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Total Number of Pages: 03

15 MNG -205

Second Semester Regular/ Back Examination – 2015-16
OPERATION MANAGEMENT
BRANCH(S): MBA
Time: 3 Hours
Max marks: 70
Q.CODE:W 431

Q.1 Fill in the blanks:-

[10 X 2 Marks]

- a) Critical activities are all of the that make up the path.
- b) The term PERT stands for..... evaluation and technique.
- c) Slack is the maximum amount of time the activity can be..... in its completion before it becomes a critical
- d) Deming a Statistics professor at NewYork University in the 1940s went to after World War II to assist Japanese in improving and productivity.
- e) Acceptance Sampling is performed on goods that already exist to determine what percentage of products confirm to and it is executed through a sampling.....
- f) An important tool in Statistical process control is chart, and it is a time-ordered plot of representative statistics obtained from an ongoing process.
- g) A mean control chart sometimes referred to as chart and is based on adistribution.
- h) Total Quality Management may be defined as “managing the entire organisation so that it excels on all dimensions of and that are important to the customer.
- i) ISO 9000 pertains to management. It concerns what an organisation does to ensure that it's products and services confirm to its requirements.
- j) ISO 14000 concerns what an organisation does to minimize harmful effects to the caused by its

Q.2 Short answer type question:-

[10 X 2 Marks]

a) A time study analyst wants to estimate the time required to perform a certain job. A preliminary study yielded a mean of 6.4 minutes and a standard deviation of 2.1 minutes. The desired confidence is 95 percent. How many observations will he need if the desired maximum errors is ± 10 percent of the sample mean? (Where $z=1.96$ at 95 % confidence level)

b) What do you mean by standard time?

c) If sum of nine observations is 10.35 minutes and performance rating is 1.13, find out normal time?

d) If sum of nine observations is 10.35 minutes, performance rating of 1.13 using an allowance of 20 percent of job time. Determine the appropriate standard time for the operation.

e) Find out UCL and LCL of mean control chart with following information.

$\bar{x} = 12.11$, $z=3$, $n=4$ observations per sample, and $\sigma=0.02$.

f) What do you understand by Consumer's Risk?

g) What are the important steps in creating an effective Supply Chain?

h) Compute slack time for the following schedule.

ES=8.00, EF=14.00, LS=10.00 and LF=16.00

i) Define Logistics in brief?

j) Briefly explain Job Shop production process.

Long answer type questions (Answer any four):-

[4 X 15 Marks]

Q.3 What is key difference between Systematic layout Planning (SLP) and CRAFT?

Q.4 A time study was made of existing job to develop new time standards. A worker was observed for 45 minutes. During that period, 30 units were produced. The analyst rated the worker as performing at a 90 percent performance rate. Allowances in the firm for rest and personal time are 12 percent.

a. What is the normal time for the task?

b. What is the Standard Time for the task?

Q.5 What are the basic concepts and principles of Total Quality Management (TQM)?

Q.6 A project consists of nine jobs from A to I, with the following precedence relations and time estimates:-

Job	Predecessor	Time(Days)
A	-	15
B	-	10
C	A,B	10
D	A,B	10
E	B	5
F	D,E	5
G	C,F	20
H	D,E	10
I	G,H	15

- Draw the project network.
- Determine the earliest and latest starting and completion times of jobs.
- Identify the critical path.
- Determine the total float of jobs.
- Determine the total float of the jobs.

Q.7 Explain the process of aggregate planning. What are the different costs incurred in aggregate planning.

Q.8 Write Short Notes on:-

- Economic Order Quantity
- ISO Standards.