

64. Which of the following strategy is not the part of automation strategies? :-> **To increase inventory**
65. Which of the following motion is generally possible in hydraulic systems? :-> **either reciprocating or rotational motion**
66. The following component is not included in Computer Integration Manufacturing System :-
> **Rectangular shape**
67. Which of the following power source (s) is used for two robot manipulator? :-> **All the above**
68. What is the working fluid used in pneumatic power drive system: -> **Compressed air**
69. Which of the following automation suitable for high production varieties? :-> **Programmable automation**
70. Identify the methods of work transports :-> **All the above**
71. Which of the following is not the component of manufacturing lead time? :-> **purchase time**
72. Project layout is an appropriate layout for :-> **Job production**
73. Product flow layout is an appropriate layout for :-> **Mass production**
74. Assembly of large ship building is an example of operations in: -> **fixed position layout**
75. Large air craft assembly is an example of operations in :-> **Job production**
76. Fixed automation follows: -> **Mass production**
77. What is the use of flexible automation: -> **Medium production rate**
78. . What is the use of automation strategies? :-> **To increase production rate**
79. Pick out the example of fixed position automation :-> **Transfer lines**
80. Pick out the example of programmable automation: -> **Industrial Robots**

IV/I 1ST MID AIM

1. MRP stands for:->**Material Requirement Planning**
2. What is the advantage of using automated systems? :-> **To improve the quality**
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17. Automated production lines fall in the following type of automation:->**Flexible automation**
18. Pick out the example of fixed position automation :->**Transfer lines**
19. Pick out the example of programmable automation:->**Industrial Robots**
20. Automated production lines fall in the following type of automation:->**Fixed automation**
21. Automated production line are applied in the manufacturing when :->**Long product life and multiple operations are required**
22. Automated production lines consist of :->**both automated and manual stations**
23. Which of the following is not the objective of the use of flow line automation?:->**to increase production costs**
24. In simplest form of work stations, if A = No of parts, B = No of work stations then the relation between A & B is :->**A = B**
25. Production rate of automated production lines depends upon:-> **Production rate of slowest work station**
26. Pallet fixture is used for :->**To move the work part**
27. Which of the following automated production line requires less space:->**Rotary**
28. The key factor of using storage buffers in the automated flow lines is:->**Storage quantity**
29. Storage buffers are located:->**Anywhere in the plant**
30. In case of in-line configuration, which of the following is not correct?:->**Less floor space**
31. Power and free system is referred to as :-> **Asynchronous transfer method**
32. Which of the following mechanism is not a linear transfer mechanism? :->**Rack and pinion**
33. Which of the following mechanism is not a rotary transfer mechanism? :->**Chain drive conveyor system**
34. Which of the following mechanism does not convert a linear motion into a rotational motion?:->**Geneva Mechanism**
35. The most accurate and reliable method of indexing the dial is :->**Cam mechanism**
36. Which of the following is not the favorable factor to consider the use of buffer storage systems?:->**helps continuous running of line**
37. Which of the following is not the main control function of an automatic transfer systems?:->**Cost function**
38. Which of the following transfer line does not fall under Rotary Transfer Lines:->**Roller conveyers**
39. Identify the rotary transfer system:->**Geneva mechanism**

40. Use of storage buffers in the automated flow lines will :->**increase production rates**
41. The many assembly lines in industry contain:-> **both automated & manual work stations**
42. The maximum possible line efficiency can be achieved by :->**Using large capacity buffers**
43. The actual value of line efficiency for a given buffer capacity b is :->**more than the line efficiency without buffer storage and less than the line efficiency with infinite buffer storage**
44. Compute the value of production rate (pieces per hour) using the lower bound approach for the frequency of line stops 0.1 and the production time is 1.5 min?:->**36**
45. If the probabilities of a part that will jam at a particular station i are all equal to P, and the number of stations is n, then the frequency of line stops per cycle with the lower bound approach is equal to
If the probabilities of a part that will jam at a particular station i are all equal to P, and the number of stations is n, then the frequency of line stops per cycle with the lower bound approach is eq:-> **$1 - (1 - P)^n$** (c)
 P^n/n
46. In a 15 station transfer line, the probability that a station breakdown will occur for a given workpart is equal to 0.3. What is the frequency of line stops per cycle on this flow line using the lower bound approach?:->**4.5**
47. In a 20 station transfer line, the probability that a station breakdown will occur for a given workpart is equal to 0.02. What is the frequency of line stops per cycle on this flow line using the upper bound approach?:->**0.4**
48. In a 10 station transfer line, the probability that a station breakdown will occur for a given workpart is equal to 0.01. What is the frequency of line stops per cycle on this flow line using the lower bound approach?:->**0.0956**
49. In a 10 station transfer line, the probability that a station breakdown will occur for a given workpart is equal to 0.01. What is the frequency of line stops per cycle on this flow line using the upper bound approach? :->**0.1**
50. If the probabilities of a part that will jam at a particular station i are all equal to P, and the number of stations is n, then the frequency of line stops per cycle with the upper bound approach is equal to :-> **nP**
51. In the lower bound approach, it is assumed that the work part is:-> **removed from the station when a breakdown occurs at that station**
52. In the upper bound approach, it is assumed that the work part is:->**not removed from the station when a breakdown occurs at that station**
53. If the line efficiency is 50% and the average production time is 5 min, then the proportion downtime is equal to:->**0.5**
54. If the line efficiency is 79% and the average production time is 90 seconds, then the proportion downtime is equal to:->**0.1**
55. If the line efficiency is 60% and the average production time is 1.5 min, then the proportion downtime is equal to:->**0.4**
56. If the ideal cycle time is 1 min and the average production time is 1.6 min then the line efficiency is equal to :->**0.625**
57. The manufacturing department has estimated that the ideal cycle time is 1 min. It is estimated that breakdowns of all types will occur with a frequency 0.1 breakdown/cycle and that the average downtime per line stop will be 6 min. What is the average production rate (pieces per hour)?:->**37.5**
58. The manufacturing department has estimated that the ideal cycle time is 1.5 min. It is estimated that breakdowns of all types will occur with a frequency 0.2 breakdown/cycle and that the average downtime per line stop will be 8 min. What is the average production time per piece?:->**3.1 min**
59. The manufacturing department has estimated that the ideal cycle time is 1 min. It is estimated that breakdowns of all types will occur with a frequency 0.1 breakdown/cycle and that the average downtime per line stop will be 6 min. What is the average production time per piece?:->**1.6 min**
60. The line efficiency is defined as:->**Theoretical production time/Average production time**
61. Which of the following time is not the component of ideal cycle time (T_c):->**Ordering time**
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