

QUESTION BANK

MSD

1. Define system and its characteristic.
2. What is concurrent engineering?
3. Explain system approach briefly.
4. System is goal seeking. Explain.
5. What are different mechanical systems?
6. What is system design?
7. Explain Entities, attributes and activities.
8. Explain engineering activities matrix.
9. Analyze need statement of a heat pump.
10. What is important of need statement?
11. How initial element of need statement originated?
12. Explain system design where environment and safety are prime concern.
13. What is system analyzed?
14. Explain black box approach.
15. Explain Decision Process approach.
16. What does state of system tell?
17. Explain component integration.
18. Explain origin of system analyze concept.
19. Explain need for modelling.
20. What is mathematical modelling?
21. "Model building is the essence of system design" Explain.
22. Discuss different type of models.
23. What is network flow problem?
24. Discuss the graphical model.
25. Explain shortest path problem.
26. What are the basic rules of drawing a network?

27. Explain benefits of planning project by network analysis.
28. How will you find longest path in a network?
29. Explain objective function and freedom of choice.
30. What are motivation and goals of optimization problems?
31. Explain analytic approach in optimization.
32. Explain subjective optimization.
33. Explain combinatorial optimization and its applications.
34. What is feasibility assessment?
35. How survey is done for feasibility assessment?
36. Explain economic Feasibility.
37. Explain the value of money.
38. Compare various alternatives for system analysis on cost basis.
39. Explain present worth method with suitable example.
40. Explain Annual worth method, Payback Period method, Capitalized worth method.
41. What are different types of taxes?
42. Explain the term VALUE ANALYSIS.
43. Show that right circular cylinder of given surface including the ends and maximum volume is such that its height is equal to diameter of base.
44. What do you mean by utility value?
45. What is law of diminishing return?
46. Classify the decision making model WRT state of knowledge.
47. What do you know about decision making under risk?
48. Explain decision matrix.
49. What is conditional probability?
50. Explain EMV.
51. What is simulation and its practical applications.
52. What is computer simulation?
53. What are busy, queuing and idle entities?
54. What is role of random numbers in simulation?
55. Mention the limitations of simulation approach.
56. Explain closed and open loop system.

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