

Name:
Enrolment No:



UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

Online End Semester Examination – May, 2021

Program/course: MBA (OG)

Subject: Advance IT Applications For Oil & Gas Industry

Code: DSIT7010

No. of page/s: 3

Semester : II

Max. Marks : 100

Duration : 3 Hrs.

All questions shall be strictly answered in chronological order.

SECTION A

Each question carries 5 marks

Attempt all questions

[30 Marks]

Q.1	Expand and define the followings Terms. a. SAGD..... b. OCR..... c. NLP..... d. UTM..... e. FERC.....	1 x 5 =5	CO1
Q.2	.Describe SAP as ERP system for Oil & Gas Industry. Define the 3 main modules of SAP used by Oil & Gas Industry.	5	CO1
Q.3	.Describe the main world geodetic systems. What are the spheroid parameters of WGS 1984?	5	CO1
Q.4	Define LWD/ MWD techniques in drilling wells. What is wireless drill pipe telemetry system?	5	CO1
Q.5	Describe HPC technology in seismic data processing. What are the main characteristics of HPC5 super computing system?	5	CO1
Q. 6	“Drones are coming to the oil patch” How do you see this narration in respect to oil field operations?	5	CO2

SECTION B

Each question carries 10 marks

Attempt all questions

[50 marks]

Q.7	Describe the <i>Flare Stack</i> and the flow diagram depicting the typical components of an overall industrial flare stack system	10	CO2
Q. 8	a. Describe the concepts of E-Procurement, E-Tendering, Auctions and Reverse Auctions. b. Give examples of various E-Business platforms deployed in Petroleum industry.	5 x 2=10	CO3
Qs. 9	.Define the characteristics of <i>Big data</i> . Define the following data types with examples across oil and gas industry, a) Structured data b) Semi structured data c) Unstructured data	10	CO3
Q.10	Define the <i>Apache Hadoop architecture</i> and how its implementation helps Oil & Gas companies in efficient, cost effective operations?	10	CO4
Q.11	a. Describe the five industry segments of the American Petroleum Institute (API). b. Describe the following code and its relevance, API SPECIFICATION 6A API SPECIFICATION 6A, 21 st EDITION	5 x 2=10	CO4
<u>SECTION C</u>			
The question carries 20 marks Attempt any one of the two questions		[20 marks]	
Q.12	Explain the smart field “value loop” and the size of the digital prize in oil & gas sector.. How the “digital oil fields” help operators to achieve cost and efficiency gains. OR Define the <i>Distributed Acoustic Sensing (DAS)</i> technology and how it is being used in oil fields for downhole monitoring and production surveillance?	20	CO5