

MPH_AOMA (Operations Management) – Questions Autumn _ Winter 2018

MPH_AOPR (Operations Research and ERP) – questions 2018

Created by : Ing. J.Skorkovský,CSc. KPH ESF MU BRNO, Czech Republic ;
1730@mail.muni.cz; skorka@cmail.cz; jaromir.skorkovsky@navertica.com,
miki@econ.muni.cz , tel : +420 731 113 517

Date : 21.11.2018

Version : VI.

All questions have to be studied with the help of related study materials handed over to students during lessons held in Brno (Autumn-Winter 2018). It is valid for both courses which have separate study material folders.

Will be shortly reviewed (explained) during two remaining lessons (26.11.2017 and 28.11.2018) taking into consideration, that partly date 26.11.18 and the whole lesson on 28.11.18 might be devoted to seminar work presentation. Next week starting on 10.12.18 are so far assigned for the final exams (preliminarily). Another exam date will be on 17.12.2018 (VT206). Essential parts of below-specified questions (TOC and CCMP) should be described in your Seminar works assigned to you, and I hope handed over, presented and defended and remarked (revised) by your tutor.

Resources (actual status to the date 19.11.2018). All files in the below-presented study material list were used during theoretical and practical lessons or will be still used till the end of courses MPH-AOMA and MPH_AOPR. The other files related to the session which will be given on 19.11.2018, 21.11.2018, 26.11.2018 and possibly 28.11.2018 will be added to this material and can be accessed directly from Study materials after upload (21.11.2018).

Below listed material corresponds to all MS Dynamics NAV 2016w1 functions and its impact to operation management during practical lessons. This list has to be used for MS Dynamics NAV 2016w1 studies.

Mind you, that **access to MS Dynamics NAV 2016w1** English version (British local currency and English database) is enabled on all computers in the library of the ESF and possibly also in the web version, and the way how to access has been presented at the beginning of the course. (ID=student and password=P@ssword1). From this table mentioned below, it is visible and clear that all listed passages trained and shown during the MS Dynamics NAV 2016w1 system hands-on seminars.

For both courses, it represents all in all slides from below mentioned table. The number of slides in the theoretical part was not calculated so far.

All student are kindly asked to check if all listed files have been uploaded to Study material folders. If not, report immediately to tutor.

Listing of Practice Resources (ERP MS Dynamics NAV 2016w1)
(mapping questions-resources – see a list of questions below)

Statistics of the slides for AOMA and AOPR courses

Number	Description	230
1	MS Dynamics NAV Introduction	18
2	Filtering searching working space	14
3	Introduction MS Dynamics NAV Purchase Orders	24
4	Introduction MS Dynamics NAV Sales Orders	33
5	Introduction MS Dynamics NAV Transfers Orders	17
6	Introduction MS Dynamics NAV Financial Journal (payment)	14
7	Introduction MS Dynamics NAV CRM	32
8	Reserved clause (not used for these course)	0
9	Introduction MS Dynamics NAV Discounts	14
10	Introduction MS Dynamics NAV Account schedules	20
11	Introduction MS Dynamics NAV Budgets	14
12	Introduction MS Dynamics NAV Dimensions (will be added)	14

Examples printed and handed over to all students

		50				
Nu	Description	Pages	Date	Uploaded	PWP	
1	Purchase	8	1.10.18	Ano	Ano	
2	Sales	6	10.10.18	Ano	Ano	
3	Transfers	4	15.10.18	Ano	Ano	
4	General Journal	6	24.10.18	Ano	Ano	
5	Discounts	4	31.10.18	Ano	Ano	
6	CRM	9	07.11.18	Ano	Ano	
7	Budgets	4	21.11.18	Ano	Ano	
8	Accounting Schedules	9	13.11.18	Ano	Ano	
9	Dimensions (will be probably added)					

As has been said before, all presented functionalities and principles are described by listed files step-by-step. These materials serve as ERP MS Dynamics NAV 2016w1 “cookbook.”

Practice Questions MS Dynamics NAV 2016xw1 (RTC) for both courses (AOMA and AOPR)

1. Modularity of the ERP systems. What areas can be controlled by ERP MS Dynamics NAV 2016.
2. Use of 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 basic structure for every NAV document (*Sales Order, Purchase Order, Credit Note, Contact Card (CRM), Transfer Order,..*))
4. Main tables (*Item, Customer and Vendor- primary data field such as Balance, a Basic unit of measure, Payment condition, Costing Methods and so on. You can use any time Help which can be accessed by key F1 from the field in questions for better and more concise presentation!*)
5. Purchase of an item and impacts of **F9** (posting) -> Item and Vendor entries, G/L entries. *Create 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) by use of the Financial Journal and impacts. Show how to get payment from chosen Customer with non-zero Balance on Customer Card. Explain what the meaning of Open entry is!
8. All presented discounts (price, line in % and invoice discount) and the use of this incentives! *What kind of discounts do we have in MS Dynamics NAV 2016w1? 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 Customer (Vendor) card. *What is the use of a contact card profile? How is the contact card connected to Customer?*
10. What is an Opportunity and Sales cycle? (*Show from Contact card or Salesperson card*) and how to create a new interaction from the contact card (*use of wizard*)? *Use already created 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 3 levels (A,B and C- a simple example of Pareto analysis- this can also be used in question 18 in the theoretical section)-this will be presented on 21.11 (AOPR at 12:00 and 21.11 18:00- AOMA)
11. Transfer Order (*Present to examiner transfer of a chosen item from **Blue** to **Red** Location*). *After Transfer Order will be posted (F9) show by use Ctrl-F7 created item entries! How many item entries will be created during the transfer?*
12. Account schedule. Start 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.
14. Explain the primary use of dimensions and related analysis (**only If delivered !!**)

Listing of Theory Resources – will be used below to show you mapping knowledge –resources. If some resource was presented only for MPH_AOPR, then it will be marked by **RED TEXT ONLY MPH_AOPR !!!!**

- 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 (2.11.)
- F. Pareto Analysis Simplified
- G. Reserve clause (not used so far)
- H. OLAP and Business Intelligence
- I. Magic Quadrant Matrix from Gartner company
- J. Kepner -Tregoe Methodology
- K. Total Quality Management - **ONLY MPH_AOPR (if delivered)**
- L. Drum-Buffer-Rope (will be uploaded after tuition) - **(if delivered)**
- M. Reserve clause (not used so far)
- N. Balanced Scorecard
- O. Linear programming - **ONLY MPH_AOPR**
- P. Yield management - **ONLY MPH_AOPR**
- Q. Decision trees - **ONLY MPH_AOPR**
- R. Little's law - **ONLY MPH_AOPR**

Theory Questions (resources A-R):

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!*

Number	Description:	Resource (slides if required)
1.	Name key OM activities and use of OM:	A
2.	Name critical skills, which should be part of OM knowledge portfolio:	A
3.	What is a Deming cycle? What supposed to be the main task in order to improve company processes? :	A, B, and N.
4.	The evaluation of the project result. How can we know, that the Project was successful? Consider time, due date, capacities of resources, budgets limits, required knowledge portfolio, changes, and so on:	A, B, and C
5.	Reserve clause (not used so far)	
6.	Specify the basic concept of the Theory of Constraints:	B and C <i>Very complex question! It covers among others questions 7,8,9 and also 10.</i>
7.	TOC metrics:	B <i>Name three main metrics and their trends, explain the benefits of using these metrics. How to calculate NET Profit and ROI by using these metrics?</i>

Questions MPH_AOPR and MPH_AOMA courses_2017_2018

8. Cost World and Throughput World: **B**
Define and explain differences
9. TOC five steps: **B**
10. **Drum-Buffer-Rope**. (explain simply principles): **L (if delivered)**
11. Basic trees (Thinking process tools) – Current Reality Tree, Evaporating Cloud Tree, and Future Reality Tree: **B**
Explain the primary use and how these trees are constructed. This question is more and less also related to your seminar work!
12. What is bad multitasking? : **C**
13. Critical path and Critical Chain differences: **C**
Specify differences between CP and CC!
14. Use of project buffer (buffer management concept and graph with three zones): **C**
Specify the use of buffers, how the size of the buffer is set.
15. **Total Quality Management Basics: K ONLY MPH_AOPR (only if delivered)**
16. Ishikawa fishbone diagram: **E**
17. Boston matrix and Product Life Cycle (**PLC**). State some examples of PLC: **D**
18. Pareto analysis and its applications (use of PWP presentation Ishikawa allowed): **E** –*You can show already created PARETO example in 2016w1(see PWP NAV number 6 –CRM- and related text (example)*
19. **OLAP (Business Intelligence): H**
Basic principles and use of using BI (Business Intelligence). What is N-dimension cube?
20. Basic principles of Kepner –Tregoe method supporting decision making: **J**
Must and Want criteria and its use, principles of 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: **N**
23. **Primary use of Linear programming (Target function and constraints. Reason of using Solver Explain by use of PWP) O – ONLY MPH_AOPR**
24. **Basic rules of Yield management (areas where this part of revenue management methodology can be used, show not show, Cu Co, calculations – presented examples in PWP can be used during the exam) P – ONLY MPH_AOPR**
25. **Little’s law formulation and use R – ONLY MPH_AOPR**
26. **Decision tree – basic use - Q - ONLY MPH_AOPR**