



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.Tech (ME)/SEM-2/ME-205/2010**

**2010**

**MANAGEMENT KNOW-HOW AND QUALITY  
MANAGEMENT**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

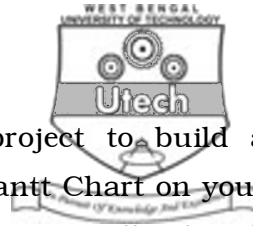
**GROUP-A**

Answer Question No. 1 and any *two* from the rest.

1. a) Draw a neat Pareto Diagram on the data given below (collected from printer circuit board manufacturing company) and explain the results from a managers perspective.

| Sl. No. | Error Name                    | Frequency of Occurrence |
|---------|-------------------------------|-------------------------|
| 1       | Damaged Component             | 2                       |
| 2       | Broken Solder Joint           | 2                       |
| 3       | Components Dirty              | 3                       |
| 4       | Label Missing                 | 4                       |
| 5       | Imperfect Component           | 32                      |
| 6       | Missing Component             | 21                      |
| 7       | Solder not properly done      | 25                      |
| 8       | Component wrongly inserted    | 19                      |
| 9       | Component not properly fitted | 15                      |
| 10      | Wrong placement of component  | 26                      |
| 11      | Electrical defect             | 10                      |
| 12      | SMD Alignment                 | 7                       |
| 13      | Additional Component          | 8                       |
| 14      | Power failure                 | 7                       |
| 15      | Dirt                          | 3                       |

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- b) Suppose you have undertaken a project to build a house of your own. Develop a neat Gantt Chart on your project based on at least 7 activities sequentially placed. 6
2. a) What is P-D-C-A cycle ? Who developed it ? What is the significance of the cycle ? Explain with suitable example. 2 + 1 + 3
- b) As a Principle of an Engineering College along with your faculty colleagues you are trying to explain why the quality of the students passing out of your college is not satisfying. Analyze the problem by pointing out the connectivity of the parameters (causes) by neatly developing a Ishikawa diagram. 8
3. a) How do you differentiate between Continuous and Continual improvement ? 3
- b) What do you mean by quality ? 2
- c) How do you differentiate between the quality of classroom and that of a pen ? 3
- d) How do you differentiate between the quality of a product and that of a service ? 6
4. a) How did mahatma Gandhi explain Customer Orientation ? Explain briefly. 5
- b) Differentiate between Implied and Stated Needs of a customer with suitable examples. 2
- c) What are the underlying principles of TQM ? Explain each of them briefly. 7



5. a) Explain with a suitable example, how the management skills requirement varies in management hierarchy in an organization. 3
- b) How management function Staffing differs from another management function organizing ? 2
- c) Using suitable example, explain 5-S Philosophy. 4
- d) With the help of a suitable diagram, explain briefly Abraham Maslow's Hierarchy of Needs theory. 5

**GROUP-B**

Answer Question No. 6 and any *one* from the rest.

6. Explain the importance of PERT & CPM in network Analysis. What are differences between them ?

In a small project following information are available :

| Activity | Predecessor activity | Time estimate (Week) |
|----------|----------------------|----------------------|
| A        | —                    | 5                    |
| B        | —                    | 4                    |
| C        | A                    | 3                    |
| D        | A                    | 8                    |
| D        | B                    | 7                    |
| F        | C                    | 5                    |
| G        | D,E                  | 3                    |

- a) Draw the Network diagram.
- b) Identify the Critical Path and compute expected project completion time by using usual method, by using suitable method on Network analysis. 4 + 4 + 6

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7. a) Henry Fayol and Max Weber independently develop their individual management principles. What are they known as ? 2
- b) Describe four major differences between theory X and theory Y developed by Douglas McGregor. 4
- c) Discuss in detail, the management principles as proposed by Henry Fayol. 8
8. What is Leadership ? Explain the functions of Leadership with suitable examples. Explain "Managerial Grid" to explain leadership styles. 2 + 6 + 6
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