

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Programme Name: B. Tech (Mining Engineering)

Semester : VII

Course Name : Mine Management

Time : 03 h

Course Code : MIEG 413

Max. Marks : 100

Nos. of page(s) : 2 (*two*)

Instructions : Answer any **10 (ten)** from Section A;
Answer any **5 (five)** from Section B;
Section C is **compulsory**;

Use figures/ tables/ flowchart when required; Do not split answers; Use legible writing; Avoid self-striking of pages.

SECTION A (Total Marks: 30)

S. No.		Marks	CO
1.	<i>Drilling blastholes</i> operation comprises of certain actions. List actions?	3	CO1
2.	Give suitable figure for Functional Structure?	3	CO3
3.	Economies of scale says <u>a proportionate saving in costs gained by an increased level of production</u> . Do you recommend Economies of scale for Functional Structure? Justify?	3	CO3
4.	Where can we observe <i>Decentralization of Decision Making</i> as a Strength? Comment?	3	CO4
5.	If Supervisor's responsibility is to attend needs for good communication; developing an open communications "climate", what will a manager do?	3	CO1
6.	What is a <i>Bullwhip Effect</i> ? Use suitable figure?	3	CO4
7.	Reflect upon Geographic structure of organizations in the Mining Industry? Use Figure?	3	CO3
8.	Statement: Integration and standardization across different mining locations is difficult in Divisional Structures? Do you agree/ disagree? Evaluate the choice?	3	CO3
9.	In Administrative Management, comment on specific difference between Commercial Activities and Accounting Activities?	3	CO1
10.	What is the purpose of Unity of Command? How will it help an organization?	3	CO3
11.	Taking an example of Gold Mining list key components of value chain?	3	CO4
12.	Critique on the importance of Training & Development in Mining Industry?	3	CO2
13.	Evaluate Human-Environment Relation? In which domain of Mining Industry, this is more significant and is desirable?	3	CO2
14.	Comment on the role of Rules & Regulations in Bureaucratic Management?	3	CO1
15.	What is Theory of Planned Behaviour?	3	CO2

SECTION B (Total Marks: 50)

16.	Statement: In Quantitative Approach, Management is concern with problem solving using mathematical tools. How will you relate this statement in the following divisions of Mining Industry? a) Supply Chain Management? b) HR Management? c) Fatigue Management?	4+4+2	CO4
17.	a) In comparison to Theory of Reasoned Action, how Theory of Planned Behaviour imporved? b) What is the importance of Theory of Planned Behaviour in Mining Industry?	3+7	CO3
18.	a) What is unstable demand in Supply Chain Management? Give suitable examples? b) What is Forward Linkages and Backward Linkages in Supply Chain Management	4+6	CO4
19.	To Negotiate: To “Negotiate” is to arrange or settle by conferring or discussing; or to use information and/or power to affect human behavior in an environment filled with multiple issues and tensions. a) What information is helpful in Negotiating with Corporate Mining Company on increasing the monthly salaries by a Mine Surveyor Team? b) If you happen to be the member of Corporate Management Team, what do you expect from Mining Surveyors?	5+5	CO2
20.	a) Critique on why ‘randomness’ in Supply Chain Management takes place? b) Compare role of Road, Ses and Air-transport in Mining Industry?	3+7	CO4
21.	a) According to theory, what does ERP promise in Mining Industry? b) Among the seven Trends for the Future of Mining Automation, develop favourable arguments on the importance of Image and Video as Process Tools?	3+7	CO2
22.	Differentiate Risks and rate them for a) Mining Industry and b) Manufacturing Industry?	10	CO2

SECTION C (Total Marks: 20)

Hitachi Construction Machinery commenced production in Indonesia and Malaysia in 1991 in partnership with local investors. P.T. Hitachi Construction Machinery Indonesia (HCMI) subsequently made good progress, producing not only medium-sized excavators but also welded structures, modules for very large excavators, and other components for supply to other facilities. Telco Construction Equipment Co., Ltd., a joint venture in India with Tata Motors Limited, was launched in 1999. While Hitachi Construction Machinery only had a 20% stake to begin with, it increased this to 40% in 2005 and 60% (majority ownership) in 2010. A new plant on a site of approximately 1,000,000 m² was established in Kharagpur in eastern India in 2009, becoming a major plant supplying medium-sized hydraulic excavators not only to the Indian domestic market but also (from 2014) to the Middle East, Africa, and elsewhere.

Source: https://hitachi.com%2Frev%2Fpdf%2F2015%2Fr2015_07_108.pdf&usg=AOvVaw1fYkftudGG0J_C2Ycypbdc

23.	What is the growth strategy for Hitachi in South East Asia? Why such strategy should be better for its growth?	05	CO2
24.	Between Functional and Divisional structures, hypothesize one structure for better growth of Hitachi Construction Machinery? Support your arguments in the favour of chosen	15	CO3

hypothesis?		
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Name of Examination <small>(Please tick, symbol is given)</small>	:	<input type="checkbox"/> MID	<input type="checkbox"/> NA	<input type="checkbox"/> END	<input checked="" type="checkbox"/>	<input type="checkbox"/> SUPPLE	<input type="checkbox"/> NA
Name of the School <small>(Please tick, symbol is given)</small>	:	<input type="checkbox"/> SOE	<input checked="" type="checkbox"/>	<input type="checkbox"/> SOCS		<input type="checkbox"/> SOP	
Programme	:	B. Tech (Mining Engineering)					
Semester	:	VII					
Name of the Course	:	Mine Management					
Course Code	:	MIEG 413					
Name of Question Paper Setter	:	Dr. V. L. Narasimham					
Employee Code	:	40000289					
Mobile & Extension	:	9634627546					
Note: Please mention additional Stationery to be provided, during examination such as Table/Graph Sheet etc. else mention "NOT APPLICABLE":							
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Note: - Pl. start your question paper from next page

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SECTION A (Total Marks: 30)

S. No.		Marks	CO
1.	What is the implication of Unity of Direction? How will it help an organization?	3	CO1
2.	Draw neat sketch and identify different components of mining value chain?	3	CO3
3.	Critique on the importance of Operations in Mining Industry?	3	CO3
4.	How to strengthen Mine Safety using Human-Environment framework?	3	CO4
5.	In which scale of Mining operations, Bureaucratic Management is more appropriate? Justify?	3	CO1
6.	Which division of Mining Industry dependent on Theory of Planned Behaviour? Comment?	3	CO4
7.	List advantages of Quantitative Approach in Mining Industry?	3	CO3
8.	What is the role of Feedback in System Approach? Use Figure?	3	CO3
9.	Do you see fall in the demand of coal during monsoon? What does it signify in Supply Chain?	3	CO1
10.	How do you rate Productivity improvement from Overall Productivity improvement when ERP is used in the Mining industry?	3	CO3
11.	Identify Characteristics of Good Information in Mining Industry?	3	CO4
12.	Where do you expect role for 'Teams'? Horizontal Linkages or in Vertical Linkages? Justify?	3	CO2
13.	Identify crucial parameters that differentiate a) Mining Industry from b) Manufacturing?	3	CO2
14.	Which Structure enables Economies of scale (EoS) more? Divisional or Functional? Justify?	3	CO1
15.	How Centralized Decision Making differs from Decentralization of Decision Making?	3	CO2

SECTION B (Total Marks: 50)

16.	To Negotiate: To “Negotiate” is to arrange or settle by conferring or discussing; or to use information and/or power to affect human behavior in an environment filled with multiple issues and tensions. a) Give suitable preparedness needed in Negotiating with Corporate Mining Company? b) If you happen to be the member of Corporate Management Team, give suitable points you want to negotiate with the absenteeism of Mining Engineers due long commuting?	5+5	CO4
17.	Statement: In Quantitative Approach, Management applies mathematical tools. How will you relate this statement in the following divisions of Mining Industry? a) Mine Machinery Performance? b) HR Management? and c) Supply Chain Management?	4+3+3	CO3
18.	a) What is Forward Linkages and Backward Linkages in Supply Chain Management? b) Compare Supply Chain Linkages using Mining and Mineral Processing Industry?	4+6	CO4
19.	a) According to theory, what does ERP promise in Mining Industry? b) Among the seven Trends for the Future of Mining Automation, develop favourable arguments on the importance of Autonomous Systems?	3	CO4
20.	Compare Classical - Behavioural - and - Scientific Management theories? Which Theory is suitable in Mining Industry? Give Rating based on your Industry visit?	6+4	CO3
21.	What are different Transport Mechanisms in the Mining Industry? Compare Transport Mechanisms of Mining Industry with Manufacturing Industry?	3+7	CO1
22.	Which domain of Mining Industry is suitable to understand Theory of Planned Behaviour? Hypothesize Mining Industry problem and suggest suitable action plan using Theory of Planned Behaviour?	3	CO2

SECTION C (Total Marks: 20)

Fuel Management: Securing Value Across India's Coal Supply Chain Optimal infrastructure

Most quantity losses occur for three reasons:

- Handling losses during discharge of coal resulting from manual loading operations instead of mechanical, incomplete bottom cargo clearance, and high volumes of coal dust at the time of discharge
- Windage losses during storage because of a lack of wind breakers, stacks not oriented for wind to move along their length, and improper sprinkling and dust-suppressing practices
- Pilferage during long-distance road or rail transportation (limited by the high costs of monitoring pilferage)

Building a completely mechanized process to control losses requires infrastructure investments at multiple stages, such as a closed conveyor, wagon tippler, and stackers and reclaimers. Despite the initial costs, these investments offer an attractive return. Additionally, defining clear SOPs for coal-handling processes, training on-the-ground staff, and using coal binders to manage coal fines can help prune losses. Tracking and monitoring node quantity losses throughout the supply chain is essential.

23.	List different disciplines of Mine Management from the paragraph?	05	CO1
24.	Between Functional and Divisional structures, which one will you choose for better functioning of Fuel Management? Support your arguments through scoring both structures?	15	CO3