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THIRD SEMESTERMBA
END SEMESTER EXAMINATION *NOV./ DEC.-2019*

Paper Code:MGS-04 Title of Paper: Total Quality Management

Time: 3:00 Hours ***Max. Marks :60***

Notes :
Please explain the answers with suitable Illustrations and Examples.
Please be short and to the point.
Use of Scientific Calculators is allowed.
Graph Sheets are to be provided.

Section A: Attempt any Four Questions **6 Marks Each**

Q1. A new process is proposed for the manufacture of steel shafts with a target value of 6.38 and a coefficient of 9000. Seven samples measured for strength have values 6.38, 6.40, 6.41, 6.38, 6.39, 6.36 and 6.37. Calculate the expected loss.

Q2. Use Force Field Analysis to analyse and increase your abilities for Placement Interviews.

Q3. Construct a Flow Diagram / Chart for a Doctor's Clinic to handle a patient and his treatment including follow-ups.

Q4. Suggest criteria and develop a Stationery supplier selection plan for your University.

Q5. By means of a scatter diagram, determine if a relationship exists between product temperatures and percentage foam for a soft drink, against the following data.

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Day	Product Temp. deg F	Foam %	Day	Product Temp. deg F	Foam %
1	36	15	11	44	32
2	38	19	12	42	33
3	37	21	13	38	20
4	44	30	14	41	27
5	46	36	15	45	35
6	39	20	16	49	38
7	41	25	17	50	40
8	47	36	18	48	42
9	39	22	19	46	40
10	40	23	20	41	30

Section B: Attempt any Two Questions **8 Marks Each**

Q6. Using the Quality Function Deployment concepts list six or more technical descriptors of a restaurant keeping in mind the customer preferences and requirements. Try to indicate their interrelationships and weightages.

Q7. Detail out the journey of any Indian company you have studied towards winning a Quality Award.

Q8. List five benefits that can be realized by implementing an ISO 9000 quality system. Explain using suitable examples.

Section C: Case Analysis (Compulsory) **20 Marks**

Q9. The disaster at Bowbazar where portions of more than 80 buildings collapsed and many were badly damaged rendering hundreds of people homeless due to the overconfidence of Kolkata Metro Rail Corporation Limited in constructing the underground tunnel of the East-West Metro, could have been avoided had theKMRCL and RITES engineers accepted the alternate route suggested way back in 2011. After holding several rounds of talks with the engineers, the city police had suggested that from Sealdah the underground Metro would come straight to Laldighi via BB Ganguly Street, crossing Chittaranjan Avenue, Lalbazar Street to Laldighi where the underground station called Mahakaran would be set up. The Metro would then go straight to Strand Road with GPO on the right.

The KMRCL authorities were asked to change the route. However, they sat on the proposal stating that they would face problems from the funding agency if they are informed about the route change. The KMRCL maintained that from Sealdah, the Metro would take BB Ganguly Street, then a left turn and take Nirmal Chandra Street, pass SubodhMullick Square and then take another right turn from SN Banerjee Road to reach Esplanade.

AmlanjyotiKar, Superintending Hydrogeologist, Central Ground Water Board, maintained that along with clay there may be sand pockets under the sub-surface layer. The disaster might have taken place after the boring machine hit the sand pockets that resulted in oozing of water and resulted in sandslides leading to the weakening of the foundation of the structures. The KMRCL had not carried out rigorous soil tests which could have helped them to detect the sand pockets.

a) Based on Deming's philosophy point out the systemic flaws in the above context and suggest a strategic plan for effective quality management. (6)
b) Which quality rules were broken? What should have happened? (4)
c) What was the cost of failure to follow TQM practices, in qualitative terms? (4)
d) Create an outline of the plan that should have taken care of the environmental risks, while listing the environmental aspects based on the context. (6)