

Time: 3 hour

Max. Marks: 80

 Note-

1. Question one is compulsory.
2. Solve any three out of remaining five.

- Q.1 Explain any four of the following. 20**
- a Definition TQM and explain TQM concept
 - b Seven QC tools and short explanation
 - c Supplier selection
 - d Bench Marking
 - e Explain Win –Win policy with supplier.
- Q.2 a OC Curve for $n=80$, $c=2$, $AQL=1\%$, $LTPD=5\%$, $\alpha =0, 0466$, $\beta =0, 2306$, and Probability of Acceptance $= (1-\alpha) =0,9534$. Draw OC Curve 10**
- b Describe Business Process Re-Engineering in connection with TQM. 10**
- Q.3 a Explain PDCA Cycle with examples 10**
- b Explain various steps in implementing quality management system. 10**
- Q.4 a What is six sigma? Explain six sigma approach DMAIC. 10**
- b Describe the contribution of Juran and Crosby to quality management. 10**
- Q.5 a Explain the purpose of giving Malcom Baldrige quality award. 10**
- b Explain the following charts 10**
- (i) X-bar – R chart
 - (ii) P-chart
 - (iii) C-chart
- Q.6 a 1.Explain the Barriers of TQM' 5**
- 2.Write note on cost of quality 5**
- b What is Bench Marking concept? List out the process involves in the Bench Marking concept implementation 10**
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Time: (3 Hours)

Total Marks: 80

Note:

1. **Question No. 1 is compulsory.**
2. Attempt any **THREE** out of the remaining **FIVE** questions.
3. Assume suitable data if necessary.

- Q. 1.** Answer **any FOUR** of the following: **(20)**
- (a) Discuss on : pillars of Environmental Management.
 - (b) Elaborate the ISO 14001 EMS Model for Municipalities.
 - (c) Unawareness or ignorance of environmental protection will lead to detrimental consequence comment. Justify the statement.
 - (d) Define Environmental Objective as per ISO 14001
 - (e) Explain the various keys components of EMS.
- Q. 2.** (a) Write notes on the following : **(10)**
- a) Applications of Environmental Management System.
 - b) ISO 14001& ISO 14010
- (b) What are the challenges of Environmental Management? **(10)**
- Q. 3.** (a) How is CSR related to Environmental Management? Explain with an example. **(10)**
- (b) What are the guidelines to conduct and Environmental audit? **(10)**
- Q. 4.** (a) What is Total Quality Environment Management Concept? **(10)**
- (b) Discuss on factors destroying the Environment with example. **(10)**
- Q. 5.** (a) Write short note on Loss of Biodiversity as related to global environmental concerns. **(10)**
- (b) Discuss the key success factors for applied to almost all the operation for EMS **(10)**
- Q. 6.** Answer the following:- **(20)**
- (a) Discuss on 5 biggest environmental problems of year 2023.
 - (b) Explain limiting factors and carrying capacity as related to Ecosystems.
 - (c) How does EMS help in improving environment quality?
 - (d) Discuss on Environmental Issues related to Indian Context.