UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec 2024

Course: MBA OG   **Semester:** III
Program: Advance IT Applications in Oil & Gas
Time: 03 hrs.
Course Code: DSIT7010P   **Max. Marks:** 100

Instructions:

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO

Q 1	Expand the followings terms
	    a. ESCADA.........
	    b. SMP.......
	    c. MPP.......
	    d. OSDU...........
		2	CO1

Q 2	*Fill in the blanks* GIS combines the............and .... data in creating maps.	2	CO1
Q 3	*True or False?* ArcGIS is a product of Intergraph corporation.	2	CO1
Q 4	What are HDFS and YARN in Big Data Solutions?	2	CO1
Q 5	What are the different classes of drilling rigs?	2	CO1
Q 6	What is the function of a sucker Rod pump?	2	CO1
Q 7	Define UNIX OS	2	CO1
Q 8	Define OpenSpirit concept....	2	CO1
Q 9	Technology adoption follows a pattern described as an *S curve- Explain this statement.*	2	CO1
Q 10	What is a Shape file?	2	CO1

SECTION B
4Qx5M= 20 Marks

Q 1	Describe the concept of *Digital Rock*. How it helps operators in improving production efficiency?	5	CO2
Q 2	Describe the **Oilfields (Regulation and Development) Amendment Bill, 2024** introduced by India and how it aims to ensure policy stability for oil and gas producers?	5	CO2
Q 3	The global high impact well count decreased to .... wells in 2023, down from........ Wells in 2022. This, despite an oil price of over $100/bbl in 2022, which would normally have fed through into higher exploration spending the following year. The link between oil prices and drilling that	5	CO2

	has held for many years may finally have been broken – ***Describe the important reasons for this non correlation.***		
Q 4	Describe the SOLAS Convention and IMO IGC Code for transportation of liquefied gases.	**5**	**CO2**
SECTION-C **3Qx10M=30 Marks**			
Q 1	1, Describe the Digital Trends in oil & Gas. 2. Describe the digital investments in oil & gas sector with focus areas inf current and over 3 -5 years period.	**10**	**CO3**
Q 2	Describe the use of ERP system in Oil & Gas Industry. Explain the SAP Modules -MM, SD and IS- Oil used by oil companies.	**10**	**CO3**
Q 3	New digital technologies combined with data driven insights can transform operations, boosting agility and strategic decision making – *How do you defend this with supporting arguments?*	**10**	**CO3**
SECTION-D **2Qx15M= 30 Marks**			
Q 1	Describe the concepts of **smart wells** and **smart fields**. How upstream companies are adopting the integrated Digital Oil Fields technology. Describe the case of one *Digital oil field*.	**15**	**CO4**
Q 2	Describe some of the widely used software and platforms in oil and gas sectors with their applications. Describe the case implementation of "**STARDOM and FAST/TOOLS Integrated SCADA Solution for Indian Oil Corporation's Multiproduct Oil Pipeline (CBPL)**"	**15**	**CO4**