1. Demand for a given item is said to be dependent if
   A the item has several children
   B there is a deep bill of materials
   C the finished products are mostly services (rather than goods)
   D there is a clearly identifiable parent

2. Dependent demand and independent demand items differ in that
   A for any product, all components are dependent-demand items
   B the need for independent-demand items is forecasted
   C the need for dependent-demand items is calculated
   D all of the above are true

3. A master production schedule specifies
   A the financial resources required for production
   B what component is to be made, and when
   C what product is to be made, and when
   D the labor hours required for production

4. The ______ is(are) the MRP input detailing which end items are to be produced, when they are needed, and in what quantities.
   A master production schedule
   B gross requirements
   C inventory records
   D assembly time chart
5. A master production schedule contains information about

A  quantities and required delivery dates of all sub-assemblies
B  quantities and required delivery dates of final products
C  inventory on hand for each sub-assembly
D  inventory on hand for each final product

6. In continuous (make-to-stock) operations, the master production schedule is usually expressed in terms of

A  end-items
B  modules
C  kits
D  customer orders

7. In job shop (make-to-order) operations, the master production schedule is usually expressed in terms of

A  end-items
B  modules
C  kits
D  customer orders

8. The ______ is the input to Materials Requirements Planning which lists the assemblies, subassemblies, parts and raw materials needed to produce one unit of finished product.

A  bill of materials
B  net requirements chart
C  inventory records
D  assembly time chart
9. A bill of materials lists the
A times needed to perform all phases of production
B production schedules for all products
C components, ingredients, and materials required to produce an item
D operations required to produce an item

10. One way to facilitate production scheduling and production in firms making a large number of different final products is to use
A planning bills
B modular bills
C phantom bills
D overdue bills

**Answer of MCQ**
1-d 2-d 3-c 4-a 5-b 6-a 7-d 8-a 9-c 10-b

11. The bill of materials contains information necessary to
A convert (explode) net requirements at one level into gross requirements at the next level
B calculate quantities on hand and on order
C convert gross requirements into net requirements
D place an order to replenish the item

12. Which of the following statements best compares modular bills and phantom bills?
A Both pertain to assemblies that are not inventoried.
B There is no difference between the two.
Both pertain to assemblies that are inventoried.

Modular bills represent subassemblies that actually exist and are inventoried, while phantom bills represent subassemblies that exist only temporarily and are not inventoried.

13. The minimum record accuracy required for successful MRP is approximately
A  lower than 90%
B  90%
C  95%
D  99%

14. "Exploding" the bill of materials means
A  converting the bill of materials into components and raw material requirements
B  identifying the lead time of all the components
C  determining the various components' quantities that are already on hand
D  determining the net requirements for all the components

15. Low level coding means that
A  a final item has only a few levels in the BOM structure
B  it is the code for the missing items
C  a component item is coded at the lowest level at which it appears in the BOM structure
D  the top level of the BOM is below level zero and that BOM's are not organized around the finished product

16. Each X requires 2 of component Y; each Y requires 4 of part Z. The lead time for assembly of X is 1 week. The lead time for the manufacture of Y is 1 week. The lead time for the procurement of Z is 6 weeks. The cumulative lead time for X is _____ weeks.
A  48
17. Each R requires 4 of component S; each S requires 3 of part T. The lead time for assembly of R is 1 week. The lead time for the manufacture of S is 2 weeks. The lead time for the procurement of T is 6 weeks. The cumulative lead time for R is ______ weeks.
A  6
B  9
C 12
D 18

18. The MPS calls for 110 units of Product M. There are currently 30 of Product M on hand. Each M requires 4 of Component N. There are 20 units of N on hand. The gross requirements for N are
A  150
B  170
C  300
D  320

19. The MPS calls for 50 units of Product A and 60 of B. There are currently 25 of Product B on hand. Each A requires 2 of Part C; each B requires 5 of C. There are 160 units of C available. The net requirements for C are
A  115
B  175
C  240
D  690
20 Which of the following activities is not part of the software reengineering process model?

A forward engineering  
B inventory analysis  
C prototyping  
D reverse engineering

**Answer of MCQ**

11-a 12-d 13-d 14-a 15-c 16-c 17-b 18-c 19-a 20-c

21. The MPS calls for 110 units of Product A, there are currently 60 of Product A on hand. Each A requires 4 of Part B, there are 20 units of B available. The net requirements for B are

A 20  
B 120  
C 180  
D 240

22. In MRP record calculations, the appearance of a negative value for the gross requirements of an end item in a specific time bucket

A signals the need to purchase that end item in that period  
B implies that value was scheduled by the MPS  
C signals the need for a negative Planned Order Receipt in that period  
D is impossible

23. A material requirements plan contains information with regard to all of the following except
A quantities and required delivery dates of all sub-assemblies
B quantities and required delivery dates of final products
C the capacity needed to provide the projected output rate
D inventory on hand for each final product

24. The number of units projected to be available at the end of each time period refers to
A net requirements
B scheduled receipts
C the projected usage of the item
D the amount projected to be on hand

25. Linking a part requirement with the parent component that caused the requirement is referred to as
A net requirements planning
B a time fence
C pegging
D Kanban

26. In MRP, system nervousness is caused by
A management's attempt to continually respond to minor changes in production requirements
B the use of the lot-for-lot approach
C management's marking part of the master production schedule as "not to be rescheduled"
D the use of phantom bills of materials
27. One of the tools that is particularly useful in reducing the system nervousness in the MRP system is (are)

A modular bills  
B time phasing  
C time fences  
D lot sizing

28. A major strength of MRP is its capability

A to minimize labor hours used in production  
B for timely and accurate replanning  
C to reduce lead times  
D to maximize production throughput

29. Material requirements plan specify

A the quantities of the product families that need to be produced  
B the quantity and timing of planned order releases  
C the capacity needed to provide the projected output rate  
D the costs associated with alternative plans

30. Which of the following statements is true about the MRP plan when using lot-for-lot ordering?

A The quantity of gross requirements for a child item is always equal to the quantity of planned order releases for its parent.  
B The quantity of gross requirements for a child item is equal to the quantity of net requirements for its parent(s) multiplied by the number of child items used in the parent assembly.
C The quantity of gross requirements for a child item is always equal to the quantity of gross requirements for its parent.

D The quantity and gross requirements for a child item is always equal to the quantity of net requirements for its parent.

**Answer of MCQ**

21-c 22-d 23-c 24-d 25-c 26-a 27-c 28-b 29-b 30-b

31. Which of the following lot-sizing-techniques results in the lowest holding costs?

A lot-for-lot

B EOQ

C part-period-balancing

D Wagner-Whitin algorithm

32. What lot sizing technique is generally preferred when inventory holding costs are extremely high?

A lot-for-lot

B EOQ

C part-period balancing

D the Wagner-Whitin algorithm

33. For the lot-for-lot lot-sizing technique to be appropriate

A future demand should be known for several weeks

B setup cost should be relatively small

C annual volume should be rather low
D item unit cost should be relatively small

34. MRP II is accurately described as
A MRP software designed for services
B MRP with a new set of computer programs that execute on micro-computers
C MRP augmented by other resource variables
D usually employed to isolate manufacturing operations from other aspects of an organization

35. Enterprise Resource Planning (ERP) is
A severely limited by current MRP computer systems
B not related to MRP
C an advanced MRP II system that ties-in customers and suppliers
D not currently practical

36. The extension of MRP which extends to resources such as labor hours and machine hours, as well as to order entry, purchasing, and direct interface with customers and suppliers is
A MRP II
B Enterprise Resource Planning
C the master production schedule
D closed-loop MRP

37. Distribution Resource Planning (DRP) is
A a transportation plan to ship materials to warehouses
B a time-phased stock replenishment plan for all levels of a distribution network
C a shipping plan from a central warehouse to retail warehouses
D material requirements planning with feedback loop from distribution centers

38. In what way are Distribution Resource Planning (DRP) and Material Requirements Planning (MRP) similar?
A Both employ similar logic and procedures.
B Both are employed in a manufacturing organization.
C Both work most efficiently with largest lot sizes.
D Both are employed by retail organizations.

39. Enterprise resource planning (ERP)
A has existed for over a decade
B does not integrate well with functional areas other than operations
C is inexpensive to implement
D automates and integrates the majority of business processes

40. Enterprise resource planning (ERP)
A has been made possible because of advances in hardware and software
B uses client/server networks
C creates commonality of databases
D All of the above are true of ERP.

Answer of MCQ
31-a 32-a 33-b 34-c 35-c 36-b 37-b 38-a 39-d 40-d
41. Which of the following is false concerning enterprise resource planning (ERP)?
D  It attempts to automate and integrate the majority of business processes.
C  It shares common data and practices across the enterprise.
B  It is inexpensive to implement.
A  It provides and accesses information in a real-time environment.

42. All of the following are advantages of enterprise resource planning (ERP) except it
A  creates commonality of databases
B  increases communications and collaboration worldwide
C  helps integrate multiple sites and business units
D  requires major changes in the company and its processes to implement

43 MRP stands for:
A  Master Resources Production
B  Materials Requirements Planning
C  Management Reaction Planning
D  Manufacturing Resource Planning

44 MPS stands for:
A  Material Planning System
B  Master Production Schedule
C  Material Production Schedule
D  Master Planning System

45 Closed Loop MRP means:
A. Unused materials are returned to stores and recorded back into the system
B. Capacity and resource planning is included in the MRP logic
C. Actual inventory is counted regularly and adjustment made to the inventory records
D. Actual sales are netted off the forecasts in the MPS

46 Optimized production technology (OPT) is a computer-based technique and tool which helps to schedule production systems. Which of the following are not principles of OPT?
A. Balance flow is what is required
B. Bottlenecks govern throughput
C. Capacity is “king”
D. Process batch should be variable

47 Enterprise Resource Planning (ERP) has been criticised on a number of grounds. Which of the following is not a common criticism of ERP?
A. It doesn’t allow decisions and databases from all parts of the organisation to be integrated
B. It can have a disruptive effect on the organisation’s operations
C. The effect it has on businesses is disappointing
D. Implementation is expensive

48 In MRP (Materials Requirements Planning) the Bill of Materials is:
A. The required output from a process over time
B. A list of required safety stock items
C. The difference between planned receipts and current stocks
D. The product structure showing where common parts are used

49 The outputs of a MRP II system are:
A Sales order priorities / Bills of Materials / Material Requirement Plans
B Material Requirement Plans / scheduled purchase orders / capacity requirement plans
C Stock quantities / Bills of Materials / Master Production Schedule
D Capacity requirement plans / stock quantities / stock locations

50 Three inputs for every MRP system are:
A Master Production Schedule, Bill of Materials, sales forecast
B Sales forecast, delivery costs, capacity plan
C Average replenishment time, re-order point, economic order quantity
D Stock on hand, Master Production Schedule, Bill of Materials

Answer of MCQ

41-c 42-d 43-b 44-b 45-b 46-6 47-a 48-d 49-b 50-d

51. Which of the following is not one of the three most common core ERP components focusing on internal operations?
A Accounting and finance
B Production and materials management
C Business intelligence
D Human resources

52. What activities do accounting and finance components perform?
A Track employee information including payroll, benefits, compensation, performance assessment, and assumes compliance with the legal requirements of multiple jurisdictions and tax authorities.
53. What activities do production and materials management components perform?
A. Track employee information including payroll, benefits, compensation, performance assessment, and assumes compliance with the legal requirements of multiple jurisdictions and tax authorities.
B. Handle the various aspects of production planning and execution such as demand forecasting, production scheduling, job cost accounting, and quality control.
C. Manage accounting data and financial processes within the enterprise with functions such as general ledger, accounts payable, accounts receivable, budgeting, and asset management.
D. None of the above

54. What activities do human resource components perform?
A. Track employee information including payroll, benefits, compensation, performance assessment, and assumes compliance with the legal requirements of multiple jurisdictions and tax authorities.
B. Handle the various aspects of production planning and execution such as demand forecasting, production scheduling, job cost accounting, and quality control.
C. Manage accounting data and financial processes within the enterprise with functions such as general ledger, accounts payable, accounts receivable, budgeting, and asset management.
D. None of the above

55. Which component is a credit-management feature typically included?
A. Accounting and finance components
B. Production and managerial management components
56. Which component can help an organization determine such things as the identification of individuals who are likely to leave the company unless additional compensation or benefits are provided?
A. Accounting and finance components
B. Production and managerial management components
C. Human resource components
D. Production and materials management components

57. Which of the following is an extended ERP component?
A. Business intelligence
B. E-business
C. Customer relationship management
D. None of the above

58. Which extended ERP component collects information used throughout an organization, organizes it, and applies analytical tools to assist managers with decisions?
A. Business intelligence
B. E-business
C. Customer relationship management
D. Supply chain management

59. What are two of the primary features of e-business components?
A. E-procurement
B  E-logistics
C  All of the above
D  None of the above

60. Which channels do ERP vendors need to build for access into the ERP systems?
A  One channel for customers (B2B)
B  One channel for suppliers
C  One channel for partners
D  All of the above

Answer of MCQ
51-c  52-c  53-b  54-a  55-a  56-c  57-d  58-a  59-c  60-d

61. According to Meta Group, what is the average time it takes for the average company to see results from an ERP solution?
A  6 to 12 months
B  8 to 18 months
C  6 to 16 months
D  Impossible to determine

62. According to Meta Group, what is the average savings from a successful ERP implementation?
A  $500,000
B  $1.6 million
C  $5 million
63. Which of the following is a primary risk associated with an ERP implementation?
   A  Quality
   B  Lost information
   C  Cost
   D  Employee turnover

64. Which of the following is a common ERP benefit?
   A  Integrate financial information
   B)  Standardize and speed up manufacturing processes
   C)  Reduce inventory
   D)  All of the above

65. Which of the following is not a common ERP benefit?
   A  Standardize manufacturing processes
   B  Speed up manufacturing processes
   C  Standardize human resource information
   D  Speed up human resources

66. Which of the following is an associated ERP cost?
   A  Purchasing the software
   B  Hiring external experts to help implement the system correctly
   C  Redefining processes
   D  All of the above
67. Which of the following is not an associated ERP cost?
A   Customization
B   Integration and testing
C   Reduce inventory
D   Data conversion

68. Which of the following is not one of the three biggest vendors in the ERP market?
A   SAP
B   Oracle
C   PeopleSoft
D   Microsoft

69. What does an ERP vendor's future success depend on?
A   Its ability to incorporate Internet, e-business, and wireless technology
B   Its ability to incorporate Internet, interface, and wireless technology
C   Its ability to incorporate Interface, e-business, and wireless technology
D   None of the above

70. What is the single most important force reshaping the architecture and functionality of ERP systems?
A   Internet
B   Interface
C   Wireless technology
D   E-business
**Answer of MCQ**

61-b 62b 63-c 64-d 65-d 66-d 67-c 68-d 69-b 70-a

71 Which of the following is not an example of a business process?

A designing a new product
B hiring an employee
C purchasing services
D testing software

72 Which of the following is not a principle that should guide business process reengineering?

A capture data at each source
B fully redocument legacy processes
C organize around outcomes
D put decision point where work is performed

73 Business process reengineering has no start or end—it is an evolutionary process.

A True
B False

74 Business process reengineering is just another silver bullet fad with no real benefits to anyone.

A True
B False
75 How much of software maintenance work involves fixing errors?

A 20 percent
B 40 percent
C 60 percent
D 80 percent

**Answer of MCQ**

71-d 72-b 73-a 74-b 75-a