

OM 01

Roll No. _____
 Total No. of Questions : 4
 Duration (hrs) : 3

Total No. of Printed Pages

Maximum Marks : 60

- Note :**
1. Attempt all questions.
 2. Marks against each question are indicated.
 3. Statistical Table can be used wherever required.

Q. 1 There was a complete chaos in the city of New Havens. The main water pipeline had burst. The perplexed engineers of Water Works department did not know what to do. In desperation they called in plumbing contractor and asked him to restore the water supply as soon as possible. The contractor was technically very strong but was not systematic. You are practising as a Management Consultant in that city and he approaches you to help him carry out the task at the earliest.

You have systematically collected the data from the contractor which is given below :

Activity	Letter Code	Code of Immediate Predecessor	Optimistic Time Estimate (a) Days	Most Likely Time Estimate (m) Days	Pessimistic Time Estimate (b) Days
Assemble Crew for Job	A	-	8	10	12
Use old line to build inventory	B	-	26	26.5	36
Measure & Sketch old line	C	A	1	2	3
Develop material list	D	C	0.5	1	1.5
Erect Scaffolding	E	D	1.5	1.63	4
Procure Pipe	F	D	28	28	40
Procure Valves	G	D	40	42.5	60
Deactivate Old Line	H	B, D	1	1	1
Remove Old Line	I	E, H	4	6	8
Prefabricate New pipe	J	F	4	4.5	8
Place Valves	K	E,G,H	0.5	0.9	2
Place New Pipe	L	I, J	5	5.25	10
Weld Pipe	M	L	1	2	3
Connect Valves	N	K, M	0.5	1	1.5
Insulate	O	K, M	3	3.75	6
Pressure Test	P	N	1	1	1
Remove Scaffold	Q	N, O	1	1	1
Clean up & hand over	R	P, Q	1	1	1

How soon will you suggest the completion of the project ?

If the project is delayed beyond the day suggested by you, the penalty is \$100/day. In case it can be completed before the due date, there is a bonus of \$100/day. In that case which of the following possibilities would you follow and why ?

- (a) Shorten Activity B by 4 days at a cost of \$100
- (b) Shorten Activity G by 5 days at a cost of \$ 50
- (c) Shorten Activity O by 2 days at a cost of \$150

Q. 2 STAMPCO manufacturers of V belt pulleys, have decided to employ Statistical Quality Control techniques to reduce the cost of inspection and improve quality. They decided to collect the data for daily fraction defectives for twenty four consecutive production days by taking a sample of 200. Table below provides the data

Production Day	1	2	3	4	5	6	7	8	9	10
No. of Defectives	10	5	10	12	11	9	22	4	12	24

Production Day	11	12	13	14	15	16	17	18	19	20	21
No. of Defectives	21	15	8	14	4	10	11	11	26	13	10

Production Day	22	23	24
No. of Defectives	9	11	12

On looking the data the confusion of Quality Control Manager was compounded as the variation was very large.

You have joined this organization as a Management Trainee and have been given this assignment. What will you do ?

After the preliminary working you interact with the Production Manager and figure out that on day 10th & 19th trainee workmen were employed as the regular workmen were taken away for disciplinary enquiry. Would you like to relook at your earlier decision ?

Q.3 Honda Motor Company's intended strategy was to market 250 cc & 305 cc motor bicycles to the market segment of mobike enthusiasts, rather than selling the 50 cc Honda cubs which they thought were not suitable for the American market where everything was big and luxurious. However, the sale of 250 cc and 305 cc mobikes did not pick up. Incidentally, the Japanese executives of Honda used to move about on their 50 cc cubs, which attracted the attention of Mr. Sears Roebuck the owner of Sears Retail who thought they could sell the cubs to a broad market of Americans who were not motorcycle enthusiasts.

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Honda Motor Company was initially very reluctant to sell the 50 cc (small) bikes and that too through a retail chain. "What will happen to Honda image in U.S. ?", they thought. Expediency of the situation (failure in the sale of bigger motorcycles) made them give a nod to Mr. Sears Roebuck. Within a span of next 5 years, one out of every two motor cycles sold in US was a Honda.

Analyse the Operations Strategy of the success of Honda Motorcycles in U.S.

Q.4 On a rainy day a scrap disposal truck owner was taking a hazardous scrap to disposal yard. Due to improper fuel lot of smoke was being emitted from his vehicle. Scrap was not properly covered and hence spillage of material was taking place. During the journey his truck broke down. He then dumped the material on the way and towed the vehicle to the garage.

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Elaborate the following :

1. What are environmental elements involved ?
2. What are the various aspects generated ?
3. What is their impact ?
4. What are the suggestions to avoid the impact ?
5. Which natural resources are damaged ?