Final Test Semester 4 Paper 23 INDIAN INSTITUTE OF MATERIALS MANAGEMENT Production Planning and Control [PGDMM, PGDSCM & L (2 years)]

Instructions:
1. Answer all 50 questions. Each question carries 2 marks Total: 100 Marks
2. Duration 1 Hour.

*Required

1. Email *

________________________________________

2. Name *

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3. Roll Number *

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4. 1. At the break-even point,

Mark only one oval.

☐ Total cost is more than the sales revenue
☐ Total cost is less than the sales revenue
☐ Total cost is equal to sales revenue
☐ Fixed cost is equal to variable cost
5. 2. The aim of value engineering is to

*Mark only one oval.*

- [ ] Find the depreciation value of a machine
- [ ] Determine the selling price of a product
- [ ] Minimize the cost without change in quality of the product
- [ ] All of the above

6. 3. Work study is concerned with

*Mark only one oval.*

- [ ] Improving present method and finding standard time
- [ ] Motivation of workers
- [ ] Improving production capability
- [ ] Improving production planning and control

7. 4. The production scheduling is simpler and high volume of output and high labour efficiency are achieved in the case of

*Mark only one oval.*

- [ ] Product layout
- [ ] Process layout
- [ ] Fixed position layout
- [ ] A combination of line and process layout

8. 5. The probability distribution of activity times in PERT follows following distribution

*Mark only one oval.*

- [ ] Normal
- [ ] Binomial
- [ ] Beta
- [ ] Exponential
9. ABC analysis deals with

*Mark only one oval.*

- [ ] Analysis of process chart
- [ ] Flow of material
- [ ] Ordering schedule of job
- [ ] Controlling inventory costs money

10. Breakeven analysis is a

*Mark only one oval.*

- [ ] Short term analysis
- [ ] Long term analysis
- [ ] Average of short and long term analysis
- [ ] Any one of these

11. 'Value' for value engineering and analysis purposes is defined as

*Mark only one oval.*

- [ ] Purchase value
- [ ] Saleable value
- [ ] Depreciated value
- [ ] Function/cost

12. A-B-C analysis

*Mark only one oval.*

- [ ] Is a basic technique of materials management
- [ ] Is meant for relative inventory control
- [ ] Does not depend upon the unit cost of the item but on its annual consumption
- [ ] All of the above
13. 10. The product layout

*Mark only one oval.*

- [ ] Lowers overall manufacturing time
- [ ] Requires less space for placing machines
- [ ] Utilizes machine and labour better
- [ ] All of these

14. 11. In break-even analysis, total cost consists of

*Mark only one oval.*

- [ ] Fixed cost
- [ ] Variable cost
- [ ] Fixed cost + variable cost
- [ ] Fixed cost + variable cost + overheads

15. 12. Routing is essential in the following type of industry

*Mark only one oval.*

- [ ] Assembly industry
- [ ] Process industry
- [ ] Job order industry
- [ ] Mass production industry

16. 13. Bin card is used in

*Mark only one oval.*

- [ ] Administrative wing
- [ ] Workshop
- [ ] Foundry shop
- [ ] Stores
17. 14. The break-even point represents

*Mark only one oval.*

- The most economical level of operation of any industry
- The time when unit can run without loss and profit
- Time when industry will undergo loss
- The time when company can make maximum profits

18. 15. Inventory control in production, planning and control aims at

*Mark only one oval.*

- Achieving optimization
- Ensuring against market fluctuations
- Acceptable customer service at low capital investment in inventory
- Discounts allowed in bulk purchase

19. 16. Value engineering aims at finding out the

*Mark only one oval.*

- Depreciation value of a product
- Resale value of a product
- Major function of the item and accomplishing the same at least cost without change in quality
- Break-even point when machine requires change

20. 17. In manufacturing management, the term 'Dispatching' is used to describe

*Mark only one oval.*

- Dispatch of sales order
- Dispatch of factory mail
- Dispatch of finished product of the user
- Dispatch of work orders through shop floor
21. 18. PERT analysis is based on

*Mark only one oval.*

- [ ] Optimistic time
- [ ] Pessimistic time
- [ ] Most likely time
- [ ] All of the above

22. 19. Break-even analysis shows profit when

*Mark only one oval.*

- [ ] Sales revenue > total cost
- [ ] Sales revenue = total cost
- [ ] Sales revenue < total cost
- [ ] Variable cost < fixed cost

23. 20. Gantt charts are used for

*Mark only one oval.*

- [ ] Forecasting sales
- [ ] Production schedule
- [ ] Scheduling and routing
- [ ] Linear programming

24. 21. Basic tool in work study is

*Mark only one oval.*

- [ ] Graph paper
- [ ] Process chart
- [ ] Planning chart
- [ ] Stop watch
22. Which of the following is independent of sales forecast?

*Mark only one oval.*

- [ ] Productivity
- [ ] Inventory control
- [ ] Production planning
- [ ] Production control

23. Which of the following layouts is suited for mass production?

*Mark only one oval.*

- [ ] Process layout
- [ ] Product layout
- [ ] Fixed position layout
- [ ] Plant layout

24. PERT has following time estimate

*Mark only one oval.*

- [ ] One time estimate
- [ ] Two time estimate
- [ ] Three time estimate
- [ ] Four time estimate

25. The Simplex method is the basic method for

*Mark only one oval.*

- [ ] Value analysis
- [ ] Operation research
- [ ] Linear programming
- [ ] Model analysis
29. The production cost per unit can be reduced by

*Mark only one oval.*

- Producing more with increased inputs
- Producing more with the same inputs
- Eliminating idle time
- Minimizing resource waste

30. Process layout is employed

*Mark only one oval.*

- Where low volume of production is required
- Where similar jobs are manufactured on similar machines
- Where machines are arranged on functional basis
- All of the above

31. The basic difference between PERT and CPM is that

*Mark only one oval.*

- PERT deals with events and CPM with activities
- Critical path is determined in PERT only
- Costs are considered on CPM only and not in PERT
- Guessed times are used in PERT and evaluated times in CPM

32. In which of the following layouts, the lines need to the balanced

*Mark only one oval.*

- Process layout
- Product layout
- Fixed position layout
- Plant layout
30. Work study involves

Mark only one oval.

☐ Only method study
☐ Only work measurement
☐ Method study and work measurement
☐ Only motion study

31. Micro motion study is

Mark only one oval.

☐ Analysis of a man-work method by using a motion picture camera with a timing device in the field of view
☐ Motion study observed on enhanced time intervals
☐ Motion study of a sequence of operations conducted systematically
☐ Study of man and machine conducted simultaneously

32. For a small scale industry, the fixed cost per month is Rs. 5000. The variable cost per product is Rs. 20 and sales price is Rs. 30 per piece. The break even production per month will be

Mark only one oval.

☐ 300
☐ 460
☐ 500
☐ 1000

33. Break-even analysis consists of

Mark only one oval.

☐ Fixed cost
☐ Variable cost
☐ Fixed and variable costs
☐ Operation costs
37. 34. A-B-C analysis is used in

Mark only one oval.

- [ ] CPM
- [ ] PERT
- [ ] Inventory control
- [ ] All of these

38. 35. Standard time is defined as

Mark only one oval.

- [ ] Normal time + allowances
- [ ] Normal time + idle time + allowances
- [ ] Normal time + idle time
- [ ] Only normal time for an operation

39. 36. Indirect expenses include

Mark only one oval.

- [ ] Factory expenses
- [ ] Selling expenses
- [ ] Administrative expenses
- [ ] All of these

40. 37. Linear programming can be applied successfully to

Mark only one oval.

- [ ] Chemical industry
- [ ] Oil industry
- [ ] Banks
- [ ] All of these
41. The purpose of micro-motion study is to

*Mark only one oval.*

- [ ] Assist in finding out the most efficient way of doing work
- [ ] Train the individual operator regarding the motion economy principles
- [ ] Help in collecting the motion time data for synthetic time standards
- [ ] All of the above

42. In PERT analysis, critical path is obtained by joining events having

*Mark only one oval.*

- [ ] +ve slack
- [ ] -ve slack
- [ ] Zero slack
- [ ] Dummy activities

43. The main objective of work measurement is to

*Mark only one oval.*

- [ ] Plan and schedule of production
- [ ] Formulate a proper incentive scheme
- [ ] Estimate the selling prices and delivery dates
- [ ] All of the above

44. In break even analysis, total cost consists of

*Mark only one oval.*

- [ ] Fixed cost + sales revenue
- [ ] Variable cost + sales revenue
- [ ] Fixed cost + variable cost
- [ ] Fixed cost + variable cost + profit
45. 42. Gantt chart provides information about the

Mark only one oval.

☐ Material handling
☐ Proper utilization of manpower
☐ Production schedule
☐ Efficient working of machine

46. 43. Graphical method, simplex method, and transportation method are concerned with

Mark only one oval.

☐ Break-even analysis
☐ Value analysis
☐ Linear programming
☐ Queueing theory

47. 44. PERT and CPM are

Mark only one oval.

☐ Techniques to determine project status
☐ Decision making techniques
☐ Charts which increase aesthetic appearance of rooms
☐ Aids to the decision maker

48. 45. The probability distribution of project completion in PERT follows following distribution

Mark only one oval.

☐ Normal
☐ Binomial
☐ Exponential
☐ Gaussian
49. Product layout is employed for

*Mark only one oval.*

- [ ] Batch production
- [ ] Continuous production
- [ ] Effective utilization of machine
- [ ] All of the above

50. The technique of value analysis can be applied to

*Mark only one oval.*

- [ ] Complicated items only
- [ ] Simple items only
- [ ] Crash programmer items only
- [ ] Any item.

51. A feasible solution to the linear programming problem should

*Mark only one oval.*

- [ ] Satisfy the problem constraints
- [ ] Optimise the objective function
- [ ] Satisfy the problem constraints and non-negativity restrictions
- [ ] Satisfy the non-negativity restrictions

52. In inventory control, the economic order quantity is the

*Mark only one oval.*

- [ ] Optimum lot size
- [ ] Highest level of inventory
- [ ] Lot corresponding to break-even point
- [ ] Capability of a plant to produce
50. Break-even point is the point where

*Mark only one oval.*

- Fixed and variable cost lines intersect
- Fixed and total cost lines intersect
- Variable and total cost lines intersect
- Sales revenue and total expense lines intersect