

Industrial Engineering REVISED COURSE
& Management

(3 Hours)

Total Marks: 80

N. B.: 1. Q. No. 1 is compulsory.

2. Attempt any THREE questions from the remaining questions.

3. Assume suitable data wherever necessary.

4. Figures to the right indicate full marks.

Q.1 Write short notes on. (Any Four) (20)

a) Contributions of F. W. Taylor in IE

b) MOST

c) Assembly line balancing

d) Computerized Relative Allocation of Facilities Technique (CRAFT)

e) Group Technology

f) Financial Statements

Q.2 a. Why work study is valuable for production management?
Define Work study, Method study and work measurement. (10)

b. Define Value Engineering. Steps in value engineering Distinction
between value engineering & value analysis. (10)

Q.3 a. Define micro motion study. What are therbligs? When it is used?
List therbligs symbols, colour description, name and code. (10)

b. Define plant layout. Enumerate and explain various factors to be
considered in the design of plant layout. (10)

Q.4 a. A time study was conducted on a job considering of three elements.
Stopwatch reading in hundredth of a minute is given. Calculate standard
time if allowance is 17%. (10)

Element	Stop Watch Reading					Rating
	I	II	III	IV	V	
A	10	73	139	203	266	80
B	25	88	155	218	280	100
C	64	128	193	257	230	100

b. Define Ergonomics and discuss its scope. Explain ergonomics design
considerations in relation to work. (10)

Q.5 a. Define productivity. Explain partial measures of productivity with
suitable examples. (10)

b. Why location of plant is of great concern to the management? How plant
location is important to its profitability? What are the factors influencing plant
location. (10)

[TURN OVER

- Q.6 a. A factory owner employed 100 workers during the month of April. The following are the details of expenditure. Cost of Material Rs. 40000, Rate of wages per worker is Rs. 2 per hour for normal duty and Rs. 4 per hour for overtime duty, Man hour per day of normal duty is 8 hour, No. of holidays per month without wages is 5 days, Total overhead expenses is Rs. 10000. The workers are paid overtime for 300 hours. Calculate the total cost per month. (10)
- b. Why does money have a time value? Explain the basic time value of money model with four variables involved in it. (10)

Course: BE Sem VIII (Industrial Engineering & Management)

QP Code: 719500

Q. 4 a. In the table

Fourth Row Element C, Column sixth, Stop watch reading for v element, Instead of 230 please read it as 320.

Date and Time 18/05/2016 11:55 AM
