

# 國立中央大學九十學年度碩士班研究生入學試題卷

所別: 工業管理研究所 乙組 科目: 生產與作業管理 共 3 頁 第 1 頁

(工管所考題)請注意，答題時請清楚標明題號，並以大寫英文字母(A, B, C, D, E)作答，否則以零分計算。共五十題，每題兩分。

1. A contractor who specializes in custom-built homes utilizes the \_\_\_\_ type of manufacturing.  
(A) hybrid  
(B) assembly-to-order  
(C) make-to-stock  
(D) make-to-order  
(E) project
2. The person most responsible for initiating interchangeable parts in manufacturing was  
(A) Eli Whitney.  
(B) Frederick Winslow Taylor  
(C) Henry Ford  
(D) Alfred P. Sloan, Jr.  
(E) Lillian Gilbreth
3. The term Electronic Data Interchange (EDI) is most closely associated with which of the following trends in operations management?  
(A) Just-in-time production  
(B) Service factory  
(C) Computer-related production technologies  
(D) Time-based competition  
(E) Business process reengineering
4. An example of a job shop is:  
(A) consulting  
(B) ship building  
(C) fast-food  
(D) police service  
(E) gourmet restaurant
5. The Service Process Matrix can be used to:  
(A) measure the quality of service operations  
(B) investigate strategic changes of service operations over time  
(C) analyze technological diversity of services  
(D) link organizational and operational goals  
(E) all of the above
6. Operations strategic planning is best understood within the context of:  
(A) corporate level strategic planning  
(B) business level strategic planning  
(C) product level strategic planning  
(D) all of the above  
(E) none of the above
7. The reduction of setup time from 1 hour to 15 minutes on critical production lines is an example of which measurable goal?  
(A) delivery reliability  
(B) delivery speed  
(C) process flexibility  
(D) quality of conformance  
(E) all of the above
8. The strategy of building and maintaining extra capacity is called:  
(A) business level strategic planning  
(B) capacity cushion  
(C) capacity decision  
(D) capacity strategy  
(E) strategic positioning
9. The relationship between a firm's value chain and the value chain of its suppliers and distribution channels is called:  
(A) value analysis  
(B) vertical linkages  
(C) business process reengineering  
(D) vertical integration  
(E) none of the above
10. The random component of demand is:  
(A) the mean value of the time series  
(B) the recurrent upward or downward wavelike conditions that occur over time  
(C) the upward or downward movement over time  
(D) a regular fluctuation that is a function of weather or the time of year  
(E) short erratic movements that follow no discernible pattern
11. A forecasting method that protects the anonymity of the respondents is:  
(A) jury of executive opinion  
(B) sale force composite  
(C) market research surveys  
(D) Delphi method  
(E) naïve extrapolation
12. A scatter diagram is used to:  
(A) determine if multicollinearity exists  
(B) verify a linear relationship between the dependent and independent variables  
(C) measure forecast accuracy  
(D) selecting an appropriate value for the smoothing constant  
(E) selecting an appropriate value for the smoothing constant
13. Production planning and process design are examples of:  
(A) tactical decisions  
(B) economic decisions  
(C) strategic decisions  
(D) sequential decisions  
(E) none of the above
14. The theory of design and manufacturing occurring simultaneously is called:  
(A) product design  
(B) computer-aided design  
(C) quality function deployment  
(D) concurrent engineering  
(E) product families
15. "Zero defections" is a term used to describe:  
(A) a goal for service firms  
(B) quality control  
(C) a goal of standardization  
(D) engineering and technological goals  
(E) manufacturing goals
16. The "voice of the customer" step in developing the House of Quality determines:  
(A) how well we are satisfying customer attributes as compared to our competitors  
(B) how the needs and wants of our customers can be addressed better  
(C) what relationships exist between the customer attributes and the technical requirements  
(D) trade-offs between technical requirements  
(E) none of the above
17. Capacity planning will answer questions concerning:  
(A) how much is required  
(B) when it is required  
(C) what type is required  
(D) all of the above  
(E) A and B only

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18. Zoning, land availability, construction costs and taxes are examples of:  
(A) site considerations  
(B) community considerations  
(C) region considerations  
(D) all of the above  
(E) A and C only
19. ISO9000 certification::  
(A) guarantees quality  
(B) is a requirement for international trade  
(C) insures fitness for use  
(D) guarantees consistency  
(E) all of the above
20. A criterion that consumers use to make a selection among competing products is:  
(A) qualifiers  
(B) assurance  
(C) reliability  
(D) order winner  
(E) poka-yoke
21. Lost goodwill is an example of:  
(A) internal failure costs  
(B) external failure costs  
(C) appraisal costs  
(D) prevention costs  
(E) none of the above
22. Poke-yoka is:  
(A) established series of steps or operations which work together  
(B) quality techniques oriented toward the design of production systems which are nearly foolproof.  
(C) the process continuous improvement.  
(D) the use of teams of individuals as problem solvers  
(E) all of the above
23. The use of computers in interactive engineering drawing and storage of designs is:  
(A) UPC  
(B) CIM  
(C) CAD  
(D) FMS  
(E) CAM
24. Which of the following is NOT a logistics systems component?  
(A) physical supply  
(B) logistical distribution  
(C) internal operations  
(D) physical distribution  
(E) all of the above are logistics system components.
25. Freight consolidation, the practice of combining several smaller shipments into one larger shipment, is effective  
(A) on both inbound as well as outbound shipments  
(B) on inbound shipments only  
(C) on outbound shipments only  
(D) on neither inbound nor outbound shipments  
(E) only when full vertical integration of supply is present
26. \_\_\_\_\_ is medium-term capacity planning with a time horizon of two to eighteen months.  
(A) material requirements planning  
(B) rough-cut capacity planning  
(C) aggregate production planning  
(D) hierarchical production planning  
(E) strategic planning.
27. Which of the following actions is consistent with following a pure level strategy?  
(A) Vary production levels to meet demand requirements  
(B) Vary work force to meet demand requirements  
(C) Vary production levels work force to meet demand requirements  
(D) Use of inventory to meet demand requirements  
(E) None of the above
28. First-tier supplier in a lean production system are  
(A) assigned the job of fabrication individual parts  
(B) a subsidiary of the parent corporation  
(C) responsible for production of a whole component  
(D) concerned with cost reduction  
(E) none of the above
29. A method for comprehensively analyzing the costs of each manufacturing step with the goal of cost improvement is known as  
(A) business process reengineering  
(B) supply chain management  
(C) resource deployment  
(D) value analysis  
(E) vertical integration
30. One of the earliest mathematical approaches to aggregate production planning was the \_\_\_\_\_ developed by Holt, Modigliani, and Simon.  
(A) simplex method  
(B) trial-and error method  
(C) transportation model  
(D) linear decision rule  
(E) heuristic model
31. Of the following types of items, which would generally have dependent demand?  
(A) subassemblies  
(B) component parts  
(C) finished goods  
(D) all of the these  
(E) only A and B
32. Which of the following statements about basic EOQ models is TRUE?  
(A) If annual demand were to double, the EOQ would increase.  
(B) If annual demand were to double, both the EOQ and the number of orders per year would increase.  
(C) If the carrying cost were to increase, the EOQ would fall.  
(D) If the ordering cost were to double, the EOQ would rise.  
(E) All of the above statements are true.
33. The basic Economic Order Quantity model is most relevant for which of the following tasks?  
(A) ordering dependent demand items  
(B) determining fixed order quantities  
(C) calculating single-period inventory quantities  
(D) coordinating the purchase of several related items  
(E) calculating safety stock
34. The \_\_\_\_\_ is not generally a determinant of the reorder point.  
(A) cycle-service level  
(B) length of lead time  
(C) lead time variability  
(D) stockout risk  
(E) item cost
35. Which of the following are generally part of an item's inventory record?  
(A) Quality specifications  
(B) Lead time  
(C) Scrap allowances  
(D) Lot size or lot sizing method  
(E) Only B and D.

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36. The acronym BOM is most closely associated with which of the following terms?  
(A) Master Production Schedule  
(B) net requirements  
(C) scheduled receipts  
(D) product structure diagram  
(E) inventory records
37. The planned order release row in a standard MRP table is calculated by  
(A) performing lead time offsets on the item's net requirements.  
(B) offsetting gross requirements by the item's cumulative lead time.  
(C) subtracting inventory on hand from gross requirements.  
(D) performing lot-sizing on each item in the net requirements row.  
(E) multiplying gross requirements of the parent by the number needed of the child.
38. Which of the following devices may be used to compensate for uncertainty in MRP?  
(A) Safety stock  
(B) Safety lead time  
(C) Scrap allowances  
(D) All of the above  
(E) None of the above; MRP does not have uncertainty.
39. \_\_\_\_\_ is the rough-cut capacity planning technique that uses Bills of Materials and Routing and Standard Time Data accurately determine capacity requirements.  
(A) Capacity Planning using Overall Factors  
(B) Capacity Planning using Capacity Bills  
(C) Capacity Planning using Resource Profiles  
(D) Capacity Requirements Planning  
(E) Material Requirements Planning
40. Which of the following is a shortcoming of capacity planning using overall factors.  
(A) requires time phasing of component requirements  
(B) does not consider standard time data  
(C) does not consider the current status of finished and work in process inventories  
(D) requires more complex calculations than other rough-cut techniques  
(E) all of the above are shortcomings
41. In shop floor management, which of the following items are ordinarily non-value adding activities?  
(A) queue time  
(B) moving  
(C) inspecting  
(D) setup time  
(E) all of the above
42. The dispatching algorithm known as Johnson's rule applies to which of the following situations?  
(A) Any number of jobs to be sequenced at a single machine or facility  
(B) Any number of jobs to be sequenced at two machines or facilities  
(C) Two jobs to be sequenced at two machines or facilities  
(D) Any number of jobs to be sequenced at any number of machines or facilities  
(E) A and B are both correct
43. The Theory of Constraints  
(A) is primarily about the use of linear programming in shop floor control.  
(B) was originally called Synchronous Manufacturing  
(C) offers a method for optimizing shop floor control decisions.  
(D) offers an optimizing technique for eliminating bottleneck resources.  
(E) is none of the above.
44. \_\_\_\_\_ is a major motivation of JIT production systems.  
(A) Reduction of rework and scrap in production  
(B) Economies of scale in batch production  
(C) Reduction of all unnecessary inventory  
(D) Elimination of all sources of value added  
(E) Both A and C are true.
45. JIT systems attempt to increase flexibility and responsiveness between suppliers and customers in order to  
(A) increasing the productive use of resources  
(B) eliminate waste  
(C) improve customer satisfaction  
(D) improve overall competitiveness  
(E) all but A are true
46. Which of the following is NOT among the requirements for implementation of JIT systems?  
(A) production flexibility at every stage of supply  
(B) schedule stability and discipline  
(C) a logistics system to support JIT delivery  
(D) acceptance sampling  
(E) all of the above are required for JIT implementation
47. The term Kanban refers to  
(A) a Japanese term for an quality assurance.  
(B) a computer system used in Japanese firms for JIT production control.  
(C) a production information system using cards or other simple objects for signaling.  
(D) a German super-highway  
(E) none of the above.
48. Which of the following statements regarding project management is TRUE?  
(A) The critical path is the shortest of all paths through the network.  
(B) The critical path is that set of activities that have zero slack.  
(C) Every network has at least one critical path.  
(D) All of the above are true.  
(E) Only B and C are true.
49. Which of the following is a reason for using a dummy activity in PERT/CPM?  
(A) to indicate a zero-length activity duration  
(B) no two activities can have the same starting and ending nodes.  
(C) To clarify cases where activities have some preceding activities in common  
(D) All of the above are valid reasons  
(E) Only B and C are valid reasons.
50. Which of the following statements regarding project management is TRUE?  
(A) Project crashing is a CPM technique.  
(B) Reducing project duration by reducing the duration of one or more critical tasks is called "project crashing."  
(C) Crashing procedures must consider the impact of crashing an activity on all paths in the network.  
(D) Project crashing is an heuristic technique.  
(E) All of the above are true.

