



Reg. No. : .....

Name : .....

**Fifth Semester B.B.A. Degree Examination, November 2014**  
**(Career Related FDP Under CBCSS)**  
**Group 2(b)**  
**Core Course BM 1544 : OPERATIONS MANAGEMENT**  
**(2010 Admn. Onwards)**

Time : 3 Hours

Max. Weights : 30

**SECTION – A**

This Section consists of **four** bunches of **four** questions **each**. **Each** bunch carries a weightage of **1**. Answer **all** questions.

I. Choose the most appropriate answer from the following.

- 1) A Philosophy of manufacturing based on planned elimination of all waste and continuous improvement in productivity
  - a) BEP
  - b) JIT
  - c) CPM
  - d) PERT
- 2) Two-bin technique is one of the oldest system of
  - a) Inventory control
  - b) Production control
  - c) Process control
  - d) Cost control
- 3) The cost of inventories include
  - a) Ordering Cost
  - b) Carrying Cost
  - c) Capacity Cost
  - d) All the three
- 4) Which one of the following is not a material handling equipment ?
  - a) Conveyers
  - b) Cranes
  - c) Computer
  - d) Containers

II. Choose the most appropriate from the following.

- 5) Bill of materials is a
  - a) Sales document
  - b) Government document
  - c) Financial document
  - d) List of materials required



- 6) A set of International standards on quality management and quality assurance adopted in 1987  
 a) ISO 14000      b) ISO 9000      c) ISO 9001      d) ISO 9002
- 7) Operating characteristic curves are tools of  
 a) Material control      b) Financial control  
 c) Quality control      d) Expenditure control
- 8) Activity in the network diagram that consumes no time or resource  
 a) Successor activity      b) Processor activity  
 c) Dummy activity      d) Predecessor activity

III. Fill in the blanks by choosing the most suitable answer.

- 9) Physical location where a particular set of task is performed is called \_\_\_\_\_  
 a) Work station      b) Work centre  
 c) Factory      d) Industry
- 10) Arranging a production line so as to enable even flow of production from one work station to another is termed as \_\_\_\_\_  
 a) Line layout      b) Process layout  
 c) Line balancing      d) Fixed layout
- 11) ERP stands for \_\_\_\_\_  
 a) Energy Resource Planning      b) Enterprise Resource Planning  
 c) Economic Resource Planning      d) None of these
- 12) \_\_\_\_\_ is not a factor influencing facility layout.  
 a) Product      b) Machinery  
 c) Managerial policies      d) Accounting practice

IV. Match the following.

**A**

- 13) ABC  
 14) CPM  
 15) NP chart  
 16) Elevators

**B**

- a) Net Work analysis  
 b) Quality Control  
 c) Material handling  
 d) Material Control Tool  
 e) Location

(4×1=4 Weightage)



SECTION – B

Write short notes on **any 8** of the following questions in **one or two** sentences **each**. **Each** question carries a weightage of **1**.

- 17) Define operations Management.
- 18) State any four elements of operations strategy.
- 19) Give four examples of service processes.
- 20) What is meant by operations design ?
- 21) Define the term plant layout.
- 22) What are the steps in the selection of location for an industrial unit ?
- 23) What do you mean by product layout ?
- 24) Define production planning. State its main objective.
- 25) Explain 'Facility loading'.
- 26) Explain MRP.
- 27) What is meant by project scheduling ?
- 28) What is acceptance sampling ? **(8×1=8 Weightage)**

SECTION – C

Answer **any five** questions in **not** exceeding **one** page **each**. **Each** question carries a weightage of **2**.

- 29) What is Total Quality Management ? What are its objectives ?
- 30) What is Material Planning ? State its significance and benefits.
- 31) Give an overview of Just-In-Time (JIT) concept.
- 32) Briefly explain the factors that affect the selection of materials handling equipments.
- 33) What is EOQ ? State its assumptions.



- 34) Discuss the impact of poor maintenance.
- 35) Give a brief account of applications of Network analysis.
- 36) Discuss the advantages and disadvantages of MRP. **(5×2=10 Weightage)**

#### SECTION – D

Answer **any two** questions in **not more than four** pages. **Each** question carries a weightage of **four**.

- 37) Discuss the recent trends in production and operations management.
- 38) Enumerate and explain the major factors governing plant location.
- 39) What is statistical quality control ? Describe the charting techniques of SQC for variables and attributes. **(2×4=8 Weightage)**





II. Choose the most **appropriate** answer from the following :

5) Which of the following is the world's largest retailer ?

- a) Nike
- b) Wal-Mart
- c) Best Buy
- d) Staples

6) A store \_\_\_\_\_ is the mental picture, or personality of the store, a retailer likes to project to customers.

- a) Personnel
- b) Design
- c) Image
- d) Location

7) In India, retail chains like S. Kumar's Bombay Dying and Raymonds are engaged in \_\_\_\_\_ sector.

- a) Steel
- b) Pharmacy
- c) Hospitality
- d) Textile

8) Free form type of layout is otherwise called \_\_\_\_\_ layout.

- a) Boutique
- b) Grid
- c) Race track
- d) Loop

III. State the whether the following statements are **true** or **false** :

9) There is boom in the retail trade in India due to increase in the disposable income of the middle class households.

10) Indian retail industry is one of the largest contributors to the GDP of the country.

11) A hypermarket is self service format and offers low prices to the customers.

12) Any one who regularly purchases goods from a store or a company is termed as consumer.



IV. Match the following :

- |   |                       |
|---|-----------------------|
| 13) Final link in distribution chain  | a) Internet retailing |
| 14) Enables the customers to choose from a wide selection of brands, designs etc. at one location | b) Hypermarket        |
| 15) An example of non-store channel of retailing  | c) Supermarket        |
| 16) The largest retail format in the world  | d) Retailer           |
|   | e) Assortment         |

SECTION – B

(8x1=8 Wt.)

Answer **any eight** questions. Answer in **one or two** sentences. **Each** question carries a weight of 1.

17. Define retailing.
18. What do you understand by retail formats ?
19. Name any two departmental stores in India.
20. What is retail marketing ?
21. What do you mean by retail consumer behaviour ?
22. What do you mean by visual merchandising ?
23. What are convenient stores ?
24. What do you understand by store layout ?
25. What is grid layout ?
26. Give two examples of non-store based formats of retailing.
27. What is the use of POP display ?
28. Define culture.



## SECTION – C

(5×2=10 Wt.)

Answer **any five** questions. Answer in **one** paragraph. **Each** question carries a weight of 2.

29. Enumerate the elements of retailing industry.
30. What are the environmental factors affecting consumer buying decisions ?
31. Name any five prominent Indian retail players.
32. Discuss the stages involved in retail buying process.
33. What are the factors affecting the retail store image ?
34. What are the factors affecting decision of store location ?
35. Discuss the objectives of a retail store outlet.
36. Give a brief account of how information technology helps the retailer.

## SECTION – D

(2×4=8 Wt.)

Answer **any two** questions in **not** exceeding **four** pages **each**. **Each** question carries a weight of 4.

37. Discuss in detail the features of retail management.
  38. Examine the factors responsible for the development of retail sector in India.
  39. Discuss various types of retail store sales promotion.
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**Fifth Semester B.B.A. Degree Examination, November 2014  
(Career Related FDP under CBCSS)**

**Group 2 (b)**

**Core Course : BM 1541 : OPERATIONS RESEARCH  
(2010 Admn. onwards)**

Time : 3 Hours

Max.Weights : 30

**SECTION – A**

This Section consists of **four** bunches of **four** questions **each**. Each bunch carries a weightage of 1. Answer **all** questions. **(4×1= 4 Wt.)**

1. Choose the most appropriate answer from the following :

1) The rank of the matrix  $\begin{bmatrix} 1 & 2 & 3 \\ 3 & 6 & 9 \\ 2 & 4 & 6 \end{bmatrix}$  is

a) 0                      b) 1                      c) 2                      d) 3

2) Given a system of  $m$  simultaneous linear equations in  $n$  unknowns ( $m < n$ ), the number of basic variables will be

a)  $m$                       b)  $n$                       c)  $n - m$                       d)  $n + m$

3) If the constraints of an LPP are of ' $\leq$ ' type, then to find the optimum solution, we add

a) slack variables                      b) surplus variables  
c) artificial variables                      d) basic variables

4) Which one of the following methods is used to obtain the optimum solution of an assignment problem ?

a) North west corner rule                      b) Hungarian method  
c) Least cost entry method                      d) Vogel's approximation method



II. Choose the most appropriate answer from the following.

- 5) The assignment problem is a special case of transportation problem in which the number of origins.
- equals the number of destinations
  - is greater than the number of destinations
  - is less than the number of destinations
  - is less than or equal to the number of destinations
- 6) The time interval between starting the first job and completing the last job is called
- processing time
  - total elapsed time
  - Idle time
  - none of these
- 7) If the players select the same strategy each time, then it is referred to as
- pure strategy
  - mixed strategy
  - optimum strategy
  - pay off
- 8) The other term used to activity slack time is
- total float
  - free float
  - independent float
  - all of these

III. Fill in the blanks by choosing the suitable answers :

- 9) Dominance property is based on \_\_\_\_\_
- superiority of pure strategies
  - inferiority of pure strategies
  - inferior to an average of two or more other pure strategies
  - All of these
- 10) If every element above (or below) the leading diagonal is zero, the matrix is called \_\_\_\_\_
- null matrix
  - triangular matrix
  - row matrix
  - column matrix
- 11) If  $M_{ij}$  is the minor of the square matrix  $A = (a_{ij})$ , then the signed minor  $(-1)^{i+j} M_{ij}$  is called \_\_\_\_\_
- Determinant of A
  - Co-factor of  $a_{ij}$
  - Adjoint of A
  - None of these
- 12) In an assignment problem involving four workers and three jobs, then total number of assignments possible are \_\_\_\_\_
- 4
  - 3
  - 7
  - 12



IV. State whether the following statements are 'True' or 'False' :

- 13) Graphical method of linear programming is not useful when there are only two decision variables.
- 14) A slack variable cannot be present in the optimum basis of an LPP.
- 15) It is not necessary for the aggregate demand to be equal to the aggregate supply in a transportation problem.
- 16) In a two person zero-sum game, a game is said to be fair if both the players have equal number of strategies.

#### SECTION – B

Write short notes on **any eight** of the following. Answer in **one** or **two** sentences. **Each** question carries a weightage of 1. (8×1=8 Wt.)

- 17) Rank of a matrix.
- 18) General linear programming problem.
- 19) Adjoint of a matrix.
- 20) Initial basic feasible solution of a transportation problem.
- 21) Least cost method.
- 22) Unbalanced transportation problem
- 23) 2 machines n job sequencing.
- 24) Alternate solution in a transportation problem.
- 25) Minimax principle.
- 26) Saddle point.
- 27) PERT.
- 28) Pessimistic time.

#### SECTION – C

Answer **any five** questions in **not exceeding one** paragraph each. **Each** question carries a weight of 2. (5×2=10 Wt.)

29) If  $A = \begin{bmatrix} 1 & -2 & 3 \\ 2 & 3 & -1 \\ -3 & 1 & 2 \end{bmatrix}$  and I is the unit matrix of order 3, evaluate  $A^2 - 3A + 9I$ .

- 30) Describe briefly the application of linear programming in business field.



- 31) Explain the various steps involved in solving a LPP by graphic method.
- 32) Explain some of the areas where transportation techniques are employed.
- 33) What are unbalanced assignment problems? How are they solved?
- 34) Write a short note on group replacement.
- 35) Describe Hungarian method.
- 36) Write a short note on salesman routing problem.

## SECTION - D

Answer **any two** questions in not exceeding **four** pages each. **Each** question carries a weight of **4**. **(2x4=8 Wt.)**

- 37) Solve the following LPP

$$\text{Maximize } z = 8x_1 + 6x_2$$

Subject to

$$4x_1 + 2x_2 \leq 60$$

$$2x_1 + 4x_2 \leq 48$$

$$x_1, x_2 \geq 0.$$

- 38) Determine an initial basic feasible solution to the following transportation problem using NW corner rule.

	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	Supply
O <sub>1</sub>	6	4	1	5	14
O <sub>2</sub>	8	9	2	7	16
O <sub>3</sub>	4	3	6	2	5
Demand	6	10	15	4	

- 39) Solve the following assignment problem.

	I	II	III	IV	V
A	1	3	2	3	6
B	2	4	3	1	5
C	5	6	3	4	6
D	3	1	4	2	2
E	1	5	6	5	4



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**Fifth Semester B.B.A. Degree Examination, November 2014**  
**(Career Related FDP under CBCSS)**  
**Group 2(b)**  
**Core Course BM 1543 (2010 Admn.)/Core Course BM 1542**  
**(2011-2012 Admn.)**  
**RESEARCH METHODOLOGY**

Time : 3 Hours

Max. Weights : 30

**SECTION – A**

This Section consists of **four** bunches of **four** questions **each**. **Each** bunch carries a weightage of 1. Answer **all** questions.

I. Choose the most appropriate answer from the following.

1) A good research is

- |                |                   |
|----------------|-------------------|
| a) Informative | b) Systematic     |
| c) Interesting | d) Understandable |

2) Which method of research is based on the principle that out of generalisations some conclusions are drawn ?

- |              |               |              |               |
|--------------|---------------|--------------|---------------|
| a) Inductive | b) Historical | c) Deductive | d) Case study |
|--------------|---------------|--------------|---------------|

3) A proposition which can be put to test to determine validity is

- |                   |                 |
|-------------------|-----------------|
| a) Test statistic | b) Type 1 error |
| c) Hypothesis     | d) Research     |

4) Which one of the following is a source of secondary data ?

- |                |              |                  |              |
|----------------|--------------|------------------|--------------|
| a) Observation | b) Interview | c) Questionnaire | d) Newspaper |
|----------------|--------------|------------------|--------------|

II. Choose the most appropriate answer from the following.

5) Principles of probability is applied in

- |                         |                           |
|-------------------------|---------------------------|
| a) Quota sampling       | b) Simple random sampling |
| c) Convenience sampling | d) Judgement sampling     |





## SECTION – B

Write short notes on **any eight** of the following. Answer in **one** or **two** sentences. **Each** question carries a weightage of 1.

- 17) Social Research.
- 18) Inductive method.
- 19) Descriptive Research.
- 20) Primary data.
- 21) Rating scales.
- 22) Questionnaire.
- 23) Null Hypothesis.
- 24) Research Design.
- 25) Stratified Random Sampling.
- 26) Tabulation.
- 27) Graphs.
- 28) Binary Number System.

(8×1=8 Wgts.)

## SECTION – C

Answer **any five** questions in **not** exceeding one paragraph **each**. **Each** question carries a weightage of 2.

- 29) Distinguish between fundamental and applied research.
- 30) What is a case study ? State its characteristics.
- 31) Distinguish between Questionnaires and Schedules.
- 32) What is meant by classification ? State the types and objects of classification.



- 33) What are the requisites of a good table ?
- 34) What are the characteristics of a good sample ?
- 35) What is a bar diagrams ? What are the various types of bardigram ?
- 36) Write notes on role of computer in research work. **(5×2=10 Wgts.)**

#### SECTION – D

Answer **any two** questions in **not exceeding four** pages. Each question carries a weightage of 4.

- 37) Explain in detail the contents of a research report.
- 38) Explain the meaning, significance and process of research.
- 39) Discuss the different tools for primary data collection. **(2×4=8 Wgts.)**
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