

1. DSS (Decision Support Systems) and BI (Business Intelligence) are similar because: *

- ☐ They appeared in the same time
- ☒ BI evolved from DSS
- ☒ Both can rely on a data warehouse
- ☐ DSS evolved from BI

2. DSS and BI are different because: *

- ☒ direct vs. indirect support for decision making
- ☐ indirect vs. direct support for decision making
- ☐ support for large vs. any organizations
- ☐ support for any vs. small organizations
- ☒ support for any vs. large organizations

3. Data Mining and Predictive Analysis are core tools: *

- ☐ in BI
- ☐ in DSS
- ☒ in both areas

4. Select the true statements: *

- ☒ DSS methodologies were developed mostly in the academic world
- ☐ DSS methodologies were developed mostly by software companies
- ☐ BI methodologies were developed mostly in the academic world
- ☒ BI methodologies were developed mostly by software companies

5. What are the interpersonal managerial roles (Mintzberg)? *

- ☒ Figurehead
- ☒ Leader
- ☒ Liaison
- ☐ Monitor
- ☐ Negotiator

6. What are the informational managerial roles (Mintzberg)? *

- ☐ Figurehead
- ☒ Monitor
- ☒ Disseminator
- ☒ Spokesperson
- ☐ Disturbance handler

7. What are the decisional managerial roles (Mintzberg)? *

- ☐ Leader
- ☐ Monitor
- ☒ Entrepreneur
- ☒ Disturbance handler
- ☒ Resource allocator
- ☒ Negotiator

8. Enumerate the phases of the decision-making process after Simon. *

- ☒ Intelligence
- ☐ Analysis
- ☒ Design
- ☐ Projection
- ☒ Choice
- ☒ Assessment
- ☒ Feed-back

9. What means Predictive BI? *

- ☐ Ad-hoc reporting
- ☒ Statistical Analysis
- ☒ Data Mining
- ☐ Management Science

10. What means Reporting / Descriptive BI? *

- ☒ Visualization
- ☒ Ad-hoc reporting
- ☐ Data Mining
- ☐ Management Science

11. What means Prescriptive BI? *

- ☐ Visualization
- ☐ Statistical Analysis
- ☒ Management Science
- ☒ Models and solutions

12. Check the correct components of a DSS. *

- ☒ Decision Maker / Manager
- ☒ User Interface
- ☒ Data Management
- ☒ Model Management

13. Select the correct key characteristics of DSS. *

- ☐ support for structured problems
- ☒ support for semi-structured or unstructured problems
- ☒ interactive
- ☐ hard to use
- ☒ easy to develop by end-users

14. Herbert Simon is well-known: *

- ☒ for the theory of bounded rationality
- ☐ as director of the Center for Adaptive Behavior and Cognition-Max Planck Institute for Human Development
- ☒ for receiving the Nobel Prize in Economics in 1978
- ☒ for receiving the Turing Award in 1975

15. Check the correct features of BI&A (Business Intelligence & Analytics) 1.0 *

- ☐ Internet and Web
- ☐ Mobile Devices
- ☐ Internet of things

16. Check the correct features of BI&A2.0 *

- ☐ RDBMS
- ☐ ETL
- ☐ OLAP and simple reporting tools
- ☒ triggered by advances in Internet and Web technologies
- ☒ triggered by advances in text mining, web search engines, and e-commerce development

17. Check the correct features of BI&A3.0 *

- ☒ large scale use of mobile devices
- ☒ effective data collection enabled by IoT
- ☐ triggered by advances in Internet and Web technologies
- ☐ OLAP and simple reporting tools

18. BI tools are *

- ☒ constructed with commercially available tools and components
- ☐ constructed for very unstructured problems
- ☐ constructed for specific requirements but they require more programming because of customization needs

19. In terms of KPIs, we can distinguish between: *

- ☒ quantitative indicators
- ☒ directional indicators
- ☒ actionable indicators
- ☒ financial indicators
- ☒ practical indicators

20. In terms of OLAP, DAX stands for:

- ☒ Data Analysis eXpressions
- ☐ Data Analysis index
- ☐ Deutscher Aktien index
- ☐ Data & Cross(X) Analysis

21. The RELATED function in PowerPivot is.. *

- ☐ easier to use than the Excel function VLOOKUP
- ☐ more difficult to use than the Excel function VLOOKUP
- ☐ more difficult to use than SQL queries with JOIN clauses
- ☐ easier to use than SQL queries with JOIN clauses



22. X 33% ! 67% V. Percentages in this formatting rule create.. *

- ☒ thresholds (as $\text{Min.Val.} + \% \times \text{Amplitude}$) for generating the formatting symbols "X", "!" and "V"
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23. Discretization in Data Mining means *

- ☒ to convert continuous valued numerical variables to ranges and categories
- ☐ to convert ranges and categories to continuous valued numerical variables
- ☐ to respect the principle of non-transparency in the design of data processing algorithms
- ☐ not to attract attention

24. Point out the correct differences between Data Mining and Statistics:

- ☐ both look for relationships within data
- ☒ Statistics starts with a well-defined hypothesis while DM starts with a loosely defined one
- ☐ DM starts with a well-defined hypothesis while Statistics starts with a loosely defined one
- ☒ Statistics collects a data sample while DM use all of the existing data
- ☐ DM collects a data sample while Statistics use all of the existing data

25. Why are the following value pairs for Time Stamp and Value (202012,350.125;202101,375.275;202102,400;202103,450) not suitable for reliable time-series predictions?

- ☐ too many decimal points
- ☒ inconsistent definition of the time unit and artificial gaps on the X axis
- ☐ inconsistent separators
- ☐ lack of categorical representation of variables