UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2023

Course: MBA OG   **Semester:** II
Program: Advance IT Applications in Oil & Gas
Time: 03 hrs.
Course Code: DSIT 7010   **Max. Marks:**100

Instructions:

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO

Q 1	*Expand the followings abbreviations*
	    a. PIDX............
	    b. PPDM............
		2	CO1

Q 2	*Fill the blanks* GIS tools provide the means to integrate data within a .... and ....context.	2	CO1
Q 3	*Fill the blanks* GIS combines the............and ....data in creating maps.	2	CO1
Q 4	*True or False?* Asset monitoring is carried out using IOT.	2	CO1
Q 5	*True or False?* ArcGIS is a product of Intergraph corporation.	2	CO1
Q 6	*Fill the blanks* Real time systems are those, which must produce the..............response within, the .... or defined time limit.	2	CO1

Q 7	*Multiple choice question*
	Identify the incorrect parameter of the intelligence
	    a. Reasoning
	    b. Problem solving
	    c. Perception
	    d. Skill
		2	CO1

Q 8	Define the following terms,
	    a. OASIS
	    b. SQL
		2	CO1

Q 9	*Multiple choice question*
	Identify the missing objective of the PPDM work group used to develop the data
	    a. All types of seismic data
	    b. Conventional data
	    c. 3D data
	    d. Single component recording
		2	CO1

Q 10	Name the two most commonly used datums in North America in GIS framework.	2	CO1

	SECTION B 4Qx5M= 20 Marks		
Q 1	Describe "*API SPECIFICATION 6A, 21st EDITION*" of the American Petroleum Institute.	**5**	**CO2**
Q 2	What is "*Plug and Pert Completion"* in oil wells?	**5**	**CO2**
Q 3	Explain *"Mud pulse telemetry"*	**5**	**CO2**
Q 4	What are the challenges in High Performance Computing?	**5**	**CO2**
	SECTION-C 3Qx10M=30 Marks		
Q 1	Describe the growth of HPC in oil industry and the supercomputer HPC 5 with its peak processing power and ability to significantly reduce *time- to- first oil*.	**10**	**CO3**
Q 2	Describe the SAP module *IS- Oil & Gas* and how it is being used by petroleum industry?	**10**	**CO3**
Q 3	Define Big Data and its five main characteristics. What are the technologies related to storage and processing of the Big Data?	**10**	**CO3**
	SECTION-D 2Qx15M= 30 Marks		
Q 1	Explain the *smart value loop and smart / intelligent oil fields*? Write the case implementation of one digital oil fields in Offshore Brazil and its net improvement on field cost and production profile.	**15**	**CO4**
Q 2	a. Give two used cases of the "*Drones coming to oil patches*" b. How use of drones help petroleum companies in flare stack inspection, pipeline leak monitoring and DART assisted 3D seismic data acquisition?	**15**	**CO4**