



Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination-Chance 2, July, 2020

Course: Oil Field Asset management

Semester : VIII

Program: B. Tech. APE UPSTREAM

Time : 03 hrs.

Course Code : MDSO 344

Max. Marks : 100

Nos. of page(s) : 4

Instructions: All Questions are Mandatory.

Section- A MCQ, T/F and Fill in the Blanks.

Section- B Answers required in few sentences without diagram. 4 questions are compulsory 1 question has internal choice

Section- C 1 Question compulsory with internal choice. Descriptive without Diagram.

| Sl. No. | Statement of question | Marks |
|------------------|---|------------------|
| SECTION A | | |
| Q 1 | <p><u>Tick the correct answer. Each MCQ carries ONE marks.</u></p> <p>i) What is risk?</p> <p>a) Negative consequence that could occur</p> <p>b) Negative consequence that will occur</p> <p>c) Negative consequence that must occur</p> <p>d) Negative consequence that shall occur</p> <p>ii) Who is responsible for Risk management</p> <p>a) Senior Management</p> <p>b) Chief Information officer</p> <p>c) Systems and Information Owners</p> <p>d) All of above</p> <p>iii) Which of the following technique will ensure that impact of risk will be less?</p> <p>a) Risk avoidance technique</p> <p>b) Risk Mitigation technique</p> <p>c) Risk contingency technique</p> <p>d) All of the above</p> | CO1 5 |

| | | |
|-----|--|----------|
| | <p>iv) The regulator for gas transportation in India is a) Directorate General of Hydrocarbons b) Petroleum and Natural Gas Regulatory Board c) Ministry of Petroleum and Natural Gas d) None of these</p> <p>v) The major part of crude oil imports for India during 2018-19 came from a) Saudi Arabia b) Iran c) Iraq d) USA</p> | |
| Q 2 | <p><u>FIB question a) carries ONE marks and b) carries FOUR marks.</u></p> <p>a) ----- look at how a specific organization could maximize its production and capacity, minimize its operating cost so it could lower prices, and better compete in its industry.</p> <p>b) The Process of -----Identification, ----- Analysis, ----- -- Analysis, ----- and Communication and ----- and Action are involved in ----- Risk Analysis.</p> | CO2 5 |
| Q 3 | <p><u>FIB question a) carries TWO marks and b) carries THREE marks.</u></p> <p>a) -----with permanent down hole measurement equipment or -----, and especially those with both, are nowadays known as ----- or ----- wells;</p> <p>b) ----- entity, ----- Measurement/stable monetary unit, ----- Concern, ----- Cost -----/conservatism and ----- are few constituents of -----</p> | CO2 5 |
| Q 4 | <p><u>FIB question a) carries Three marks and b) carries Two marks.</u></p> <p>a) -----or 4-D technology is the name given to repeatedly shooting -----surveys in the field at different ----- after significant volume of hydrocarbons have been ----- in an attempt to detect the movement of ----- through the -----.</p> <p>b) These key elements like Establish a hierarchy of decisions, Develop and design the system architecture , Use the system to conduct a -----risk analysis, Build a structure to support the system and Focus on the impact belong to -----</p> | CO1 5 |

| | | |
|-----|---|-----------|
| Q 5 | <p><u>Tick the correct answer. Each True/False carries ONE marks.</u></p> <p>a) Risk analysis will eliminate risk in the decision making process (True/ False)</p> <p>(b) Post Drill assessments, performance tracking is a part of Exploration Evaluation Process (True/False)</p> <p>(c) P90 is the value on the distribution for which there is a 90% probability (True/False)</p> <p>(d) Containment is not an independent chance factor multiplied together to yield Pg. (True/False)</p> <p>(e) P 50 reserve is also known in the industry as 3P. (True/False)</p> | CO1 5 |
| Q 6 | <p>Tick the correct answer. Each True/False carries ONE marks.</p> <p>a) In India, as a result of National Exploration Licensing Policy (NELP) rounds of bidding, the participation of private players in the exploration and production activities has increased. (True/False)</p> <p>b) Analysis of series of connected decisions is called Sensitivity Analysis (True/False)</p> <p>(c) Under the Open Acreage Licensing Policy, any exploration and production company can bid for an exploration block of its own choice round the year (True/False)</p> <p>(c) Horizontal wells are most suitable for the production of thin lenticular reservoirs (True/False)</p> <p>(d) Reorder Point(ROP) is the level of inventory which triggers an action to replenish that inventory stock (True/False)</p> | CO3 5 |
| Q 7 | <p>a)What are the factors related with estimation of HC resource (3Marks)</p> <p>b)How an Asset Management Plan helps in optimization of an oil & gas asset (3Marks)</p> <p>c) Discuss Categories of Risk (4Marks)</p> | CO2 10 |

| | | |
|------|--|-----------|
| Q 8 | <p>a) Why need of decision analysis in petroleum industry? (3 Marks)</p> <p>b) What decision should be taken by an Oil & Gas exploration company under the given scenario</p> <p style="text-align: center;">Probability of a successful well is 0.6.</p> <p style="text-align: center;">Two decision alternatives: Farm out: Producer's return is worth \$50,000, a dry hole causes no profit or loss. Drilling the well: A dry hole costs \$200,000, a hit brings (after all costs) \$600,000 (All outcomes in \$)</p> <p style="text-align: right;">(7Marks)</p> | CO1 10 |
| Q 9 | <p>Write short notes on any two (5 Marks each)</p> <p>a) Knowledge Management in Oil & Gas Industry</p> <p>b) How can you utilize Big Data Analysis in Upstream activities</p> <p>c) How the SCADA system improves efficiency in upstream activities</p> | CO3 10 |
| Q 10 | <p>(a) Discuss in detail the Accounting Concepts for petroleum industry (7Marks)</p> <p>(b) Describe EOQ model of Inventory Control. (3Marks)</p> | CO3 10 |
| Q 11 | <p>(a) What are the elements of Fiscal Systems (4Marks)</p> <p>(b) Types pf Petroleum Licensing system (3Marks)</p> <p>(c) Characteristics of a Joint Venture (3Marks)</p> | CO4 10 |
| Q 12 | <p>(a) What are the key areas within upstream Oil & Gas activities that will benefit from an accelerated digital transformation? (10Marks)</p> <p>(b) How the current crude oil price volatility impact economy of India (10Marks)</p> <p style="text-align: center;">OR</p> <p>Describe the fundamental Well costing in Upstream Petroleum Industry (20 Marks)</p> | CO4 20 |