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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Descriptive Analytics for IoT   **Semester: VII**
Program: BTech-CSE-Spz-IOT & SC   **Time   : 03 hrs.**
Course Code: CSEG498   **Max. Marks: 100**

Instruction: Attempt all questions. Internal choice is given, whereever applicable.

SECTION A

S. No.		Marks	CO
Q 1	Differentiate between OLAP and OLTP.	**4**	**CO1**
Q 2	Briefly describe the cycle of business intelligence analysis.	**4**	**CO3**
Q 3	Describe the architecture of data warehouse.	**4**	**CO4**
Q 4	Explain the OLAP operations with the help of an example.	**4**	**CO1**
Q 5	Explain *star, snowflake* and *galaxy schema* with the help of an example.	**4**	**CO2**

SECTION B

Q 6	Describe the components of a business intelligence system.	**10**	**CO3**
Q 7	Define metadata. Explain the *dimension table* and *fact table* with the help of an example.	**2+8 =10**	**CO1**
Q 8	Define decision support system. Differentiate between an *open system* and a *closed system*. Describe the abstract representation of a system.	**2+3+5 =10**	**CO2**
Q 9	Explain the logical structure of the decision-making process.	**10**	**CO2**

OR

Q 9	Describe the phases of the decision-making process.	**10**	**CO2**

SECTION-C

Q 10	Explain the phases in the development of a business intelligence system in detail.	**20**	**CO3**
Q 11	(a) Define data warehouse. (b) Explain the relation between OLAP and data warehouse. (c) Differentiate among internal, external and personal data in a data warehouse. (d) *"There are several reasons for implementing a data warehouse separately from the databases supporting OLTP applications in an enterprise"* - Give relevant reasons in support of the above line.	**3 + 2+ 8 + 7 = 20**	**CO4**

	OR		
Q 11	(a) Explain the characteristics of a data warehouse. (b) *"A data warehouse can be defined as a collection of data supporting decision-making processes and business intelligence system"*- How decision-making processes and business intelligence helps data warehouse? explain in detail.	**10+10 =20**	**CO4**