

**Department of Mechanical Engineering
Chittagong University of Engineering and Technology (C U E T)**

Level 4, Term-II, Examination 2023

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 06/05/2025	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Marks

Section: A

- | | | |
|------|--|-----|
| 1 a) | Write down the concept of the term 'industrial Management'. State the characteristics, importance and objectives of management. | 20 |
| b) | How to apply scientific management in any organization? Explain. | 13 |
| c) | Describe Gilberth's contribution to management theory focusing on their motion and time studies and their on workplace efficiency. | 13% |
| 2 a) | In top management Managers are spending less time for technical skill. So, would you think a manager could become excellent with poor technical skill? | 15 |
| b) | Mention the guidelines for setting objectives in MBO | 10 |
| c) | Make a comparison between consensus decision making and that of unilateral. | 10 |
| d) | Prepare the various quadrants of SWOT matrix and explain: | 11% |
| | (i) How a manager could leverage the strength in new ways? | |
| | (ii) What obstacles or challenges could he face? | |
| 3 a) | Do you think an organizational structure should be developed with both narrow and wide "span of control"? Justify your opinion with mentioning the the advantages and disadvantages of each type of span of control. | 18% |
| b) | What is the difference between authority and power? Write the source of authority? Can the following be delegated? i) Authority, ii) Power, iii) Responsibility, and iv) Accountability. Explain briefly your answer in each case. | 18 |
| c) | Write down the importance of culture to a company. Briefly discuss the qualities of a great organizational culture. | 10 |
| 4 a) | Describe the 7Ps of marketing and explain how they are used to formulate a marketing strategy. | 20 |
| b) | How industrial selling is different from personal selling? Why distribution channels are necessary in marking? – explain with proper classification. | 13 |
| c) | Explain different phases of a product life cycle graph. How marketing strategy could vary with these phases? | 13% |

Section: B

- | | | |
|------|--|-----|
| 5 a) | Define moral, morale and motivation. Does morale helps to increase productivity? How? | 15 |
| b) | How Herzberg theory differs from Maslow's theory of motivation? Discuss with proper examples. | 15 |
| c) | Why flexible working hour concept is popular now? Also illustrate the concept of time bank. | 16% |
| 6 a) | Define leadership. To whom people make someone to be leader. | 10 |
| b) | Write the sources of power for manager and leader. Also mention the ingredients of a good leader. | 16 |
| c) | Write the critical dimension of situational approach theory of leadership. Elaborate with example. | 20% |
| 7 a) | What is ratio analysis? Write the importance of various ratio in different perspective. | 10 |
| b) | Explain the thought of 'Time value of Money'. Define depreciation and depletion with example and application. | 11 |
| c) | A Garment buying a new sewing machine which can be either automatic or semi automatic. The estimate are given below: | 25% |

	Semi automatic	Automatic
First cost	9000	14000
Annual maintenance cost/yr	3600	1700
Salvage value	0	2000
Life	10	5

- | | | |
|------|--|-----|
| 8 a) | What do understand by the term job evaluation? What are its objectives? | 08 |
| b) | What is merit rating? How can the fairness and objectivity of merit rating be ensured? | 11% |
| c) | Write short notes on any three of the following: | 27 |
| | i) QWL | |
| | ii) Strategic Business Unit | |
| | iii) Social and ethical responsibility of manager | |
| | iv) Preventive and breakdown maintenance. | |

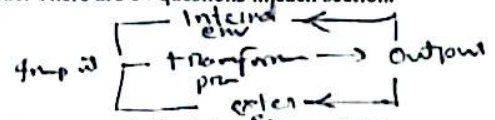
Department of Mechanical Engineering
Chittagong University of Engineering and Technology (CUET)

Level 4, Term-II, Examination 2022

Course: ME 463	Full Marks: 280	Time: 3 hours
Course Title: Industrial Management	Date: 19/02/2024	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section - A



- Q.1 (a) Define industrial management. State objectives of industrial management. Explain system approach to industrial management with suitable example. 16%
- (b) One of the functions of management is closely connected with creativity and innovation. Identify the management functions. 12
- (c) Do you think that every organization must follow the principles of management? What are the positive effects of each of the following principles of management on an organization: i) Division of work, ii) Equity, ii) Unity of direction, iii) Discipline, and v) Initiative? 18

- Q.2 (a) What is strategic management? Discuss various phases of strategic management. Why is it important? 12
- (b) Do you think hierarchy of plans help a manager to increase the growth of a company? Explain your opinion by proper addressing of hierarchy of plans. 15
- (c) What is the How-throne effect and why it is important to managers? 11%
- (d) Why organization is important and write the role of it in a organization. 08

- Q.3 (a) What do you understand by the term "consensus decision making"? how does it differ from unilateral decision making? 14
- (b) Analyze the internal and external environments of SWOT analysis. How can you turn your strength into opportunities? 14
- (c) Absolute centralization and Decentralization is not possible and not expected too - why? 13%
- (d) Distinguish between MIS and DSS with its application. 05

- Q.4 (a) How does the terms people, process and physical evidence affects marketing of a certain product? 12%
- (b) What are the various methods of direct selling? Write down the tools of sales promotion. 14
- (c) Describe a product life cycle graph. Explain how it affects the marketing decision making. 12
- (d) Write down the importance of culture to a company. 08

Section - B

- Q.5 (a) Define performance appraisal. How does an institution justify an appraisal system? 12
- (b) Differentiate between job evaluation and merit rating. How annual performance report will prepare? 13%
- (c) Write down the characteristics of authority. Explain the elements of the delegation of authority. 14
- (d) Write sort notes on fire and explosion hazards in terms to mitigation. 07

Authority
Responsibility
Accountability

- Q.6 (a) Define ratio analysis and classify it based on user choice. 13
- (b) As an executive engineer of power authority, you need to buy a generator. Following two vendors give their offer. Which one you select based on present worth (P): 20

	Vendor A	Vendor B
First cost	15000	17000
Annual operating cost/yr	3500	3100
Salvage value	1000	2000
Life	6	6

Consider 1% = 10%

- (c) Define present worth (P), Future worth (F) and develop the relationship between them. 13%
- Q.7 (i) Explain Fielders contingency theory of leadership with its critical dimension. 15
- (b) What kinds of needs motivate employees? Is a good reward good enough? How do other factors affect motivation? 14
- (c) Mention different incentive plan and explain Merrick differential plan. 10%
- (d) What is meant by ethics in management? 07

Please Turn Over

- Q.8 (a) How to manage implementation and operations of the occupational health and safety management system in a construction project? 12
- (b) Distinguish among wage, salary and incentive with example. What is fare wage? 12%
- (c) Elaborate and explain the challenges faced by personal manager in modern corporate management. 12
- (d) Write short notes on MBO (Management by objectives). 10

****End****

10%		TABLE 15. Discrete Cash Flow, Compound Interest Factors						10%	
n	Single Payments		Uniform Series Payments				Arithmetic Gradients		
	Compound Amount F/P	Present Worth P/F	Sinking Fund A/F	Compound Amount F/A	Capital Recovery A/P	Present Worth P/A	Gradient Present Worth P/G	Gradient Uniform Series A/G	
1	1.1000	0.9091	1.0000	1.0000	1.1000	0.9091			
2	1.2100	0.8264	0.47619	2.1000	0.57619	1.7355	0.8264	0.4762	
3	1.3310	0.7513	0.30211	3.3100	0.40211	2.4869	2.3291	0.9366	
4	1.4641	0.6830	0.21547	4.6410	0.31547	3.1699	4.3781	1.3817	
5	1.6105	0.6209	0.16380	6.1051	0.26380	3.7908	6.8618	1.8101	
6	1.7716	0.5645	0.12961	7.7156	0.22961	4.3551	9.6842	2.2236	
7	1.9487	0.5132	0.10541	9.4872	0.20541	4.8681	12.7631	2.6216	
8	2.1436	0.4665	0.08744	11.4359	0.18744	5.3349	16.0287	3.0045	
9	2.3579	0.4241	0.07364	13.5795	0.17364	5.7590	19.4215	3.3724	
10	2.5937	0.3855	0.06275	15.9374	0.16275	6.1446	22.8913	3.7255	
11	2.8531	0.3505	0.05396	18.5312	0.15396	6.4931	26.3963	4.0641	
12	3.1384	0.3186	0.04676	21.3843	0.14676	6.8137	29.9012	4.3884	
13	3.4523	0.2897	0.04078	24.5227	0.14078	7.1034	33.3772	4.6988	
14	3.7975	0.2633	0.03575	27.9700	0.13575	7.3667	36.8005	4.9955	
15	4.1772	0.2394	0.03147	31.7725	0.13147	7.6061	40.1520	5.2789	
16	4.5950	0.2176	0.02782	35.9497	0.12782	7.8237	43.4364	5.5493	
17	5.0545	0.1978	0.02466	40.5447	0.12466	8.0216	46.5519	5.8071	
18	5.5599	0.1799	0.02193	45.5992	0.12193	8.1914	49.6005	6.0526	
19	6.1159	0.1635	0.01955	51.1591	0.11955	8.3449	52.5827	6.2861	
20	6.7275	0.1486	0.01746	57.2750	0.11746	8.4836	55.4999	6.5081	
21	7.3992	0.1351	0.01562	63.9975	0.11562	8.6087	58.3465	6.7189	
22	8.1363	0.1228	0.01401	71.3627	0.11401	8.7215	60.6893	6.9189	
23	8.9443	0.1117	0.01257	79.4130	0.11257	8.8212	62.4662	7.1085	
24	9.8297	0.1017	0.01130	88.2973	0.11130	8.9087	64.4513	7.2881	
25	10.8000	0.0923	0.01017	98.0471	0.11017	9.0770	66.6964	7.4580	
26	11.8728	0.0839	0.00916	108.7118	0.10916	9.2169	69.2490	7.6186	
27	13.0556	0.0763	0.00826	120.3299	0.10826	9.3322	71.7773	7.7704	
28	14.3531	0.0693	0.00745	133.0099	0.10745	9.4266	74.6495	7.9137	
29	15.7711	0.0630	0.00673	146.7609	0.10673	9.5066	77.4146	8.0489	
30	17.3334	0.0573	0.00608	161.6940	0.10608	9.5769	80.0765	8.1762	
31	19.0443	0.0521	0.00550	177.8433	0.10550	9.6390	82.6395	8.2962	
32	20.9138	0.0474	0.00497	195.2438	0.10497	9.6924	85.1078	8.4091	
33	22.9552	0.0431	0.00450	213.9435	0.10450	9.7384	87.4856	8.5152	
34	25.1727	0.0391	0.00407	233.9977	0.10407	9.7786	89.7773	8.6149	
35	27.5824	0.0356	0.00369	255.4644	0.10369	9.8142	91.9872	8.7086	
36	30.1905	0.0321	0.00326	278.3926	0.10326	9.8471	94.1205	8.7962	
37	32.9995	0.0288	0.00289	302.8433	0.10289	9.8786	96.1819	8.8789	
38	35.9999	0.0257	0.00257	328.8799	0.10257	9.9090	98.1764	8.9569	
39	39.1959	0.0228	0.00228	356.5699	0.10228	9.9386	100.1089	9.0304	
40	42.5931	0.0201	0.00201	385.9711	0.10201	9.9676	101.9844	9.0997	
45	72.8905	0.0137	0.00139	718.9048	0.10139	9.8628	92.4548	9.3740	
50	117.5009	0.0085	0.00086	1163.91	0.10086	9.9148	94.8889	9.5704	
55	189.0591	0.0053	0.00053	1880.59	0.10053	9.9471	96.5619	9.7075	
60	304.4816	0.0033	0.00033	3034.82	0.10033	9.9672	97.7010	9.8023	
65	490.3707	0.0020	0.00020	4893.71	0.10020	9.9796	98.4705	9.8672	
70	769.7470	0.0013	0.00013	7887.47	0.10013	9.9873	98.9870	9.9113	
75	1271.90	0.0008	0.00008	12709	0.10008	9.9921	99.3317	9.9410	
80	2048.40	0.0005	0.00005	20474	0.10005	9.9951	99.5606	9.9609	
85	3298.97	0.0003	0.00003	32980	0.10003	9.9970	99.7120	9.9742	
90	5113.02	0.0002	0.00002	51120	0.10002	9.9981	99.8118	9.9831	
95	8556.68	0.0001	0.00001	85557	0.10001	9.9988	99.8771	9.9889	
96	9412.34	0.0001	0.00001	94113	0.10001	9.9989	99.8874	9.9898	
98	11389	0.0001	0.00001	11389	0.10001	9.9991	99.9052	9.9914	
100	13781	0.0001	0.00001	13781	0.10001	9.9993	99.9202	9.9927	

Department of Mechanical Engineering
Chittagong University of Engineering and Technology (C U E T)
Level 4, Term II Examination 2021

Course No: ME 463	Full Marks: 210	Time: 03 hours
Course Title: Industrial Management	Date: 12 / 02 / 2023	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Marks

Section: A

1. a) What is meant by the term "Industrial Management"? Write down the major application of industrial management. 10 $\frac{2}{3}$
 b) One of the basic skills of managers is communication. Do you think this skill is essential in all levels of management? Justify your answer. 16
 c) Explain the contribution of F. W. Taylor in the development of management thought? Briefly mention the steps of applying scientific management in the workplace. 20

2. a) Explain the various phases of strategic management. Why is it important for any industry? 13
 b) Discuss the shortcomings of MBO. What measure would you suggest to overcome them? 15
 c) Write the main theme of matrix organization and strategic business unit. 18 $\frac{2}{3}$

- ~~3.~~ a) Schematically show the line and staff authority. Explain the merits and demerits of line and staff organization. 16 $\frac{2}{3}$
 b) A successful company usually practices the combination of centralization and decentralization process. Why? Justify your answer. 10
 c) What is organizational culture? Explain the qualities of a great organizational culture. How can you develop culture in your organization? 20

4. a) Mention 7 Ps of marketing? Explain any four of them. 14
 b) Products have life cycles. Consider the following products and put them into the appropriate segment of life cycle graph. 12 $\frac{2}{3}$
 (i) Fossil fuel based private car
 (ii) Pepsi
 (iii) Bluetooth device
 What should be the marketing strategies of these products?
 c) Explain the characteristics of industrial sales. How it differs from consumer selling? Classify patent. 20.

Section: B

- ~~5.~~ a) Differentiate among moral, morale and motivation with relevant example. 12
 b) Explain theory of X and theory of Y assumption with respect to worker and manager perspective. 14 $\frac{2}{3}$
 c) Under what circumstances "Management theory of exception" would be appreciated to apply. 10
 d) Define ratio analysis. Write the importance and drawbacks of ratio analysis. 10

6. a) What is managerial grid? Suppose you are the CEO of a multinational company. Using managerial grid theory, explain your management policy. 15
~~b)~~ Write the ethical responsibility as a professional engineer working in the field of mechanical engineer. Also mention social responsibility of an engineer when working as a project leader. 15
 c) Write the advantages and disadvantages of MIS and DSS in organizational management. 10
 d) "Money" is a weak motivator. Do you support it or not. 6 $\frac{2}{3}$

7. a) Write the importance of engineering economic analysis as a decision maker of an organization. 8
 b) A metallurgical engineer is considering two materials for use in a space vehicle. All estimates are made as Table below. Which should be selected on the basis of present worth comparison at an interest of 10% per year? 22

Please Turn Over

	Material X	Material Y
First Cost (\$)	15000	35000
Maintenance Cost (\$ per year)	9000	7000
Salvage value (\$)	2000	20000
Life (year)	5	5

- c) Define present worth (P), Future worth (F), Equivalent uniform annual worth (A) and Salvage value of an item or task. And develop the relationship between present worth (P) with future worth (F). 16½
8. a) Define leadership with various view points and mention the types of leadership with example. 11½
- b) Explain leadership theory as a continuum scale. 13
- c) Fielder's contingency approach theory demonstrates the leadership phenomena more appropriate way. Explain it with the dimension associated with it. 12
- d) Explain job enrichment, job enlargement and quality of working life (QWL) with suitable example. 10

*****END OF QUESTION*****

10%		TABLE 15 Discrete Cash Flow: Compound Interest Factors						10%	
n	Single Payments		Uniform Series Payments				Arithmetic Gradients		
	Compound Amount F/P	Present Worth P/F	Sinking Fund A/F	Compound Amount F/A	Capital Recovery A/P	Present Worth P/A	Gradient Present Worth P/G	Gradient Uniform Series A/G	
1	1.1000	0.9091	1.00000	1.0000	1.10000	0.9091			
2	1.2100	0.8264	0.47619	2.1000	0.57619	1.7355	0.8264	0.4762	
3	1.3310	0.7513	0.30211	3.3100	0.40211	2.4869	2.3291	0.9366	
4	1.4641	0.6830	0.21547	4.6410	0.31547	3.1699	4.3781	1.3812	
5	1.6105	0.6209	0.16380	6.1051	0.26380	3.7908	6.8618	1.8101	
6	1.7716	0.5645	0.12961	7.7156	0.22961	4.3553	9.6842	2.2236	
7	1.9487	0.5132	0.10541	9.4872	0.20541	4.8684	12.7631	2.6216	
8	2.1436	0.4665	0.08744	11.4359	0.18744	5.3349	16.0287	3.0045	
9	2.3579	0.4241	0.07364	13.5795	0.17364	5.7590	19.4215	3.3724	
10	2.5937	0.3855	0.06275	15.9374	0.16275	6.1446	22.8913	3.7255	
11	2.8531	0.3505	0.05396	18.5312	0.15396	6.4951	26.3963	4.0641	
12	3.1384	0.3186	0.04676	21.3843	0.14676	6.8137	29.9012	4.3884	
13	3.4523	0.2897	0.04078	24.5227	0.14078	7.1034	33.3772	4.6988	
14	3.7975	0.2633	0.03575	27.9750	0.13575	7.3867	36.8005	4.9955	
15	4.1772	0.2394	0.03147	31.7725	0.13147	7.6661	40.1520	5.2789	
16	4.5950	0.2176	0.02782	35.9497	0.12782	7.8237	43.4164	5.5493	
17	5.0545	0.1978	0.02466	40.5447	0.12466	8.0216	46.5819	5.8071	
18	5.5599	0.1799	0.02193	45.5992	0.12193	8.2014	49.6395	6.0526	
19	6.1159	0.1635	0.01955	51.1591	0.11955	8.3649	52.5827	6.2861	
20	6.7275	0.1486	0.01746	57.2750	0.11746	8.5136	55.4069	6.5081	
21	7.4002	0.1351	0.01562	64.0025	0.11562	8.6487	58.1095	6.7189	
22	8.1403	0.1228	0.01401	71.4027	0.11401	8.7715	60.6893	6.9189	
23	8.9543	0.1117	0.01257	79.5430	0.11257	8.8832	63.1462	7.1085	
24	9.8497	0.1015	0.01130	88.4973	0.11130	8.9847	65.4813	7.2881	
25	10.8347	0.0923	0.01017	98.3471	0.11017	9.0770	67.6964	7.4580	
26	11.9182	0.0839	0.00916	109.1818	0.10916	9.1609	69.7940	7.6186	
27	13.1100	0.0763	0.00826	121.0999	0.10826	9.2372	71.7773	7.7704	
28	14.4210	0.0693	0.00745	134.2099	0.10745	9.3066	73.6495	7.9137	
29	15.8631	0.0630	0.00673	148.6309	0.10673	9.3696	75.4146	8.0489	
30	17.4494	0.0573	0.00608	164.4940	0.10608	9.4269	77.0766	8.1762	
31	19.1943	0.0521	0.00550	181.9434	0.10550	9.4790	78.6395	8.2962	
32	21.1138	0.0474	0.00497	201.1378	0.10497	9.5264	80.1078	8.4091	
33	23.2252	0.0431	0.00450	222.2515	0.10450	9.5694	81.4856	8.5152	
34	25.5477	0.0391	0.00407	245.4767	0.10407	9.6086	82.7773	8.6149	
35	28.1024	0.0356	0.00369	271.0244	0.10369	9.6442	83.9872	8.7086	
40	45.2593	0.0221	0.00226	442.5926	0.10226	9.7791	88.9525	9.0962	
45	72.8905	0.0137	0.00139	718.9048	0.10139	9.8628	92.4544	9.3740	
50	117.3909	0.0085	0.00086	1163.91	0.10086	9.9148	94.8889	9.5704	
55	189.0591	0.0053	0.00053	1880.59	0.10053	9.9471	96.5819	9.7075	
60	304.4816	0.0033	0.00033	3034.82	0.10033	9.9672	97.7010	9.8023	
65	490.3707	0.0020	0.00020	4893.71	0.10020	9.9796	98.4705	9.8672	
70	789.7470	0.0013	0.00013	7887.47	0.10013	9.9873	98.9870	9.9113	
75	1271.90	0.0008	0.00008	12709	0.10008	9.9921	99.3317	9.9410	
80	2048.40	0.0005	0.00005	20474	0.10005	9.9951	99.5606	9.9609	
85	3298.97	0.0003	0.00003	32980	0.10003	9.9970	99.7120	9.9742	
90	5313.02	0.0002	0.00002	53120	0.10002	9.9981	99.8118	9.9831	
95	8556.68	0.0001	0.00001	85557	0.10001	9.9988	99.8773	9.9889	
96	9412.34	0.0001	0.00001	94113	0.10001	9.9989	99.8874	9.9898	
98	11389	0.0001	0.00001		0.10001	9.9991	99.9052	9.9914	
100	13781	0.0001	0.00001		0.10001	9.9993	99.9202	9.9927	

Department of Mechanical Engineering
Chittagong University of Engineering and Technology (C U E T)
Level 4, Term II Examination 2020

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 03 / 04 / 2022	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

Marks

1. a) Define management with its nature. Do you think knowledge of management is important in engineering profession? Explain in your own words. 15
- b) Write the contribution of F. W. Taylor's in a modern scientific management. What is the main reason for industrial unrest after announcing his theory? 16%
- c) What is time and motion study? Write the contribution of Frank and Lillian Gilberth in advances of management field. 15

2. a) Define manager. Distinguish the role of manager versus Leader. 11%
- b) State the "Management theory of exception". Under what circumstances you will apply this theory. 10
- c) What are the functions of management? Are they equally important for all level of managers? Explain your answer. 15
- d) Why Henry L. Gantt is famous in development of management science? 10

3. a) Define organization. Write the name of different types of organization with specific example. 16
- b) Informal organization will help to solve some specific problems, but it also creates some new problems for organization. 18%
- c) Define the term "Organogram". What information do you get from an organogram? What are the limitations of organogram? 12

4. a) Develop the relationships among administration, organization and management. Also write the purpose of different level of management in organization. 15
- b) "Absolute centralization or decentralization is not appropriate for good oeganization" – Explain why? 16%
- c) Write the sources of authority when you will perform additional duty for a particular position? Is it delegable? Justify in your response. *Authority delegation* 15

Section: B

5. a) What do you understand by "span of control"? What are the factors that determine the size of the span of control? 15
- b) What is functional authority? Explain "Matrix organization" with example. 15
- c) "Organizational culture carries an image of an organization" – Explain the statement with suitable example. 16%

6. a) Differentiate between "marketing" and "selling". 10
- b) Suppose your company is going to introduce a new baby food product in the market. What kind of promotional activity should you consider? 18%
- c) After certain period you cannot increase the market size of a particular service or product. Why? Explain your view point in terms of product life cycle. 18

7. a) What do you mean by "safety management"? Why is it an obligatory item of industrial operation? 18%
- b) Safety promotes productivity – Why? 12
- c) Define M/S. What are the components of M/S? Explain the role of M/S. 16

8. a) An engineering design solution group has purchased upgraded CAD software for \$5000 now and annual payment of \$500 per year for 6 years starting 3 years from now for annual upgrade. What is the present worth of the payments if the interest rate is 10% per year? 18%
- b) Calculate the B/C ratio for the following cash flow estimates at a discount rate of 10% per year. 18

Item	Cash flow
FW of benefits, \$	30,800,000
AW of disbenefits, \$ per year	105,000
First cost, \$	1,200,000
M & O cost, \$ per year	400,000
Life of project in year	20

- c) What is "business ethics"? Why ethical behavior is important? 10

Department of Mechanical Engineering
Chittagong University of Engineering & Technology (CUET)
Level 4, Term II Examination 2018

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 20/06/2019	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

Marks

1. a) What is management? Do you think the knowledge of management is important for professions as Mechanical Engineers? How? 16
- b) Who are the key players of administrative management theory? Write down the Fayol's 14 principles of management. $20\frac{2}{3}$
- c) Who is a manager from management point of view? What is Hawthorne effect? 10

2. a) Define authority. What do you understand by line authority and staff authority? How to cope up with multiple bosses? Explain. 17
- b) 'Absolute centralization or decentralization is not appropriate for good organization'-.Explain the reason behind it. 17
- c) Define organogram. What information we can obtain from organogram? $12\frac{2}{3}$

3. a) Define planning. Briefly explain the planning process. What are the limitations of planning? $18\frac{2}{3}$
- b) What is meant by MBO? What are the benefits and weakness of MBO? 16
- c) What is the purpose of human resource management? Compare among personal manager, HR manager and GM. 12

4. a) What is MIS? What are its requirements? Discuss its advantages and limitations. $15\frac{2}{3}$
- b) 'Every manager should follow the ethics related to social environment' - Explain why? 15
- c) Describe 'Safety triangle' and 'Fire triangle'. 16

Section: B

Rate

5. a) Define motivation and motivator. Briefly explain the Maslow's motivation theory. What is job rotation? 14
- b) Who is a leader? Write down the ingredients of leadership. Suppose you are to be a Chief of Raajan Thermal Power Plant. Explain your position in managerial grid. $14\frac{2}{3}$
- c) Compare internal and external recruitment. Write down the general steps of any recruitment process. 18

6. a) Explain 4P's concept of marketing with neat sketch. $16\frac{2}{3}$
- b) What is market segmentation? Why it is necessary? How it is done? 14
- c) Distinguish between wage and salary. Explain Merrick differential piece rate theory of incentives. 16

7. a) A manufacturer of industrial grade gas handling equipment wants to have \$500,000 in an equipment replacement contingency fund 10 years from now. If the company plans to deposit a uniform amount of money each year beginning now and continuing through year 10 (total of 11 22

deposits), what must be the size of each deposit? Assume the account grows at a rate of 10% per year.

28980

- b) Compare three alternatives on the basis of their capitalized costs at $i=10\%$ per year.

24²/₃

Alternative	E	F	G
First cost, \$	-50,000	-300,000	-900,000
AOC, \$ per year	-30,000	-10,000	-3,000
Salvage value, \$	5,000	70,000	200,000
Life, years	2	4	∞

$-342453 - 372120 - 920000$

8. a) Calculate the B/C ratio for the following cash flow estimates at a discount rate of 7% per year.

22

Item	Cash flow
FW of benefits, \$	30,800,000
AW of disbenefits, \$ per year	105,00
First Cost, \$	1,200,000
M&O cost, \$ per year	400,000
Life of project, years	20

1.44
3.00

- b) A mechanical engineer is considering two sizes of pipes for moving distillate from a refinery to the tank farm. A small pipeline will cost less to purchase (including valve and other appurtenances), but will have a high head loss and, therefore, a higher pumping cost. The small pipeline will cost \$1.7 million installed and have an operating cost of \$12,000 per month. A large diameter pipeline will cost \$2.1 million installed, but its operating cost will be only 8,000 per month. Which pipe size is more economical at an interest rate of 1% per month on the basis of an annual worth analysis? Assume the salvage value is 10% of the first cost for each pipeline at the end of the 10 year project.

24²/₃

*****THE END*****

$-435179-4$

$-307237-9$

$-455697-2$

$-297646-0$

0.17698

0.07698

Department of Mechanical Engineering
Chittagong University of Engineering and Technology (C U E T)
Level 4 Term 2 Examination 2017

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 22/07/ 2018	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

- | | <u>Marks</u> |
|--|--------------|
| 1. a) What are the managerial skills? All skills have equal importance for all level of manager - Do you agree? Explain your agreement. | 14 |
| b) Explains the 14 principles of Fayol's theory. | 20% |
| c) "Every manager should follow the ethics related to social environment" – Explain. | 12 |
| 2. a) What is organizational structure? Compare between mechanistic and organic organizational models. | 16% |
| b) Define project organization. What are the advantages and disadvantages of it? | 16 |
| c) Define the terms:
Authority responsibility, Accountability and span of control. | 14 |
| 3. a) Why planning is important in management? What are the basic steps in planning? | 16% |
| b) "Computer is a precursor for management information system" – Explain. | 15 |
| c) What is MBO? How it is related to manage a modern multinational corporation? | 15 |
| 4. a) What do you understand by product life cycle? Why the life cycle of a product is necessary to know? Show the life cycle of
(i) Desktop computer
(ii) Touch screen mobile | 18% |
| b) Mr. Javed, a marketing manager wants to promote their new soft drinks nationally. What kind of promotional activities is suitable for him? Why? Explain. | 16 |
| c) Why market segmentation is necessary? How it is done? | 12 |

Section: B

- | | |
|---|-----|
| 5. a) Differentiate between internal and external recruitment. Describe basic steps of a recruitment process. | 16% |
| b) Explain Herzberg two factor theory of motivation. | 16 |
| c) What are the impacts of QWL and job ^{rotation} relation for motivating employees? | 14 |
| 6. a) Define Leadership. What are the main ingredients of leadership? How does leadership differ based on the use of authority? | 20 |
| b) Compare Theory Z (modified) with American and Japanese management style. | 15 |
| c) Why safety is an integral part of management? | 11% |
| 7. a) What is ratio analysis? Why it is done? What are its advantages and limitations? | 20% |
| b) Draw the cash flow diagram for the data given in Table 7(b) and find the value of x that makes the equivalent annual worth in years 1 through 7 equal to \$300 per year. Use interest rate of 10%. | 26 |

Table 7(b)

Year	Cash Flow, \$
0	200
1	200
2	200
3	200
4	x
5	200
6	200
7	200

8. a) A pipeline engineer working in Kuwait for the oil giant BP wants to perform a present worth analysis on alternative pipeline routings the first predominately by land and the second primarily undersea. The undersea route is more expensive initially due to extra corrosion protection and installation cost, but cheaper security and maintenance reduces annual costs. Perform the analysis for the engineer at 15% per year. [Table 8(a)] 26%

Table 8(a)

	Land	Undersea
Installation cost, \$ million	-215	-350
Pumping, operating and security, \$ million per year	-22	-2
Replacement of valves and appurtenances in year 25, \$ million	-30	-70
Expected life, years	50	50

- b) Which one of the following two projects should be selected based on modified B/C method? Given $i = 10\%$ per year. 20

	Project A	Project B
First Cost	Tk. 5000000	Tk. 8000000
Annual Maintenance Cost	Tk. 70000	Tk. 95000
Annual Benefits	Tk. 1,60000	Tk. 150000
Annual Disbenefits	Tk. 30000	Tk. 35000
Life in Years	20	20

***** THE END *****

Department of Mechanical Engineering
Chittagong University of Engineering and Technology (C U E T)
Level 4, Term II, Examination 2016

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 06 / 08 / 2017	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

- | | | <u>Marks</u> |
|----|---|--------------|
| 1. | a) What is "Management"? Do you think the knowledge of management is necessary for professions as Mechanical Engineer? How? | 14 |
| | b) What are the skills that managers at various level should have? Explain. | 14 |
| | c) What are the main points of Taylor's Scientific Management theory? What was the condition in industrial sector before Taylor's announcement? Also discuss the effect after the announcement. | 18½ |
| 2. | a) Define Strategic Management. What are the steps of planning? | 14½ |
| | b) What is SWOT matrix? How it helps in managerial decision making? | 16 |
| | c) What is organogram? What information can be obtained from an organogram? Make an organogram of CUET. | 16 |
| 3. | a) What is formal and informal organization? Write advantage and disadvantage of each organization. | 16 |
| | b) What do you mean by "span of control"? What factors have influence on the size of span of control? | 14 |
| | c) "Complete centralization and decentralization is impossible" – Is it true? Justify your answer. | 16½ |
| 4. | a) Explain 4 P's concept of marketing. | 18 |
| | b) What is product life cycle? Draw a tentative product life cycle for (i) Desktop computer and (ii) LED TV | 12 |
| | c) What is market segmentation? Why it is necessary? How it is done? | 16½ |

Section: B

- | | | |
|----|---|-----|
| 5. | a) What is Leadership? Explain the grid theory of Leadership. | 15½ |
| | b) Why job evaluation is done? | 11 |
| | c) How merit rating is performed? | 10 |
| | d) Write short notes on MIS. | 10 |
| 6. | a) What is HRM? What are the responsibilities of a HRM? | 15 |
| | b) Explain the Maslow's need theory for motivation. | 16½ |
| | c) Do you think that money is a strong motivation for every people? Explain. | 15 |
| 7. | a) Why safety management is an integral part of management? | 16½ |
| | b) "Safety promotes productivity" – How? Explain. | 15 |
| | c) Define the terms book value, recovery period and salvage value. Calculate the depreciation charges for years 1, 2, 3 for electro optics equipment with basis value \$25000, salvage value \$4000 and an 8-year recovery period using sum-of-year-digits method. | 15 |
| 8. | a) A couple plan to start saving money by depositing \$500 into their savings account 1 year from now. They estimate that the deposit will increase by \$100 each year for 9 years thereafter. What would be the present worth of the investment if the interest rate is 5 % per year? | 16½ |
| | b) Alternate routes are being considered by the roads and highway department for location of a new highway. Route A, costing \$4,000,000 to build, will provide annual benefits of \$125,000 to local business. Route B will cost \$6,000,000 and will provide \$100,000 in benefits. The annual cost of maintenance is \$200,000 for A and \$120,000 for B, respectively. If the life of each route is 20 years and an interest rate of 8% per year is used, which alternate should be selected on the basis of benefit / cost analysis? | 30 |

Course No: ME 463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 09/ 11/ 2016	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

- | | Marks |
|---|-------|
| 1. a) Who are the key players of scientific management? Briefly discuss the contributions of Henry Fayal in management. | 20 |
| b) What are the skills of a manager? How the skills vary according to the position of a manager? | 15 |
| c) How management is interrelated with science? | 11% |
| 2. a) What are the functional differences between human resource manager and personnel manager? Discuss the main functions of a personnel manager. | 18 |
| b) Write short note on strategic "management planning process". | 17 |
| c) Define MBO? Write down the benefits and weakness of it. | 11% |
| 3. a) Draw the cash flow diagram for the following series of income and expenses; Find the equivalent value of all in year 9 at an interest rate of 12% per year. | 20 |

Table 3(a)

Year	Income \$	Expense \$
0	0	-70,000
1-6	9,000	-13,000
7-9	28,000	-14,000
10-16	38,000	-19,000

- b) A chemical processing corporation is considering three methods to dispose of a nonhazardous chemical sludge: land application, fluidized-bed-incineration, and private disposal contract. The estimate for each method are shown in Table 3(b). Determine which has the least cost on the basis of a present worth comparison at 10% per year 26%

Table 3(b)

	Land Application	Incineration	Contract
First Cost \$	-13,000	-900,000	0
AOC, \$ per year	-95,000	-60,000	-120,000
Salvage value \$	25,000	300,000	0
Life, year	3	6	2

4. a) A new structural design software package is available for analyzing and designing three-sided guyed tower and three and four sided self-supporting towers. A single user license will cost \$ 6,000 per year. A site license has a one time cost of \$ 22,000. A structure engineering consulting company is taking to decide between two alternatives: buy a single user license now and one each year for the next 3 years, or buy a site license now. Determine which strategy should be adopted at an interest rate of 11% per year for a 4-year planning period using the annual worth method of evaluation. [Single user license has 3 years' validity] 23%
- b) The Ford foundation expects to award \$ 15 million in grants to public high schools to develop new ways to teach the fundamentals of engineering. The grants will extends over a 10 year period and will create an estimated savings of \$ 1.5 million per year in faculty salaries and student related expenses. 23
- The foundation uses a discount rate of 6% per year.
- This grants program will share foundation funding with ongoing activities, so an estimated \$ 200,000 per year will be removed from other program funding. To make this program successful, a \$ 500,000 per year operating cost will be incurred from the regular M&O budget. Determine if the grants program is economically justified using
- i) Conventional B/C ratio
 - ii) Modified B/C ratio
 - iii) (B-C) model.

Section: B

5. a) What do you mean by 'Organization' and 'Span of Control'? What are the advantage of wide span structure of organization? 14
- b) Authority can be delegated but not the responsibility-explain. 12
- c) What is matrix organization? Show it with an example. What are the merits and demerits of matrix organization? 14
- d) Write a short note on organization culture. 6%
6. a) What is motivator? Is money a good motivator? Explain. 10%
- b) Briefly describe the Maslow's need theory and compare it with Herzberg's two factors theory. 20
- c) Write short notes on 16
- i) Merit Rating
- ii) Job evaluation
7. a) Explain the term 'Marketing'. Briefly explain the marketing mix elements. 16
- b) What are the stages of a product in its life cycle? Show the product life cycle of Desktop and Laptop computer. 10
- c) Discuss all possible channels of distribution to sell products with suitable examples. 14
- d) Distinguish patent and trademark. 6%
8. a) What are the main sources of industrial hazards? How can you classify different hazards into groups? 10
- b) "Safety promotes productivity"-explain it. Describe "safety triangle" and "fire triangle" 18%
- c) Suppose a project is under consideration to establish a coal based thermal power plant at Modunaghat near by Halda river. Make a portfolio analysis of a project based on SWOT. 18

*****THE END*****

ME
Department of Mechanical Engineering
Chittagong University of Engineering and Technology (CUET)
Level-4, Term-II, Final Examination 2014

Course No: ME463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 17/06/2015	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section -A

- 1a. Discuss the advantages and disadvantages of hierarchical organization. 10
- 1b. What are the parameters to be considered to determine the type of organization? Make a comparison between mechanistic and organic model. 20
- 1c. What is meant by micromanagement? What are the reasons of it and how to overcome micromanagement? 16 $\frac{2}{3}$
- 2a. What is SWOT analysis? Discuss briefly. 10
- 2b. What are the Taylor's four principles of management? 12
- 2c. What are the contributions and criticism of scientific management 26 $\frac{2}{3}$
- 3a. What is meant by span of control? What are the factors that affect on span of control? 18 $\frac{2}{3}$
- 3b. Differentiate among authority, responsibility and accountability. 16
- 3c. Do you support decentralization of an organization? Why? 12
- 4a. What are the common functions of a personnel manager? 10
- 4b. What are the challenges faced by a human resource manager (HRM)? Discuss briefly. 16 $\frac{2}{3}$
- 4c. The ABC corporation wishes to evaluate two alternative machines for its production. Using suitable method, select the better alternative when interest rate per year is 10%. 20

	Machine A	Machine B
First cost (\$)	-300,000	-400,000
Annual Operating Cost (\$ per year)	-50,000	-55,000
Life (year)	3	5
Salvage value (\$)	20,000	30,000

Section -B

- 5a. Differentiate between job enlargement and job enrichment. 11 $\frac{2}{3}$
- 5b. From the following data, calculate: (i) Conventional B/C, (ii) Modified B/C and (iii) B-C using an interest rate of 10% per year and study period of 40 years. 35

To the people	To the Government
Benefit: \$200,000 now and \$100,000 per year for 40 years	Cost: \$1.2 million now and \$200,000 three years from now
Dis-benefit: \$18,000 per year	Saving: \$90,000 five years from now

- 6a. Define office management. Discuss the components of office management. 14
- 6b. What are the main responsibilities of the marketing and operation manager? 14
- 6c. What are the contributions of Frank and Lillian Gilberth in scientific management? 18 $\frac{2}{3}$
- 7a. If you borrow \$11,000 now to buy a tricked out 250 CC motorized bike, how much will you have to pay at the end of year 3 to pay off the loan if you make a \$3,000 payment at the end of year 1? Assume $i = 10\%$ per year. 20 $\frac{2}{3}$
- 7b. You have just graduated from college and plan to begin a retirement fund. It is your desire to withdraw money every year for 30 years starting 25 years from now. The retirement fund earns 10% interest. What uniform annual amount will you be able to withdraw when you retire in 25 years? 26
- initial deposit \$30,000.*
- 8a. Define marketing mix. Discuss 4P concept of marketing. 20 $\frac{2}{3}$
- 8b. Why marketing research is essential before launching any product? How is it done? Explain. 16
- 8c. What is Patent and Trademark? 10

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Department of Mechanical Engineering
Chittagong University of Engineering and Technology (CUET)
 Level-4, Term-II, Final Examination 2013

Course No: ME463	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 22 / 06 / 2013	

The figures in the right margin indicate full marks. The questions are of equal value. There are 03 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section -A

- 1a. What is span of control? "Wider span of management increase organizational efficiency"- Do you support the statement? Discuss-Why? 15
- 1b. Describe the matrix organization approach. What are the challenges for matrix organization? Under what circumstances would matrix organization be more suitable? 20
- 1c. What is the Hawthorne effect? What are outcomes of it? 11 $\frac{2}{3}$
- 2a. Make a comparison between strategic planning and tactical planning. What is SWOT analysis? Discuss briefly. 20
- 2b. Discuss briefly the challenges faced by a personnel manager in his job. 15
- 2c. What is meant by job evaluation and merit rating? Make a comparison between them. 11 $\frac{2}{3}$
3. The complete failure of an offshore platform and the resulting spillage of up to 800,000 to 1,000,000 gallons per day into the Gulf of Mexico in the spring of 2010 have made major oil producers and transporters very conscious of the harm done to people's livelihood and all forms of aquatic life by spills of this magnitude. To address the specific danger to birds that are shoreline feeders and dwellers, environmental engineers from several international petroleum corporations and transport companies--Exxon-Mobil, BP, Shell, and some transporters for OPEC producers--have developed a plan to strategically locate throughout the world newly developed equipment that is substantially more effective than manual procedures in cleaning crude oil residue from bird feathers. The Sierra Club, Greenpeace, and other international environmental interest groups are in favor of the initiative. Alternative machines from manufacturers in Asia, America, Europe, and Africa are available with the cost estimates in the following table. Annual cost estimates are expected to be high to ensure readiness at any time. The company representatives have agreed to use the average of the corporate MARR values, which results in MARR = 15%. Use incremental ROR analysis to determine which manufacturer offers the best economic choice. 46 $\frac{2}{3}$

	Machine A	Machine B	Machine C	Machine D
First cost, \$	-10,000	-5,000	-15,000	-6,500
AOC, \$/year	-3,000	-3,500	-1,400	-3,200
Salvage value, \$	700	500	1,000	900
Life, year	8	8	8	8

4. A project engineer with EnvironCare is assigned to start up a new office in a city where a 6-year contract has been finalized to collect and analyze ozone-level readings. Two lease options are available, each with a first cost, annual lease cost, and deposit-return estimates shown below. The MARR is 15% per year. 46 $\frac{2}{3}$

	Location A	Location B
First cost, \$	-15,000	-18,000
Annual lease cost, \$ per year	-3,500	-3,100
Deposit return, \$	1,000	2,000
Lease term, year	6	9

- Using Present Worth (PW) analysis, answer the following questions:
- i. EnvironCare has a practice of evaluating all projects over a 5-year period. If the deposit returns are not expected to change, which location should be selected?
 - ii. If the planning horizon is 8-year, which location should be selected?
 - iii. Determine which lease option should be selected on the basis of the information given in the above table

Section -B

- 5a. What is meant by MBO? What are the benefits and weakness of MBO?
- 5b. Compare American, Japanese and Chinese organizing process.
- 5c. Write short notes on (any three): (i) Role and importance of MIS; (ii) Management ethics; (iii) Consumer protection; (iv) Internal and external recruitment; (v) Organizational culture and characteristics
- 6a. Define leadership and leader. "Leadership depends on the situation and the relationship among the leader and followers"- Discuss the leadership style on the basis of the above statement.
- 6b. Explain Maslow's hierarchy theory of needs.
- 6c. Define job enrichment, job enlargement and job rotation.
- 7a. What do you mean by product life-cycle? Explain the various stages of product life cycle including innovation or development.
- 7b. Write short note on market segmentation.
- 7c. Distinguish between wage and salary. Define incentive. Discuss Merrick differential piece rate theory of incentives.
8. The Parks and Recreation Department of Burkett County estimates that the initial cost of a "bare-bones" permanent river park will be \$2.3 million. Annual upkeep costs are estimated at \$120,000. Benefits of \$340,000 per year and dis-benefits of \$40,000 per year have also been identified. Using a discount rate of 5% per year, Determine whether the project is feasible on the basis of
- The conventional B/C ratio
 - The modified B/C ratio and
 - B-C model

11
11 $\frac{2}{3}$
24

18

17

11 $\frac{2}{3}$

20

11 $\frac{2}{3}$

ARMIS

46 $\frac{2}{3}$

Course No: ME 463
Full Marks: 210

Course Title: Industrial Management
Date: 28/07/2013

Time: Three (03) hours

The figures in the right margin indicate full marks. There are four (04) questions in each section. Answer any three (03) questions from each section. Please use separate script for each section.

Section A

Marks

- | | | |
|---|--|------------------|
| 1 | a) Define office, management and office management. | 10 $\frac{2}{3}$ |
| | b) What are the components of office management? Describe in brief. | 18 |
| | c) What are the functions of office management? Discuss. | 18 |
| 2 | a) Describe the Taylor's four principles of management. What are the contributions and criticisms of scientific management. | 14 $\frac{2}{3}$ |
| | b) Discuss the Weber's principles of Bureaucracy. What are the Fayol's 14 principles of management. | 22 |
| | c) What are the four principles of administration according to the idea of Mary Parker Follett? | 10 |
| 3 | a) What is meant by intellectual property? What are the types of property? | 15 |
| | b) What is patent? What are the requirements for a patent? | 20 |
| | c) What are the process theories of motivation? | 11 $\frac{2}{3}$ |
| 4 | a) Explain the human resource management cycle. HRM | 16 $\frac{2}{3}$ |
| | b) What do you mean by cash flow? What are the parameters of a cash flow diagram? Draw a typical cash flow diagram. | 10 |
| | c) Southwestern moving and storage wants to have enough money to purchase a new tractor trailer in 3 years. If the unit will cost 250,000; how much should the company set aside each year if the account earns 9% per year? | 20 |

Section B

- | | | |
|---|---|------------------|
| 5 | a) What is strategic planning? How it is done? | 12 |
| | b) Explain MBO process. Also mention its effectiveness with limitations. | 18 |
| | c) What do you mean by authority, power, responsibility and accountability? | 16 $\frac{2}{3}$ |
| 6 | a) Define the term 'span of control'. Briefly discuss the factors that affect on span of control. | 20 |
| | b) What are the functions of HRM? | 10 |
| | c) What do you mean by motivation? Compare Maslow's need theory and Herzberg's theory. | 16 $\frac{2}{3}$ |
| | d) Classify automobiles brakes with respect to the duty, power unit, number of wheels of application. | 12 |
| | d) Classify automobiles brakes with respect to the duty, power unit, number of wheels of application. | 12 |

Marks

- 7
- a) Why sales promotion? Explain from the perspective of a company and a consumer. 16 ²/₃
- b) What are the types of sales promotion? Discuss three consumer promotions method. 20
- c) What are the types of trade sales promotion? 10
- 8 a) A couple plan to start saving money by depositing Tk. 10,000 into their saving account 1 year from now. They estimate that the deposits will increase by Tk. 1,000 each year for 9 years, thereafter. What would be the present worth of the investments if the interest rate is 10% per year? 20
- b) Determine which alternative below should be selected on the basis of modified B/C analysis. Use an interest rate of 8% per year and assume a project life of 20 years. 26 ²/₃

Cost	Alternative X	Alternative Y
First cost	6000,000	8000,000
Annual maintenance cost	40,000	18,000
Annual road-user cost	300,000	170,000

P_2 P

$P = 10000 (F_{1, i, 9})$ r_2

$10000 (F_{1, i, 9})$

$b (\frac{F-1}{i-1})^r$

G_2
 P_2

Course No: ME 403	Full Marks: 280	Time: 03 hours
Course Title: Industrial Management	Date: 02/06/2010	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

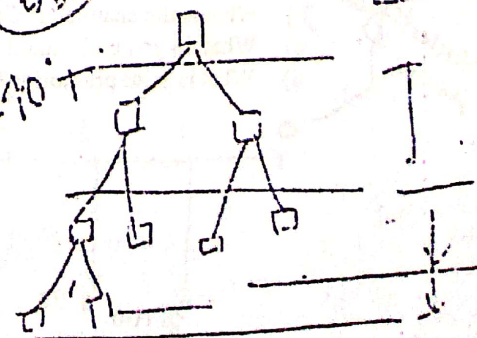
- a) What are the principles of management? 10
- b) F. W. Taylor is known as father of scientific management theory-why? What are his principles? 15
- c) What is managerial function? 10
- d) What is Gantt Chart? Explain with examples. 11 2/3
- a) What is formal and informal organization? How informal organization is formed? 15
- b) What do you mean by span of control? What are the factors that affects on span of control? 20
- c) Distinguish among authority, responsibility and accountability. How organization culture is developed? 11 2/3
- a) Explain the relation between need, motivation and satisfaction. 10
- b) Compare between Maslow's need theory and Herzberg's two factors theory. 16 2/3
- c) Distinguish between a leader and a manager. Explain the managerial grid theory of leadership. 20
- a) Money is a motivating factor, but it also addresses itself to human greed- explain. 08
- b) Explain QWL and discuss its impact on industries. 12
- c) Why merit rating is done? Compare recruitment from inside vs. recruitment from outside. 13 2/3
- d) Why committees are formed? Discuss how committees can be made effective. 15

Section: B

- a) Explain the elements of marketing mix. 12
- b) What do you mean by product life cycle? Explain the various stages of product life cycle. 20 2/3
- c) What is market segmentation? Why it is necessary? How it is done? 14
- a) Outline the concept in MBO. What are its benefits and weakness? 14
- b) Why financial ratio analysis is done? What are the limitations of ratio analysis? 14 2/3
- c) Define the following ratios. What types of information is obtained from each of them: 10
 - i) Acid-test ratio ii) Debt-equity ratio iii) Inventory turn-over ratio
- d) Make a list of incentive plans. Explain the Halsey premium method. 8
- a) Explain 4 P's concept of Marketing with net sketch. 12
- b) What are the ways of marketing promotion? What are the depending factors of marketing promotion? 12
- c) What is sales promotion? How sales are promoted? 10
- d) Explain managerial skills with management levels. 12 2/3
- a) A saving scheme starts with initial deposit Tk 1000, annual deposit Tk. 500 upto 9 years, what is the present value on 10th year if interest rate is 5%, show cash flow diagram. 20
- b) What are the financial and non-financial incentives? 12
- c) Standard rate to do a job is 8hr @ Tk.60/hr. If a worker completes his job within 6 hrs, what would be his wages based on Halsey Premium incentive plan @ 60% incentive 14 2/3

*****THE END*****

$$F = \frac{P(1+i)^n}{i}$$



19.04.11

Management

Organization

Motivation

Leadership

Marketing

Finance

Marketing

Math



Technical human concept decision

4 P's = Product, Price, Promotion, Place

5/12

Course No: ME 463	Full Marks: 280	Time: 03 hour
Course Title: Industrial Management	Date: 21 / 05 / 2009	

The figures in the right margin indicate full marks. The questions are of equal value. There are 04 questions in each section. Answer any 03 questions from each section. Use separate script for each section.

Section: A

Marks

1.
 - a) Discuss the differences among Management, Administration and Organization. 12
 - b) What are the main points of Taylor's Scientific Management theory? What was the condition in industrial sector before Taylor's announcement? Also discuss the effect after the announcement. 15
 - c) What is Mayo's contribution in the development of management thought? 10
 - d) Who is a successful manager? List the functions of a Manager. 9 ²/₃
2.
 - a) Define organization. What is system approach to management? 10
 - b) What is TOWS matrix? How it helps in managerial decision making? 16
 - c) "Authority can be delegated but not the responsibility"- explain the statement. 10
 - d) What is organogram? What information can be obtained from it? 10 ²/₃
3.
 - a) Discuss various style of leadership. "Leadership is continuum"- explain. 15
 - b) What are the ingredients of leadership? What are the advantages and challenges faced by a multinational company? 15
 - c) What is a committee? Why it is formed? How to make it effective? 16 ²/₃
4.
 - a) Compare Maslow's and Herzberg's theory of motivation. Which one do you support more? Why? 18
 - b) Do you think money can motivate all people irrespective of classes? Explain concisely. 12 ²/₃
 - c) Compare Job enlargement and Job enrichment. How they are related to worker's motivation? Discuss. 16

Section: B

Marks

5.
 - a) Discuss the functions of a Personnel Manager? What is the difference between personnel management and human resources management? 15
 - b) Why job evaluation is done? What is merit rating or performance evaluation? Discuss briefly any method of evaluating jobs. 15
 - c) What is meant by organization culture? How it is formed? What are its advantages? Discuss its impact on the performance of organization. 16 ²/₃
6.
 - a) Discuss the modern concept of marketing. Compare it with Sales concept. 15
 - b) What is "Marketing Mix"? Discuss briefly. List functions that influence marketing decision making. What is a product life cycle graph? 16 ²/₃
 - c) Compare 'patent' and 'Trade mark'. Why marketing research is done? Make a list of ethics that a marketing manager should follow. 15
7.
 - a) What is SBU? What is its application? Explain briefly. 16 ²/₃
 - b) What is meant by MBO? Write its application on industrial organization. 15
 - c) Discuss the term budget, budgeting and budgetary control. What is zero-based budget?-Explain. 15
8.
 - a) What is MIS? What are its requirements? Discuss its advantages and limitations. 18 ²/₃
 - b) Write short notes on (any four): 28
 - (i) Liquidity ratio vs. Leverage ratio
 - (ii) Reorganizing vs. Reengineering
 - (iii) USA style vs. Japanese style of Management
 - (iv) Centralization vs. Decentralization
 - (v) Strategic Management.

marketing

