QUESTION BANK

SUBJECT-INDUSTRIAL ENGG.AND MANAGEMENT
6TH SEMMECHANICAL BRANCH

SHORTQUESTION:- (2MARKS)

1. Defineplantlocationandtypesofplantlocation.
2. Defineplantlayout andtypesofplantlayout.
3. Statethescopesofoperationresearch.
4. HowLPP canbedefined?
5. What isfeasiblesolutionofLPP?
6. Defineproductscheduling.
7. DefineCPM&PERT.
8. Definenetwork.
9. What isanevent?
10. What isanactivity?
11. Define Dummy activity.
12. What do you meanbycriticalpath?
13. DefineEST&LFT.
14. StateFulkerson'sRulefornumbering.
15. HowexpectedtimeiscalculatedfromPERTanalysis?
16. Whatisbatchproductiongiveanexample?
17. Defineinventory.
18. Whatarethedifferentcostsassociatedwithinventory?
19. Whatistheneedofinventorycontrol?
20. DefineEOQ.
21. Define safetystock.
22. Define leadtime.
23. Define re-orderlevel.
24. Write different types inventory models.
25. Define P-system&Q-system inventory.
26. State the objective of inspection.
27. Definequalityandwhyweneedtocontrolit?
28. Define statistical control.
29. What is control chart? Types of control chart.
30. DefineTQM.
31. DefineJIT.
32. Defineleanmanufacturing.
33. Define6sigmalimits.
34. Defineplantmaintenanceanditsobjective.
35. State different type of plant maintenance.

LONGQUESTIONS:-(5 MARKS)

1. Differentiatebetweenplantlocationandplantlayout.
2. Whatarethefactorsinfluencingtheplantlocation?
3. Explainjobtype,batchtypeandcontinuousproductionwiththeircharacteristics.
4. Differentiatebetweenproductandprocesslayout.
5. SolvetheLPPbygraphicalmethod.MaxZ=$3x_1+4x_2$&s.t$4x_1+2x_2\leq80$,$2x_1+5x_2\leq60$,$X_1,x_2\geq0$
6. Solve the LPP by graphical method. Min Z=$10x_1+8x_2$& s.t $2x_1+4x_2\leq80$ $3x_1+2x_2\geq30$, $4x_1+3x_2\geq40$,X_1 ,$x_2\geq 0$
7. Whatisaproject?DifferentiatebetweenCPM &PERT.
8. Drawthenetworkandfindthecriticalpath

ACTIVITY	TIME	ACTIVITY	TIME
1-2	5	5-6	8
1-3	2	5-7	4
2-4	3	6-8	7
3-4	1	7-8	1
3-5	6	8-10	2
4-9	5	9-10	5

9. Drawthenetworkandfindthecriticalpath.

ACTIVITY	PREDECESSOR	TIME(DAYS)
A	-	6
B	-	8
C	A	3
D	A	4
E	B,D	6
F	B,C,D	10
G	E	3

10. DeriveEOQfrombasicinventorymodel.
11. DescribeP-systemand&Q-systemofinventorycontrol.
12. Explaindifferenttypesofinspection.
13. Describequalitycontrolandobjectiveofqualitycontrol.
14. Differentiatebetweenvariablechartsandattributechart.
15. In a manufacturing process the no. Of defectives found in the inspection of 15 lots of 400 timeseachgiven below.

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No ofdefects	2	5	0	14	3	0	1	0	18	8	6	0	3	0	6

Determinethetrialcontrollimitsfornpchart &stateweathertheprocessisincontrol.

16. ExplaintheelementsofTQM.
17. ExplainJITandobjectives ofTQM.
18. Explainleanmanufacturing.
19. Explain6sigma.
20. Explaindifferenttypesof plantmaintenance.

LONGQUESTION:- (10MARKS)

1. A small project is composed of the following activities whose time estimates are given in day.Drawthenetwork,findcriticalpathandcomputevariance.

ACTIVITY	t_o	t_m	t_p
1-2	1	2	5
1-3	2	4	6
1-4	1	2	4
2-5	1	1	3
3-5	2	3	4
4-6	6	4	3
5-6	3	6	7

2. ExplainABCanalysis,advantagesandlimitations.
3. Comparebetween &R chartwithP-chart.
4. ExplainTQMmodel,principle,objective,benefits&elementsofTQM.
5. Explain7s.
6. Whatisplant maintenance?Objective,importanceofplantmaintenance.
7. Explaintheduties,functions&responsibilitiesof plantmaintenancedepartment.