

M.Sc. IN CREATIVE DESIGN CAD / CAM

(MSCCRD)

Term-End Examination

June, 2015

00215

MFW-048 : MANAGEMENT - III

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is permitted.*

1. How do long-term and short-term capacity considerations differ ? Explain with the help of suitable examples. 10
2. What is ABC analysis of inventory control ? List its advantages. 10
3. Historical demand for a product is :

<i>Month</i>	<i>Demand</i>
January	12
February	11
March	15
April	12
May	16
June	15

- (a) Using a weighted moving average with weights of 0.60, 0.30 and 0.10, find the July forecast.
- (b) Using a simple three-month moving average, find the July forecast.
- (c) Using simple exponential smoothing with $\alpha = 0.2$, and a June forecast = 13, find the July forecast. Make whatever assumption you wish.

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4. In an attempt to increase the productivity and reduce costs, Rho Sigma Corporation is planning to install an incentive pay plan in its manufacturing plant. In developing standards for one operation, time-study analysts observed a worker for a 30-minute period. During that time the worker completed 42 parts. The analysts rated the worker as producing at 130 percent. The firm has established 15 percent as a fatigue and personal time allowance.

- (a) What is the normal time for the task ?
- (b) What is the standard time for the task ?

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5. The owner of an old-fashioned sports shoe M/s Perfect Ten, is contemplating adding a new line of shoes, which will require leasing new equipment for a monthly payment of ₹ 60,000. Variable costs would be ₹ 20 per shoe, and shoe would retail for ₹ 70 each.
- (a) How many shoes must be sold in order to break even ?
- (b) What would be the profit (loss), if 1,000 shoes are made and sold in a month ?
- (c) How many shoes must be sold to realize a profit of ₹ 40,000 ? 10
6. What are the steps of "Delphi" method of forecasting ? Write down the application of "Delphi" in forecasting. 10
7. Discuss the merits and demerits of process layout and product layout. 10
8. Draw Deming Circle. Explain Deming's fourteen (14) principles for transformation of a business. 10
9. How is management control different in a cellular manufacturing layout situation as compared to the traditional situation of a process or layout ? Discuss with the help of suitable examples. 10

10. Explain the following for the six-sigma belts :

- (a) Green Belts
- (b) Black Belts
- (c) Master Black Belts

What are the benefits of six-sigma in an organisation ? Discuss.

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