

(1401 CC)

B.B.M. DEGREE EXAMINATION,  
MARCH/APRIL 2016.

(Supplementary)

(Examination at the end of First Year)

Part II

MICRO ECONOMICS

(Regulation 2010-11)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Define Economics. Explain the nature and significance of it.
2. Explain the law of Diminishing Marginal utility, what are the exceptions to it?
3. Explain the consumer equilibrium with the help of indifference curves.
4. Explain the law of demand, are there any exceptions to it.

5. Explain the law of variable proportions, with the help of diagram.
6. Explain the features, and price determination under perfect competition.
7. Explain the equilibrium of the short run and long run under monopoly.
8. Write the features of oligopoly, how is the price determination under oligopoly?
9. Critically examine the marginal productivity theory of distribution.
10. Explain the following :
  - (a) Micro Economics – Macro Economics
  - (b) External Economies
  - (c) Selling Costs.

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(Supplementary)

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Part II

MANAGERIAL ECONOMICS

(Regulation 2013-2014)

Time : Three hours

Maximum : 70 marks

PART A — (5 × 10 = 50 marks)

Answer ONE of the following selecting ONE from  
each unit.

UNIT I

1. (a) Distinguish between micro and macro economics.

Or

- (b) Explain the properties of indifference curve.

UNIT II

2. (a) Explain different kinds of price elasticity of demand with suitable diagrams.

Or

- (b) Explain the law of supply and its exceptions.

### UNIT III

3. (a) Explain how price is determined under perfect competition.

Or

- (b) State the conditions of Equilibrium of firm and industry under Monopolistic Competition.

### UNIT IV

4. (a) What is National Income? How is it calculated?

Or

- (b) Explain the causes of Trade cycles.

### UNIT V

5. (a) Explain the functions of a central bank.

Or

- (b) "Loans are the children of deposits, deposits are the children of loans" – Explain.

PART B — (4 × 5 = 20 marks)

Answer any FOUR questions from the following each question carries 5 marks.

6. Scope of Economics.  
7. Cardinal and Ordinal Utilities.

8. Cross Demand.

9. Determinants of supply.

10. Price Discrimination.

11. Gross National Product.

12. Open Market Operations.

13. Phases of Trade Cycles.

9. (a) Define operation Research what are the different types of models used in operation research. Describe these models in briefly.
- (b) A Shop keeper sells not more than 20 shirts of each colour. Atleast twice as many white ones are sold as green ones. If the profit on each of the white be Rs. 20 and that of Green be Rs. 25. How many of each kind be sold to give him a maximum profit?

(1402 CC)

B.B.M. DEGREE EXAMINATION,  
MARCH/APRIL 2016.

(Supplementary)

(Examination at the end of First Year)

Part II

BUSINESS MATHEMATICS

(Regulation 2010-11)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. (a) Explain the role of computers in mathematical models.
- (b) Explain the concept and nature of decision making.
2. (a) Find the middle term in the expansion of  $\left(\frac{a}{x} - bx\right)^{12}$ .
- (b) If  $nP_4 = 12 \cdot nP_2$  find  $n$ .
- (c) Solve the equation  $2x^2 - 10x + 5 = 0$ .
- (d) Insert 5 geometric means between 320 and 5.

3. (a) If  $\mu = \{x/x \text{ is positive integer less than } 25\}$ .

$A = \{2, 6, 8, 14, 22\}$ ,  $B = \{4, 8, 10, 14\}$  find  
 $(A \cap B)^1 = A^1 \cup B^1$ .

(b)  $\lim_{x \rightarrow 0} \frac{x^2 + 2x - 15}{x^2 - 9}$ .

- (c) If  $f(x) = 4x - 1$ ,  $g(x) = x^2 + 2$  then find

(i)  $g \circ f(x)$

(ii)  $f \circ f(x)$ .

4. (a) If the vectors  $\vec{a} = 2\vec{i} - \vec{j} + \vec{k}$ ,  $\vec{b} = \vec{i} + 2\vec{j} - 3\vec{k}$ ,  
 $\vec{c} = 3\vec{i} + p\vec{j} + 5\vec{k}$  are coplanar then find  $P$ .

(b) If  $A = \begin{pmatrix} 2 & 3 & -1 \\ 3 & 0 & 2 \end{pmatrix}$ ,  $B = \begin{pmatrix} 1 \\ 1 \\ 2 \end{pmatrix}$ ,  $C = (1, -2)$  prove

that  $(AB)C = A(BC)$ .

5. (a) If  $A = \begin{bmatrix} -1 & -2 & -2 \\ 2 & 1 & -2 \\ 2 & -2 & 1 \end{bmatrix}$  then show that

$\text{adj}A = 3A^T$ .

- (b) Solve the following equations by matrix inverse method  $x + y + z = 1$ ,  $2x + 2y + 3z = 6$ ,  
 $x + 4y + 9z = 3$ .

6. (a) Find the derivative of

(i)  $5^x + \log x + x^3 e^x$

(ii)  $\sqrt{x} + 2x^{3/4} + 3x^{5/6}$ .

- (b) Find the maxima and minima of the following function  $x^4 + 2x^3 - 3x^2 - 4x + 4$ .

7. (a) If  $u = \log(x^2 + y^2)$  prove that  $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0$ .

- (b) Find the point on the curve  $x^2 - y^2 = 2$  which the slopes of tangents are equal to 2.

8. Evaluate the following.

(a)  $\int x e^x dx$

(b)  $\int \frac{dx}{x^2 - 9} dx$

(c)  $\int \cot^2 x dx$

(d)  $\int_0^2 \sqrt{4 - x^2} dx$ .

SECTION B — (4 × 5 = 20 marks)

Answer any FOUR questions.

6. How many telephone connections can be allotted with 5 and 6 digits from the natural numbers 1 to 9 inclusive?
7. Evaluate :
  - (a)  $\lim_{x \rightarrow 0} \frac{\sqrt{1+x}}{x}$
  - (b) If  $A = \{2, 3, 4, 5\}$  and  $B = \{5, 7, 8\}$  find  $A \cap B$  and  $A \cup B$ .
8. Find the adjoint of the matrix  $\begin{bmatrix} 1 & 2 \\ 3 & -5 \end{bmatrix}$ .
9. Show that the maximum values of the function  $x^3 e^{-x}$ .
10. Find  $\int_2^4 (3x-2)^2 dx$ .
11. Find derivative of  $7x^4 + 3x^3 - 9x + 5$ .
12. Find the compound interest on Rs. 10,000 for 3 years at 5% per annum.
13. Find the simple interest on Rs. 5,200 at 10% per annum for 2 years.

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(Supplementary)

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Part – II

BUSINESS MATHEMATICS

(Regulation 2013-14)

Time : Three hours

Maximum : 70 marks

SECTION A — (5 × 10 = 50 marks)

Answer ALL questions. Selecting one from each unit.

UNIT I

1. (a) Explain the concept and nature of decision making.

Or

- (b) The first and the last terms of an A.P. are -4 and 146 respectively and the sum of A.P. is 7171. Find the numbers of terms of the A.P. and also its common difference.

## UNIT II

2. (a) Verify whether the set of vectors  $\bar{i} + 2\bar{j} + 3\bar{k}$ ,  $2\bar{i} + 3\bar{j} + \bar{k}$  and  $3\bar{i} + \bar{j} + 2\bar{k}$  is linearly dependent.

Or

- (b) (i) If  $A = \{2, 4, 7, 9\}$ ,  $B = \{1, 5, 7\}$  find  $A \Delta B$ .
- (ii) If  $f(x) = 2x + 4$ ,  $g(x) = 3x + 5$  find
- (1) fog
- (2) gof.

## UNIT III

3. (a) (i) If  $A = \begin{bmatrix} 9 & 1 \\ 4 & 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} 1 & 5 \\ 7 & 12 \end{bmatrix}$  find the matrix  $X$  such that  $3A + 5B + 2X = 0$ .

- (ii) Compute the inverse of the matrix

$$\begin{bmatrix} 1 & 0 & -4 \\ -2 & 2 & 5 \\ 3 & -1 & 2 \end{bmatrix}$$

Or

- (b) Solve the following system of equations  $2x - y + 3z = 8$ ,  $-x + 2y + z = 4$ ,  $3x + y - 4z = 0$  by cramer's method.

## UNIT IV

4. (a) (i) Differential  $x^2 e^x$  w.r.to  $x$ .

- (ii) Find the  $\int x \cos^2 x \, dx$ .

Or

- (b) If  $u = \log(x^2 + y^2)$  prove that  $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0$ .

## UNIT V

5. (a) (i) If the simple interest on a certain sum of money for 3 years of 5% is Rs. 150. Find the corresponding CI.

- (ii) If  $P = 6,500$ ,  $R = 2\frac{1}{3}\%$ ,  $I = 445$  then  $T = ?$

Or

- (b) Find the compound interest on Rs. 6,950 for 3 years if interest is payable half yearly, the rate for the first two years being 6% p.a. and for the third year 9% p.a.

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B.B.M. DEGREE EXAMINATION, MARCH/APRIL 2016.

(Supplementary)

(Examination at the end of First Year)

Part II

FINANCIAL ACCOUNTING

(Regulation 2010-2011)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. What are the basic accounting concepts? Discuss.
2. What are the causes for differences between cash book and pass book?
3. Explain the errors which are disclosed by the trial balance.
4. Write any ten differences between trade bill and accommodation bill.
5. Write different methods of calculation of good will.
6. Enter the following transactions in three column cash book.

2014, December	Rs.
1 Cash in hand	16,000
2 Opens a bank account with	7,000
3 Cash purchases	600
4 Received a cheque of Rs. 400 from Prabhakar and discount allowed to him Rs. 25.	
6 Cash sales	1,200
7 Received a cheque from Venu for interest	100
9 Salary paid to the manager by cheque	450
11 Withdrew from bank for personal use	300
15 Purchased a bicycle for office use	300
18 Paid office rent	80
20 Sold goods for cash	900
22 Purchased government bonds	700
25 Paid travelling allowance to the manager	150
27 Received commission	175
28 Advertisement expenses paid by cheque	50
29 The cheque received from Prabhakar on 4 <sup>th</sup> December was dishonored	
31 Cash expenses of Rs. 2,000 was paid into bank.	



7. From the Trial balance of Kumar, Prepare final accounts for the year ended 31-12-2009.

Debit balances	Rs.	Credit balances	Rs.
Purchases	68,000	Sales	99,000
Salaries	1,500	Capital	80,000
Rent	1,000	Creditors	25,000
Insurance	1,000	Commission	2,000
Debtors	20,000	Provision for bad debts	2,100
Plant	50,000	Bills payable	5,000
Furniture	9,000		
Cash at bank	20,000		
Opening Stock	25,000		
Bills receivables	16,000		
Wages	1,600		
	<u>2,13,100</u>		<u>2,13,100</u>

Adjustments:

- Closing stock on 31-12-2009 was Rs. 30,000.
  - Outstanding salaries Rs. 200.
  - Depreciate plant by 10% and furniture 5%.
  - Provide 5% reserve for bad debts on debtors.
  - Prepaid wages Rs. 100.
8. On 1-1-2001 X company Ltd. Purchased a machine for Rs. 60,000 and Rs. 20,000 were spent on its erection immediately. On 1-7-2002 another machine was purchased for Rs. 52,000 and on 1-7-2003 the first machine was sold for Rs. 64,000. On the same date another machine was purchased for Rs. 50,000. On 1-7-2004 the second machine was sold for Rs. 46,000. Depreciation was provided on the machine @ 10% p.a. on the original cost annually, on 31 December.

Prepare machine account for the above four calendar years.

9. The balance sheet of Ajay and Prasad on 31<sup>st</sup> December, 2010 is set out below :

They share profits and losses in the ratio of 2:1.

Liabilities	Rs.	Assets	Rs.
Ajay's capital	40,000	Free hold property	20,000
Prasad's capital	30,000	Furniture	6,000
General reserve	24,000	Stock	12,000
Creditors	16,000	Debtors	60,000
		Cash	6,000
		Profit and loss account	6,000
	<u>1,10,000</u>		<u>1,10,000</u>

They agreed to admit Kwnar in to the firm subject to the following terms and conditions:

- (a) Kumar will bring in Rs. 21,000 of which Rs. 9,000 will be treated as his share of goodwill to be retained in the business.
- (b) He will be entitled to one-fourth share of the profits.
- (c) 50% of the general reserve is to remain as a provision for bad and doubtful debts.
- (d) Depreciation is to be provided on Furniture @ 5%.
- (e) Stock is to be revalued at Rs. 10,500.

Give journal entries to give effect to these arrangements and construct the balance sheet of the new firm.

10. X ltd. Invited applications for 1,00,000 shares of Rs. 10 each at a discount of 6% payable as follows:

On application Rs. 2.50; on allotment Rs. 3.40 and on First and final call Rs. 3.50.

The applications received were for 90,000 shares and all of these were accepted. All money due was received except the first and final call on 1,000 shares.

Pass necessary entries in the journal of the company. Also show how these transactions would appear in balance sheet of the company.

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(Supplementary)

(Examination at the end of First Year)

Part III

FINANCIAL ACCOUNTING

(Regulation 2013-2014)

Time : Three hours

Maximum : 70 marks

SECTION A — (5 × 10 = 50 marks)

Answer FIVE of the following taking one question from each Unit.

UNIT I

1. (a) Explain about various concepts and convention.

Or

- (b) Enter the following transactions in the journal of Vijay for the month of March 2013.

2013, March

Rs.

1	Vijay commenced business with a capital of	30,000
2	Bought machinery	5,000
3	Bought goods for cash from madanlal	2,500
4	Purchased goods from Smitha	3,000
5	Sold goods for cash to Giri	4,000
6	Cash sales	5,000
10	Received interest from Mukunda	2,000
11	Deposited cash into bank	6,000
18	Paid cash to Smitha in full settlement of his account	2,900
28	Paid rent by cheque	500

UNIT II

2. (a) What is cash book? Explain different kinds in cash book.

Or

- (b) From the following transactions, write up the cash book with three columns and bring down the balance.

2010, July

Rs.

1	Commenced business with cash	15,000
2	Incurred operating expenses	500
2	Paid into the bank	13,500
3	Paid Raman by Cheque	3,450
	Discount allowed by him	50
4	Paid carriage on goods	85

5	Brought furniture by cheque	700
8	Received cheque from Kannan	3,300
	Discount allowed	60
8	Cash sales	2,500
9	Deposited into bank	2,400
10	Cheque purchases	5,000

### UNIT III

3. (a) Explain the errors which are disclosed by the trial balance.

Or

- (b) Prepare final accounts of Praveen kumar for the year ending 31-03-2014 from the following Trial balance.

Debit balances	Rs.	Credit balances	Rs.
Drawings	10,000	Capital	80,000
Furniture	5,200	Bank O.D	8,400
Taxes and Insurance	4,000	Creditors	17,600
Buildings	40,000	Sales	3,00,000
Stock (1-4-2013)	44,000	Discount	4,000
Debtors	36,000	Bills payable	4,000
Rent	2,000		
Purchases	2,20,000		
Return inward	4,000		
General expenses	8,000		
Salaries	18,000		
Commission	4,400		
Carriage on purchases	3,600		
Bad debts	1,600		
Discount	3,200		
Bills receivables	10,000		

#### Adjustments:

- Closing stock was Rs. 42,000
- Charge 10% interest on drawings
- Provide for depreciation Rs. 2,000 on buildings and Rs. 500 on Furniture.
- Provide 5% for provision for doubtful debts.
- Charge 5% Interest on capital.

## UNIT IV

4. (a) Write about different types of debentures.

Or

- (b) A company invited the public to subscribe for 10,000 Equity shares of Rs. 100 each at a premium of Rs. 10 per share payable on allotment. Payments were to be made as follows:

On application Rs. 20; on allotment Rs. 40; on first call Rs. 30 and on final call Rs. 20.

Applications were received for 13,000 shares; applications for 2,000 shares were rejected and allotment was made proportionately to the remaining applicants. Both the calls were made and all the moneys were received except the final call on 300 shares which are forfeited after due notice. Later 200 of the forfeited shares were issued as fully paid at Rs. 85 per share.

Pass Journal entries.

## UNIT V

5. (a) Write the proforma of company balance sheet according to companies Act. 1956.

Or

- (b) A limited company was registered with an authorized capital of Rs. 30,00,000 in equity shares of Rs. 10 each. Following is the list of balances extracted from its books on 31-3-2013:

	Rs.		Rs.
Purchases	9,25,000	General expenses	84,175
Wages	4,24,325	Stock on 1-4-2012	3,75,000
Manufacturing expenses	65,575	Goodwill	1,00,000
Salaries	70,000	Cash in hand	28,750
Bad debts	10,550	Cash at Bank	1,99,500
Director's Fees	31,125	Subscribed and fully paid capital	20,00,000
Debentures interest paid	45,000	Surplus account (Credit balance)	72,500
Preliminary expenses	25,000	6% Debentures	15,00,000
Calls in arrear	37,500	Sundry creditors	2,90,000
Plant and machinery	15,00,000	Bills payable	1,67,500
Premises	16,50,000	Sales	20,75,000
Interim dividend paid	1,87,500	General reserve	1,25,000
Furniture and fixtures	35,000	Sundry debtors	4,36,000

You are required to prepare statement of profit and loss for the year ended 31<sup>st</sup> March, 2013 and Balance sheet as at that date, after making the following adjustments:

Depreciate Plant and machinery by 10%. Provide half year's interest on debentures. Also write off Rs. 2,500 from preliminary expenses and make the provision for bad and doubtful debts Rs. 4,250 on Sundry debtors. Stock on 31 March, 2013 was Rs. 4,55,000. Corporate dividend tax is to be ignored.

SECTION B — ( $4 \times 5 = 20$  marks)

Answer any FOUR of the following.

6. Write any five advantages of accounting.
  7. What is debit note and credit note?
  8. Write about contra entry.
  9. Write about capital reserve and revenue reserve.
  10. Distinguish between call in arrears and calls in advance.
  11. What do you mean by authorised capital?
  12. Give a specimen of profit and loss statement of a company.
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(Supplementary)

(Examination at the end of First Year)

Part II

PRINCIPLES OF MANAGEMENT

(Regulation 2010-11)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Write the objectives of management. Explain the process of management.
2. What is the contribution made by Henry Fayol to the management?
3. Explain the goals and activities of management in business organization.
4. What is role played by top, Middle and lower managers in management?

5. What techniques are helpful in the planning to its organization?
6. How could you say the objectives of business is designed by management planning? Explain.
7. Explain the formal and informal organizations.
8. Write the advantages and disadvantages of organization design.
9. Explain the line and staff positions in management and explain about the conflicts between line and staff.
10. Write the different types of incentives and communication process.

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Part – II

PRINCIPLES OF MANAGEMENT

(Regulation 2013-14)

Time : Three hours

Maximum : 70 marks

SECTION A — (5 × 10 = 50 marks)

Answer the following questions.

1. (a) Explain the functions of management.

Or

- (b) Write about the characteristics of management

2. (a) Discuss role and responsibilities of lower management.

Or

- (b) Explain the functions of HR. Manager.



3. (a) What are the merits and demerits of planning?

Or

- (b) What are the steps involved in decision making?

4. (a) Distinguish between formal and informal organization.

Or

- (b) What are the causes for disputes between line and staff?

5. (a) Explain the various styles of leadership.

Or

- (b) Write the principles of Maslow's hierarchy of needs.

SECTION B — (4 × 5 = 20 marks)

Answer any FOUR of the following.

6. Write F.W. Taylor's principles of scientific management.
7. "Is management science or not".
8. Explain the role of management.
9. What are the characteristics of planning?

10. State the features of organisation.

11. State the problems involved in delegation of authority.

12. Explain motivation and its process.

13. What are the advantages of centralisation?

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B.B.M. DEGREE EXAMINATION,  
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(Supplementary)

(Examination at the end of First Year)

Part II

BEHAVIOURAL SCIENCE

(Regulation 2010-2011)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. What is the importance of behavioural science?
2. How does Mc. Gregor's theory influences nature of the people?
3. Classify groups and explain group formation process.
4. What is personality? What are the major personality attributes influencing behavioural sciences?

5. Explain Maslow's need hierarchy.
6. What is the meaning of learning? What are the main theories of learning?
7. Explain the decision-making theory.
8. Discuss the competition and collaboration among the groups and write brief note conflict change process.
9. What is the use of employee motivation? Discuss the various non-monetary incentives used to motivate the employees.
10. Discuss the differences between perceptions and attitudes.