic concept of the Theory of Constraints:	<b>B and C</b> <i>Very complex question! It covers, among other questions 7,8,9, and also 10.</i>
7.	TOC metrics:	<b>B</b> <i>Name three main metrics and their trends, explain the benefits of using these metrics. How to calculate <b>NET Profit</b> and <b>ROI</b> by using these metrics?</i>
8.	Cost World and Throughput World:	<b>B</b> <i>Define and explain differences</i>
9.	TOC five steps:	<b>B</b>
10.	Drum-Buffer-Rope (explain only principles):	<b>L</b>
11.	Primary trees (Thinking process tools) – Current Reality Tree, Evaporating Cloud Tree, and Future Reality Tree:	<b>B</b> <i>Explain the primary use and how these trees are constructed. This question is more and less also related to your seminar work!</i>
12.	What is bad multitasking? :	<b>C</b>
13.	Critical path and Critical Chain differences:	<b>C</b> <i>Specify differences between CP (Critical Path and CC (Critical chain)!</i>
14.	Use of project buffer (buffer management concept and graph with three zones):	<b>C</b> <i>Specify the use of buffers, how the size of the buffer is set.</i>
15.	Total Quality Management Basics:	<b>K (only if delivered)</b>
16.	Ishikawa fishbone diagram:	<b>E</b>
17.	Boston matrix and Product Life Cycle ( <b>PLC</b> ). State some examples of PLC:	<b>D</b>
18.	Pareto analysis and its applications (use of PWP presentation Ishikawa allowed):	<b>E –You can show already created PARETO example in 2018w1 (see PWP NAV number 6 –CRM- and related text (example)</b>
19.	OLAP (Business Intelligence):	<b>H (only if delivered)</b> <i>Basic principles and use of using <b>BI (Business Intelligence)</b>. What is the <b>N-dimension cube</b>?</i>
20.	Basic principles of Kepner –Tregoe method supporting decision making:	<b>J</b>

*Must-to-have and Nice-to-have criteria and its use, principles of questions WHO, WHAT, WHEN, WHERE, and EXTENT and Why to distinguish between It Is and It Is Not.*

21. Magic Gartner Quadrant Matrix: **I**
22. Balanced Scorecard (BSC) basic principles and use. What is **KPI**? Name all four sections of BCS: **O**
23. The primary use of Linear programming: **Q** (*Target function and constraints. Reason of using Solver Explain by use of PWP*)
24. Basic rules of Yield management: **R** (processes where revenue management methodology can be used, Show and No-show, Overbooking principles, Cu - underestimated and Co - overestimated, calculations – presented examples in PWP can be used during the exam)
25. Little's law formulation and use: **S**