

**B.E DEGREE EXAMINATIONS: APRIL/MAY 2014**

(Regulation 2009)

Sixth Semester

**AERONAUTICAL ENGINEERING**

GSS103: Total Quality Management

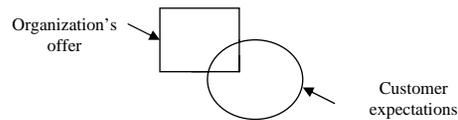
**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. What does the overlapping space mean in Teboul model?



- a) Satisfaction level
  - b) Expectation level
  - c) Market share level
  - d) Price level
2. The founder of the world wide quality management system is
- a) Dr. W. Edwards Deming
  - b) Crosby
  - c) Juran
  - d) F.W.Taylor
3. The 5S principle related to "sustaining" is
- a) Seri
  - b) Seiketsu
  - c) Seiso
  - d) Shitsuke
4. Kaizen is a Japanese concept that means:
- a) Mistake proofing
  - b) Change for the better
  - c) Process improvement
  - d) Crises management
5. The method used to gather and categorize data about previous unexplored issues, problems etc., which are fuzzy and difficult to understand
- a) Affinity diagram
  - b) Matrix data analysis
  - c) Matrix diagram
  - d) Relations diagram
6. In a "Three Sigma" quality level process, the number of defect per million parts produced is:
- a) 3,08,000
  - b) 66,800
  - c) 6,210
  - d) 230
7. Policy deployment is also called as

- a) Hoshin planning
  - b) Policy management
  - c) Hoshin Kanri
  - d) a, b & c
8. A planning tool to ensure that the voice of the customers is transferred throughout the product planning and design stages.
- a) QPD
  - b) QFD
  - c) FEMA
  - d) JIT
9. Match list I (ISO 9000 series of standards – old version) with list II (detail of coverage of standards) and select the correct answer.

List I	List II
A. ISO 9001	1. Model for quality assurance in final inspection and testing
B. ISO 9002	2. This standard provides guidance on the technical, administrative and human factors affecting quality of products and services at all stages of the quality loop.
C. ISO 9003	3. Model for quality assurance in production and installation
D. ISO 9004	4. Model for quality in design/development, production, installation and servicing

- a) A B C D
  - b) A B C D
  - c) A B C D
  - d) A B C D
10. Match list I (elements of a document pyramid of ISO standard) with list II (objective of the element) and select the correct answer.

List I	List II
A. Policy	1. Who, when & where
B. Procedures	2. Evidence
C. Work instructions	3. Why & what
D. Records	4. How

- a) A B C D
- b) A B C D
- c) A B C D
- d) A B C D

**PART B (10 x 2 = 20 Marks)**

11. A report is being prepared by an office assistant for submission to the higher authority. As per the concept of TQM, who is the customer and who is the supplier in this situation?
12. What is MBWA and state its significance towards TQM?
13. Give an example for Kaizen.
14. State how two customers perceive the quality of a soft tooth brush differently?
15. Draw scatter diagrams for positive correlation and negative correlation.
16. "A control chart does not control any process" – Explain how?
17. Distinguish the terms "benchmarking" and "Benchmark".
18. Draw the house of quality for QFD.
19. What does ISO 14001:2004 deal with?
20. State the need for documentation in Quality Systems.

**PART C (5 x 14 = 70 Marks)**

21. a) List and apply the Five principles of TQM to a product / service of your choice.

**(OR)**

- b) List and explain the 14 principles stated by Deming.

22. a) Apply and explain the 5S concepts to a chemistry laboratory of an educational institution.

**(OR)**

- b) Explain the procedure of going in for supplier partnership under Just- in -Time inventory management system and state its significance.

23. a) As a consultant, you have been asked by your client who runs a fleet of luxury long distant busses to create a cause and effect diagram that has created delighted customers as the effect.

**(OR)**

- b) As the organizing secretary of a graduation day function of an engineering college, use PDPC as a tool to plan the following?
  - o Catering
  - o Chief guest
  - o Hall facilities with public addressing system

24. a) Apply the RPN concept of FMEA on a product of your choice, make suitable assumptions and calculate the RPN and list the inferences on the result so obtained.

**(OR)**

- b) Taguchi approaches quality in negative terms – Explain Taguchi's concepts referring to a product of your choice.

25. a) List the clause and sub clause of ISO 9000.

**(OR)**

- b) As an ISO lead auditor, explain the plan you will adapt to make a recertification audit meaningful?

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