MPH_AOPR (Operations Management and ERP) – Questions Autumn _ Winter 2021

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All questions have to be studied with related study materials handed over to students during Brno's lessons (Autumn-Winter 2021). It is valid for the MPH_AOPR course.

It will be reviewed (explained) during the remaining lesson on 29.11.2021 or 1.12.2021 at the latest, considering that this date should be reserved for the seminar work presentation day.

 The week starting on 1.12.2021 is more and less assigned for the presentations.

Exam dates are already published on www.is.muni.cz and will also be presented by your professor. All resources were uploaded to study material and interaction syllab**i.**

The below-listed material corresponds to all MS Dynamics 365 Business Central functions and their 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 365 Business Central is available on the cloud using your ID and passwords.

Files can also be found in MS TEAMS for your TEAM MPH_AOPR_2021.

Resources copied from study material folder

Operation Management area

↰	**OPERATION MANAGEMENT 2021** operation_management_2021 /18	Skorkovský, J. ⌐	2. 9. 2021	⠂
○ P	Yield_Management_Basics_20211115.pptx	Skorkovský, J.	15. 11. 2021	⠂
○ P	Theory_of_Constraints_BASICS_20210927.ppt	Skorkovský, J.	6. 10. 2021	⠂
○ P	Product_mixture_II_202111011.pptx	Skorkovský, J.	11. 10. 2021	⠂
○ P	Product_mix_and_TOC_20211011.pptx	Skorkovský, J.	12. 10. 2021	⠂
○ P	Operation_Management_Introduction_20210913.pptx	Skorkovský, J.	2. 9. 2021	⠂
○ X	LP_EXCEL_SOLVER_USE_20201130.xlsx	Skorkovský, J.	22. 11. 2021	⠂
○ P	Little_s_law_basics_last_version_20211115.pptx	Skorkovský, J.	15. 11. 2021	⠂
○ P	Little_law_application_B2_20211115.pptx	Skorkovský, J.	5. 10. 2021	⠂
○ P	Linear_programming-_introduction_and_examples_of_SOLVER_use_20211...	Skorkovský, J.	4. 11. 2021	⠂
○ P	Kepner-Tregoe_Methodology_version_7_20211108.pptx	Skorkovský, J.	17. 9. 2021	⠂
○ 📕	Kepner_Tregoe_application_KL585_AeroSpaceAnd_Defense_20201209.pdf	Skorkovský, J.	17. 9. 2021	⠂
○ P	Ishikawa_fishbone_diagram_ENGLISH_Version_202111101.ppt	Skorkovský, J.	16. 9. 2021	⠂
✓ P	Gartner_Magic_Quadrant_Tool_20211129.pptx	Skorkovský, J. ⌐	Dnes	⠂
○ P	Drum_Buffer_Rope_20211122.ppt	Skorkovský, J.	22. 11. 2021	⠂
○ P	Critical_Chain__20211025.ppt	Skorkovský, J.	7. 10. 2021	⠂
✓ P	Break-even_point_analysis_20211129.pptx	Skorkovský, J. ⌐	Dnes	⠂
✓ P	Boston_matrix_20211129.ppt	Skorkovský, J. ⌐	Dnes	⠂
○ P	Balanced_Scorecard_20201113.pptx	Skorkovský, J.	29. 10. 2021	⠂

Business Central area

↥	MS DYNAMICS 365 BUSINESS CENTRAL FILES 2021 ms_dynamics_…	Skorkovský, J. ⌐	2. 9. 2021
○	Introduction_MS_Dynamics_Discounts_Business_Central_20211027.pptx	Skorkovský, J.	29. 10. 2021
○	Introduction_MS_Dynamics__NAV_CRM_20211103.pptx	Skorkovský, J.	Dnes
○	Business_Central_Training_General_Ledger_and_Payment_Basics_202109…	Skorkovský, J.	10. 11. 2021
○	Business_Central_Introduction_Transfers_20210901.pptx	Skorkovský, J.	20. 10. 2021
○	Business_Central_Introduction_II_20210922.pptx	Skorkovský, J.	13. 10. 2021
○	Business_Central_Introduction_I_20210915.pptx	Skorkovský, J.	7. 10. 2021
○	Business_Central_Introduction_Applying_Item_Ledger_Entries_20210902….	Skorkovský, J.	2. 9. 2021
○	Business_Central_Introduction_Accounting_Schedules_20211117.pptx	Skorkovský, J.	Dnes
✓	Business_Central_Introduction_-_Budgets_20211124.pptx	Skorkovský, J. ⌐	Dnes
○	BC_-_1_This_is_Business_Central_ENG-20210226.pptx	Skorkovský, J.	22. 9. 2021

Practice Questions MS Dynamics 365 Business Central for course MPH_ AOPR

1. The modularity of the ERP systems. What are process areas controlled by Business Central?
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 BC document *(Sales Order, Purchase Order, Contact Card (CRM), Transfer Order)*
4. Main tables *(Item, Customer, and Vendor- primary data fields such as Balance, a Basic unit of measure, the Payment condition, Costing Methods, etc. **G/L account**- where can these accounts be found? You can use any time Help and Support, 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 BC1? 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.   )
See file : CRM-Opportunities_Pareto_Sales Cycle Scheme_20211201 – study material

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 using the searching window.*

12. Account schedule. Start the chosen Account schedule. N*ame 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 account schedule tool to see actual and expected values and differences between them.
You can use already created Account schedules as well as created budgets !!!

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. (**only If delivered**!)

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: **A**
2. Name critical skills, which should be part of the OM knowledge portfolio: **A**
3. What is a Deming cycle? What is supposed to be the main task to improve company processes? : **A**
4. The evaluation of the project result (you can use your project from 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: **A**, **B,** and **C**
5. **Reserve clause (not used so far)**
6. Specify the basic concept of the Theory of Constraints: **B and C**
   Very complex question! It covers, among other questions 7,8,9, and also 10.
7. **TOC** metrics: **B**
   *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?*
8. Cost World and Throughput World: **B**
   Define and explain differences
9. **TOC** five steps: **B**
10. Drum-Buffer-Rope (explain only main principles): **L**
11. Primary 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 (Critical Path and CC (Critical chain)!
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 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 BC (see PWP related to CRM)* **(only if delivered)**
19. OLAP (Business Intelligence): **H (only if delivered)**
    *Basic principles and use of using **BI (Business Intelligence).** What is the **N**-dimension cube?*

20. Basic principles of Kepner –Tregoe method supporting decision making: **J**
    *Must-to-have and Nice-to-have criteria and its use, principles of questions WHO, 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 – under-estimated and Co – over-estimated, calculations – presented examples in PWP can be used during the exam
25. Little's law formulation and use: **S**