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**B.Com SEM I**

**21-22**

**Question Papers**

SPES's  
Shri Gopal Gaonkar Memorial  
GOA MULTI-FACULTY COLLEGE  
Dharbandora, Goa



Semester End Examination

Subject: General Management

Class: FY B.Com

Semester: I

Max Marks: 80

Time: 2 Hours

Instructions:

- I. Read the question paper carefully and tally the marks allotted to each question.
- II. In case of any discrepancies or mistakes, kindly bring it to the notice of the invigilator within 10 mins of the commencement of the examination.
- III. Please write your seat number on the top right corner of the question paper before answering the paper.
- IV. Figures written in the parenthesis (Brackets) indicates the corresponding marks for the question.

SECTION A

Q1. Answer any four Questions

(4×4 = 16)

- a. Explain any four advantage of adopting management in an organisation.
- b. Discuss the benefits of effective decision making for an organisation in brief.
- c. What do you mean by "Resistance to Change"? Explain the concept with real world examples.
- d. Write an explanatory note on Green Management
- e. What is the relevance of creativity in decision making? Explain its importance.
- f. Differentiate between Management and Administration.

Q2. Write Short Notes (Any Four):

(4×4 = 16)

- a. American Style of Management
- b. Strategic & Routine Decisions
- c. Inter-personal Conflicts
- d. Eustress & Distress
- e. Functions of Management
- f. Rational Decision Making

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SECTION - B

Q.3

A. Explain the features of Japanese Style of Management with appropriate examples in Detail. (12)

OR

X. Define Management. Briefly state the features of it. (12)

Q4.

A. What do you mean by Decision Making? Explain the process of Decision Making and throw some light on the characteristics of a good decision. (12)

OR

X. Explain the various types of decisions with appropriate examples in brief. (12)

Q5.

A. Explain the process of change as suggested by Kurt Lewin. State the reasons for such organizational change in brief. (12)

OR

X. What do you mean by Organizational Conflicts? Suggest some measures to minimize such conflicts. (12)

Q6.

A. Define Stress. Explain the various organizational & Extra-organizational stressors in brief. (12)

OR

X. Define Logistics Management. Briefly explain the features of it. (12)





1 Semester



SATERI PISANI EDUCATION SOCIETY'S  
Shri. Gopal Gaonkar Memorial  
GOA MULTI-FACULTY COLLEGE  
Dharbandora-Goa

Roll No:  
Total No. of Questions: 04

Total No. of pages: 02

**B.COM Semester End Examination**  
**ENVIRONMENTAL STUDIES**  
Semester I  
**CBCS**

Duration: 01.30Hrs.

Maximum Marks: 40

Instructions:

1. All the questions are compulsory.
2. Figures to the right indicate full marks.
3. Start each new question on a fresh page.

Q.1. Answer any Five of the following.

(5x2=10)

- a. Mention any four impacts of pesticides and chemical fertilizers on environment.
- b. State the causes of deforestation.
- c. What is the importance of environmental studies?
- d. Define food chain with suitable example.
- e. Explain ecological succession with suitable example.
- f. What are endemic species? Give any two examples of endemic plant and animal species.
- g. Define Biodiversity.

Q.2.A. Elaborate on various causes of land degradation

OR

(05)

A. What are the threats to the biodiversity

(05)

B. What is the role of an individual in the conservation of Natural Resources?

(05)

Q.3. A. Explain water cycle with the help of diagram.

OR

(05)

A. Why it is necessary to create public awareness.

(05)

B. Mention the types of biodiversity and add note in Biogeographic zones of India

(05)

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Q.4.A. Write a short note on concept of Structure and function of Ecosystem. (05)

OR

A. Elaborate on the various values of Biodiversity. (05)

B. Write a note on In-situ conservation of forest with reference to field visit (05)

05 DEC 2023

05 DEC 2023

Roll No.:

Total No. of Questions : 4

Total No. of pages : 03

SATERI PISSANI EDUCATION SOCIETY'S

Shri. Gopal Gaonkar Memorial

Goa Multi Faculty College, Dharbandora-Goa

B. Com Semester End Examination

Commercial Arithmetic I (CC-04)

Semester I

CBCS

Duration: 2 hours

Max. Marks: 80

- Instructions: i. Attempt all the questions. Internal choice has been provided for Q1-Q4  
ii. Figures to the right indicate full marks.  
iii. Use of non-scientific calculators is allowed.

Q1. Answer the following:

(4X5=20)

a) If  $A = \begin{bmatrix} 1 & 1 & 2 \\ 4 & 3 & 2 \\ 1 & 3 & 4 \end{bmatrix}$ , find  $|A|$ .

b) Factorise the following quadratic equations using suitable methods.

i.  $3x^2 + 20x + 12 = 0$

ii.  $x^2 - 3x - 15 = 0$

c) Find the 18<sup>th</sup> term of the A.P. 3, 6, 9, 12, ..... Also find the sum of first 18 terms.

d) Let  $X = \{2, 4, 6, 8, 10, 12\}$ ,  $A = \{2, 4\}$ ,  $B = \{10\}$ . Verify the De Morgan's laws for given sets.

OR

e) If  $A = \begin{bmatrix} 2 & 2 \\ 6 & -3 \end{bmatrix}$ ,  $B = \begin{bmatrix} 3 & -7 \\ -1 & -4 \end{bmatrix}$ ,  $C = \begin{bmatrix} 4 & 3 \\ -3 & -1 \end{bmatrix}$ . Evaluate

i.  $AC + AB$

ii.  $A + B$

iii.  $BC - B$

f) Write the conditions of discriminant for nature of roots of a quadratic equation.

g) Consider the sequence 3, 6, 12, 24, ....

i. Identify whether the given sequence is A.P., G.P or H.P.

ii. Find the 20<sup>th</sup> term.

iii. Find the sum of first 13 terms.

h) Let  $X = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ ,  $A = \{1, 2, 4, 5, 7\}$ ,  $B = \{2, 5, 9, 10\}$ . Verify the distributive laws.

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Q2. Answer the following:

(4X5=20)

- Bank A gives interest at 8.5% compounded quarterly. Bank B gives a simple interest of 5% per annum. Calculate which bank is more beneficial to the customer who invests an amount of Rs. 10,000 for 2 years.
- A principal sum of Rs. 800 gives back a total amount of Rs. 920 in 3 years at simple interest.
  - Find the rate of interest per annum.
  - If the interest rate increases by 3%, what will be the total amount?
- Suppose you borrowed Rs. 10,000 from the bank at a 13% rate for 4 years. Find the interest you will pay on this loan. Find the total amount.
- At what rate of compound interest per annum will a sum of Rs. 1200 become Rs. 1348.32 in 2 years?

OR

- Calculate the future value of the ordinary annuity and the present value of an annuity due where cash flow per period amounts to Rs. 5000 and interest rate is charged at 0.05%.
- Dan was getting Rs 200 for 4 years every year at an interest rate of 4%. Find the future value and the present value of this annuity at the end of 4 years.
- Differentiate between simple interest and compound interest.
- Write the formula for simple interest in which time period is given in months and days.

Q3. Answer the following:

(4X5=20)

- Write an example of
  - Arithmetic progression with common difference 5.
  - Geometric progression with common ratio  $\frac{1}{3}$ .
  - Arithmetic progression with negative common difference.
- Construct the truth table for following proposition

$$(\sim p \wedge \sim q) \leftrightarrow \sim(p \vee q)$$

- Solve the following set of equations using Cramer's rule.

$$2x + 5y - 4z = 2$$

$$3x + 7y + 4z = 1$$

$$x - 3y + 5z = 0$$

- In a class of 50 students, 12 are good at painting, 20 are good at singing, 12 students can both sing as well as paint.
  - Find out how many students can neither paint nor sing.
  - Find out how many students either paint or sing.





OR

- e) Draw the truth tables for AND, OR and conditional statement.
- f) Consider the letters R,S,T,U,V,W,X
- In how many ways these 5 letters can be arranged to form a five-letter word?
  - How many 3 letter words can be formed using above letters?
  - How many 4 letter words can be formed using above letters?
- g) Find the sum  $1 + 7 + 13 + 20 + \dots$  up to 20 terms.
- h) Verify whether the given proposition is a tautology.
- $$\sim(p \wedge \sim q) \rightarrow \sim(p \vee q)$$

Q4. Answer the following:

(4X5=20)

- a) Let  $X = \{2,3,4,6,7,8,10,12\}$ ,  $A = \{2,4\}$ ,  $B = \{4,6,7,8\}$ ,  $C = \{3,4,12\}$ . Verify that
- $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
  - $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- b) Veda has 9 yellow balls, 5 pink balls and 4 white balls.
- In how many ways can Veda keep all the flowers in 3 bags?
  - In how many ways can Veda keep yellow and pink roses in 3 bags?
  - In how many ways can Veda keep pink and white roses in 2 bags?
- c) Write the negation of given statements:
- Ram can write with both his hands.
  - Sachin can ride a bicycle.
  - Sana reaches home by 6 p.m.
  - Tony has a house in Ponda.
- d) Find the sum of first 30 even numbers starting from 2.

OR

- e) If the 2<sup>nd</sup> term of an A.P. is 0 and 4<sup>th</sup> term is 2, Find the 34<sup>th</sup> term of the A.P.
- f)  $A = \begin{bmatrix} 1 & 4 \\ 0 & -3 \\ 3 & -2 \end{bmatrix}$ ,  $B = \begin{bmatrix} 1 & 4 & 6 \\ 4 & 5 & 6 \end{bmatrix}$ . Show that  $AB \neq BA$ .
- g) Give one example of logical equivalence and draw the appropriate truth table.
- h) Draw the Venn diagrams for union, intersection and difference of two sets.
- .....



OR

- e) Draw the truth tables for AND, OR and conditional statement.
- f) Consider the letters R,S,T,U,V,W,X
- In how many ways these 5 letters can be arranged to form a five-letter word?
  - How many 3 letter words can be formed using above letters?
  - How many 4 letter words can be formed using above letters?
- g) Find the sum  $1 + 7 + 13 + 20 + \dots$  up to 20 terms.
- h) Verify whether the given proposition is a tautology.  
 $\sim(p \wedge \sim q) \rightarrow \sim(p \vee q)$

Q4. Answer the following:

(4X5=20)

- a) Let  $X = \{2,3,4,6,7,8,10,12\}$ ,  $A = \{2,4\}$ ,  $B = \{4,6,7,8\}$ ,  $C = \{3,4,12\}$ . Verify that
- $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
  - $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- b) Veda has 9 yellow balls, 5 pink balls and 4 white balls.
- In how many ways can Veda keep all the flowers in 3 bags?
  - In how many ways can Veda keep yellow and pink roses in 3 bags?
  - In how many ways can Veda keep pink and white roses in 2 bags?
- c) Write the negation of given statements:
- Ram can write with both his hands.
  - Sachin can ride a bicycle.
  - Sans reaches home by 6 p.m.
  - Tony has a house in Ponda.
- d) Find the sum of first 30 even numbers starting from 2.

OR

- e) If the 2<sup>nd</sup> term of an A.P. is 0 and 4<sup>th</sup> term is 2, Find the 34<sup>th</sup> term of the A.P.
- f)  $A = \begin{bmatrix} 1 & 4 \\ 0 & -3 \\ 3 & -2 \end{bmatrix}$ ,  $B = \begin{bmatrix} 1 & 4 & 6 \\ 4 & 5 & 6 \end{bmatrix}$ . Show that  $AB \neq BA$ .
- g) Give one example of logical equivalence and draw the appropriate truth table.
- h) Draw the Venn diagrams for union, intersection and difference of two sets.
- .....

Roll No:

Total No of Questions: 4

Total No of pages: 4

**B.Com Semester End Examination**  
**COMMERCIAL ARITHMETIC**  
**Semester-I**

Duration: 2 hours

Marks: 80

**Instructions:** (1) Attempt all questions

(2) Figures to the right indicate full marks.

**Q.1 Attempt the following:**

**(5 X 4 = 20)**

- a) Verify using truth table that  $\sim (p \vee q) = (\sim p) \wedge (\sim q)$ .
- b) In what time will, the interest on ₹ 5000 at 9% be equal to the interest on ₹ 3000 for 6 years at 15%, both the interest being the simple interest.
- c) If  ${}^n P_3 : {}^n P_2 = 2:1$ , find n.
- d) Find the sum  $5 + 55 + 555 + \dots$  up to n terms.
- e) If  $A = \begin{bmatrix} 9 & 1 \\ 4 & 3 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & 5 \\ 7 & 12 \end{bmatrix}$ , find the matrix X such that  $3A + 5B + 2X = 0$ .

**OR**

**Q.1 Attempt the following:**

**(5 X 4 = 20)**

- p) Construct the truth table for  $(p \wedge q) \wedge \sim (p \vee q)$ .
- q) A bank offers fixed deposit for 5 years under the following scheme:
- At 15%, if the interest to be calculated half-yearly
  - At 12%, if the interest to be calculated quarterly.
- State which scheme is more beneficial to the public.

- r) A 3 digit number is to be formed using the digits from 0 to 9. How many such numbers can be formed if the repetition of digits in the number is allowed.
- s) If for an A.P.  $t_{10} = 20$ , find  $S_{10}$ .

- t) If  $M = \begin{bmatrix} 3 & -2 \\ 4 & 0 \end{bmatrix}$  and  $N = \begin{bmatrix} 2 & 0 \\ 3 & 1 \end{bmatrix}$ , find the matrix  $3M - 2N + I$ , where I is the identity matrix of order 2.



Q.2 Attempt the following:

(5 X 4 = 20)

- a) Sharad invested in an annuity with half yearly period for 4 years at the rate of interest of 8% to be compounded half yearly. If he received ₹ 27642.88 as the maturity value, what is his periodic payment?
- b) Using Cramer's rule solve the following equations  $3x - 5y = 4$  and  $x + 4y = 2$ .
- c) The universal set  $X = \{x/x \text{ is positive integer less than } 11\}$   
 $A = \{2, 4, 7, 9\}$  and  $B = \{1, 3, 5, 7\}$ . Verify  $(A \cup B)^c = A^c \cap B^c$ .
- d) In a G.P. the fourth and seventh terms are 24 and 81 respectively. Find the first term and common ratio.
- e) If  ${}^{13}C_r = {}^{13}C_{r+2}$ , find the value of  $r$ .

OR

Q.2 Attempt the following:

(5 X 4 = 20)

- p) A person is promised the final amount of a half yearly ordinary annuity with periodic payment of ₹ 1600, the duration of the annuity being 4 years and the rate of interest is 10% to be compounded half-yearly. Find the present value of the annuity.
- q) Using Cramer's rule, solve the following equations.  
 $x + 3y = 13$ ,  $4x - 5y = 1$ .
- r) Use Venn diagram to show that for any sets A and B,  $A \cup B = A \cup (B - A)$ .
- s) The third term of a G.P. is 12 and the sixth term is 96, find its first term and the common ratio.
- t) A committee of 5 members is to be formed out of 6 men and 4 women. In how many ways committee can be formed to have at least 4 men?

Q.3. Attempt the following:

(5 X 4 = 20)

- a) Prove that  $(p \wedge q) \rightarrow (p \vee q)$  is a tautology.
- b) A and B are two subsets of the universal set X such that  $n(X) = 99$ ,  $n(A^c) = 80$ ,  $n(B^c) = 85$  and  $n[(A \cap B)^c] = 94$ , find  $n(A \cup B)$ .
- c) Most of the banks giving interest at 8.75% compounded quarterly, one bank comes up with a new scheme of simple interest at the rate of 10% per annum. Calculate which scheme is more beneficial to the customer, for the investment of 4 years.
- d) If  ${}^nC_r = 120$  and  ${}^nP_r = 720$ , find the value of  $n$  and  $r$ .
- e) Find the 3 terms of an A.P. whose sum is 15 and the product is 80.





OR

Q 3. Attempt the following:

(5 X 4 = 20)

p) Prove that  $(p \wedge q) \wedge \sim (p \vee q)$  is a contradiction.

q) Find  $x$  if  $\begin{vmatrix} x & 1 & 2 \\ 3 & x & 3 \\ 1 & 3 & 2 \end{vmatrix} = 0$

- r) Ketan borrows ₹ 2000 from Sachin at compound interest of 10% per annum, to be compounded on quarterly basis. What amount is due to him after 9 months? Also state his interest.
- s) A club has 5 girls and 7 boys. If 4 persons out of these are to be selected, find the total number of choices if 1) there is no restriction on gender 2) 3 boys and 1 girl is to be selected.
- t) A sum of ₹ 72800 is to be paid in 6 monthly instalments, such that each instalment is three times the previous instalment. Find the first and the last instalment.

Q 4. Attempt the following:

(5 X 4 = 20)

- a) Vishal takes a friendly loan from his friend and promises to pay him regularly a sum of ₹ 800 at the end of each month, for a duration of 1 year. Assuming the rate of interest at 11% compounded monthly, find the amount received by his friend at the end of the year, using the ordinary annuity principle.
- b) How many words can be formed from letters of the word CENTRAL, so that it begins with a consonant and end with a vowel.
- c) Mr. Fernandes invests ₹ 10,000 in the first month and increases his investment by ₹ 1000 in every subsequent month. Calculate his total investment at the end of 2 years.
- d) Find the principal, if the compound interest payable quarterly at 12% per annum for 2 years is ₹ 420.

e) If  $P = \begin{bmatrix} 1 & -2 \\ 2 & 0 \end{bmatrix}$  find the matrix  $P^2 - 3P + I$ .

OR

Q.4 Attempt the following:

(5 X 4 = 20)

- p) A person is promised the final amount of a half yearly ordinary annuity with periodic payment of ₹ 1600, the duration of the annuity being 3 years and the rate of interest is 10% to be compounded half-yearly. Find the present value of the annuity.





- q) From 5 professors and 7 students, a committee of 4 is to be formed. In how many ways this can be done, if the committee contains
- (1) Exactly 3 professors
  - (2) At least 3 professors.
- r) Find the sum of all the numbers between 200 and 400, which are exactly divisible by 3.
- s) Find the sum borrowed by Rahul from a bank on compound interest of 5% per year, to be calculated annually, if he had to pay back ₹ 26,460 after 2 years.
- t) If  $A = \begin{bmatrix} 1 & 2 \\ -2 & 1 \end{bmatrix}$ , find the matrix  $A^2 + 2A$ .

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R.P

Roll No:

Total No of Questions : 4

Total No: of pages: 1

## B.Com Semester End Examination

### ENVIRONMENTAL STUDIES

Semester: I

Duration: 1.30 Hrs.

Maximum Marks: 40

Instructions: 1. All questions are compulsory  
2. Figures to the right indicates marks

- Q.1. Answer any FIVE of the followings (10)
- a. What is the importance of environmental studies?
  - b. Elucidate on the term ecosystem?
  - c. What is endangered species?
  - d. Write down the classification of natural resources?
  - e. Write any two methods of forest conservation.
  - f. Explain the term water wars.
  - g. What are the characteristics of estuarine ecosystem?
- Q2A. Discuss the consequences of mining activities (5)
- OR
- Q2A. Correlate over exploitation of food resource over degradation of environment (5)
- Q2B. Why is it necessary to create public awareness? (5)
- Q3A. Write a note on Conservation of energy resource (5)
- OR
- Q3A. Discuss the different types of Ecological pyramids (5)
- Q3B. Write a short note on biodiversity at global level (5)
- Q4A. Discuss the value of Bio-Diversity (5)
- OR
- Q4A. Write a elaborate note on Forest Ecosystem (5)
- Q4B. Write a short note on Macro-Ecosystem and Micro-ecosystem you have studied during your field visit. (5)



R.P.

Total No. of Questions: 06

Total No. of pages: 03

B.Com Semester End Examination (CBCS)

Financial Accounting

Semester I

Duration: 02 Hrs.

Maximum Marks: 80 Marks

- Instructions:**
- 1) Question No. 1 is Compulsory
  - 2) Q. No. 2 to Q. No. 6 answer any three Question.
  - 3) Figures to the right indicate maximum marks allotted.
  - 4) Provide sufficient margin space in the answer-book for recording marks.
  - 5) Enter the appropriate main & sub-question numbers in the answer-book.

Q1. Giri Raj Enterprises purchases some second-hand machinery on 1<sup>st</sup> April, 2013, for Rs. 3,70,000 and installed at a cost of Rs. 30,000. On 1<sup>st</sup> October, 2014 it purchased another machine for Rs. 1,00,000 and on 1<sup>st</sup> October, 2015, it sold off the first machinery purchased in 2013 for Rs. 2,80,000. On the same date it purchases a machinery for Rs. 2,50,000.

On 1<sup>st</sup> October, 2016 the second machinery purchased for 1<sup>st</sup> October 2014, for Rs. 1,00,000 was sold off Rs. 20,000.

In the beginning, depreciation was provided on the machinery at the rate of 10% p.a. on the original cost each year on 31<sup>st</sup> March. From the year 2014-15, however, the trader changed the method of providing depreciation and adopted the written down value method, the rate of depreciation being 15% p.a.

Give the Machinery Account for the period 2013-2017.

(20 marks)

Q2. Following Balance Sheet of Xavier Ltd. is given on 30<sup>th</sup> June, 2017

Liabilities	Amount	Assets	Amount
Share Capital:		Cash	65,000
1,000 Equity Share of Rs. 100 each	1,00,000	Other Assets	2,05,000
9% Redeemable Preference Share:			
1,000 Shares of Rs. 100 each fully called up	1,00,000		
Less: Calls in Arrears at Rs. 25 per shares	500		
Securities Premium			
General Reserve			
Creditors			
	2,70,000		2,70,000

The directors forfeited the preference shares for non-payment of calls after giving notice to the shareholder and thereafter redeemed the preference shares at a premium of 10%.

For the purpose of redemption, the made a fresh issue of equity shares of Rs. 100 each at a premium of 5%, for such amount as was necessary, after taking into account the utilization of available sources to the maximum extend. All the shares were subscribed and fully paid.

Write Journal Entries for above transactions and prepare Balance Sheet of the Company as it will appear after redemption.

(20 marks)





Q3A. A firm purchased a lease for 3 years for Rs. 30,000 on 1.1.2015. It decided to provide for its replacement by means of an Insurance Policy for Rs. 30,000. The annual premium was Rs. 9,500.

On 1.1.2018, the lease was renewed for a further period of 3 years for Rs. 35,000. You are required to show Machinery Account, Depreciation Fund Account and Insurance Policy Account. (15 marks)

Q3.B. Explain Sinking Fund Method of Depreciation and its 3 benefits. (5 marks)

Q4A. Vidhya Plastic Limited issued 20,000 shares of Rs. 100 each at premium of Rs. 10 per shares. The shares amount was payable as follows:

On Application: Rs. 20.

On Allotment Rs. 40 (including Premium)

On First Call Rs. 25

On Final call Rs. 25

Applications were received for 15,000 shares and all these applicants were allotted shares. The directors made all the calls on shares. The first call money was not received on 1,000 shares and the second call money on 500 shares.

The further directors decided to forfeit the shares on which the first call was not paid. Of the forfeited shares, 500 shares were re-issued as fully paid at Rs. 70.

Give Journal Entries.

(15 marks)

Q4B. Explain different types of share which are issued by a Company. (5 marks)

Q5. The following is a summary of the bank Account of Mr. Deepak Podhar, a trader for the year 2017.

**Bank Account**

Particular	Amount	Particular	Amount
Balance 1.1.2017	5,140	Payment to Trade Creditors	1,87,860
Cash Sales and Receipt from Credit Sales	2,43,720	General expenses	16,970
Balance on 31.12.2017	1,180	Rents and Rates	7,710
		Drawing	37,500
	<b>2,50,040</b>		<b>2,50,040</b>

All business taking had been paid into the bank except Rs. 21,180. Out of which, Mr. Podhar paid wages amounting to Rs. 12,800. He retained Rs. 8,380 for private purposes. The following information is obtained from the books:

Particular	Bal. as on 31.12.2016	Bal. as on 31.12.2017
Stock-in-trade	24,300	31,500
Creditors	19,450	17,090
Debtors	22,400	26,900
Amount owing to a customer who had over paid his account	600	--
Rates paid in advance	420	450
Creditors for General Expenses	810	1,340
Furniture and Fitting	10,000	10,000

Discount received from Trade Creditors during 2017 amounted to Rs. 1,500. No discount were allowed to customers.



The amount due to the customers who over paid his account was set off against sale to J in 2017.

You are requested to prepare Final account, Debtors Account Creditors Account.

(20 marks)

Q6. Following is the Balance sheet of IDIA Ltd.

**Balance Sheet as on 31<sup>st</sup> December 2018**

Liabilities	Amount	Assets	Amount
8,00,000 Equity Shares of Rs. 10 each Rs. 8 paid up	64,00,000	Land and Building	30,00,000
15% Preference Shares of Rs. 100	20,00,000	Plant and Machinery	30,00,000
General Reserve	10,00,000	Furniture	22,00,000
Profit and Loss Account	50,00,000	Investment	15,00,000
Securities Premium	20,00,000	Debtors	47,00,000
Bank Loan	20,00,000	Bills Receivable	10,00,000
Creditors	15,00,000	Bank Balance	40,00,000
Bills payable	15,00,000	Stock	20,00,000
	<b>2,14,00,000</b>		<b>2,14,00,000</b>

The Company decides to buy back the maximum number of Equity Shares as may be permitted at a price of Rs. 20 per share.

Pass Journal Entries and Prepare Balance Sheet under Schedule III

(20 marks)

R.P.

Roll No:

Total No: of Questions: 6

Total No: of pages: 2

**B.Com Semester End Examination**

**General Management**

**Semester: I**

Duration: 2 Hrs.

Maximum Marks: 80

- Instructions**
- 1) All questions are compulsory
  - 2) Figures to the right indicate maximum marks.
  - 3) Start each new question in a fresh page.

Q1. Answer ANY FOUR of the following (16)

- a) Features of management
- a) Objectives of Purchase department
- b) Marketing department
- c) Contingency Approach to management
- d) Features of Japanese Style of management
- e) Scientific approach to management thought

Q2. Answer ANY FOUR of the following (16)

- a) Need for Decision making
- b) Guidelines for effective decision making
- c) Creativity in decision making
- d) Logistics management
- e) Disaster management
- f) Supply chain management

Q.3 A) What is Management? Explain its significance in business (12)

OR

Q.3 B) Distinguish clearly between Administration & Management (12)

Q.4 A) Explain the scientific approach to management thought (12)

OR

Q.4 B) Distinguish between Japanese & American style of management (12)

Q.5 A) What is decision making? Explain the features of Decision making (12)



OR

Q.5 B) State & Explain the steps in decision making process (12)

Q.6 A) What is event management? Explain the steps in event management process (12)

OR

Q.6 B) What is stress? Explain the different types of stress (12)

Roll No:

Total No. of Questions: 06

Total No. of pages: 03

B.Com Semester End Examination (CBCS)

Financial Accounting

Semester I

Duration: 02 Hrs.

Maximum Marks: 80 Marks

- Instructions:**
- 1) Question No. 1 is Compulsory
  - 2) Q. No. 2 to Q. No. 6 answer any three Question.
  - 3) Figures to the right indicate maximum marks allotted.
  - 4) Provide sufficient margin space in the answer-book for recording marks.
  - 5) Enter the appropriate main & sub-question numbers in the answer-book.

Q1. X Ltd. acquired a 5 years Lease for Rs. 40,000. It is decided to provide for the renewal of the lease immediately after 5 years by setting up a depreciation fund. It is expected that investment will fetch interest at the rate of 5% p.a. Sinking Fund Tables show that Re. 0.180975 invested each year will produce Rs. 1 at the end of the 5<sup>th</sup> years at 5% p.a. At the expiry of the lease, the depreciation fund investments are sold for Rs. 31,200 and immediately thereafter the lease is renewed for a further period of 5 years by payment of Rs. 54,000.  
Prepare Lease Account, Depreciation Fund and Depreciation Fund Investment Accounts.  
(20 marks)

Q2A. Ambika Ltd. offered 50,000 Equity Shares of the nominal value of Rs. 100 each for public subscription at Rs. 120.  
The amount is payable were as follows:  
On Application Rs. 20  
On Allotment Rs. 45 (including premium)  
On First Call Rs. 30  
On Second and Final Call Rs. 25  
The actual subscription was only for 40,000 shares. All money payable by shareholder was received except from Miss. Leena who had taken 100 shares but failed to pay the final call. Her shares were forfeited and reissued to Miss Hemalini at Rs. 80.  
Pass Journal Entries.  
(15 marks)

Q2.B. Explain Different types of Capital of a Company.  
(5 marks)

Q3. The following is the Balance Sheet of Paley Bunck Ltd. as at 31<sup>st</sup> December 2017.

Liabilities	Amount	Assets	Amount
<b>Share capital:</b>		Sundry Assets	11,10,000
Authorized 10,000 Equity Shares of Rs. 100 each	10,00,000	Cash at Bank	5,85,000
5,000, 6% Preference Shares of Rs. 100 each	5,00,000		
	15,00,000		
<b>Issued and Subscribed:</b>			
5,000 Equity Shares of Rs. 100 each fully paid up	5,00,000		





5,000, 6% Preference Shares of Rs. 100 each fully paid up	5,00,000		
<b>Reserve and Surplus</b>			
Capital Reserve	1,15,000		
Securities Premium	5,000		
General Reserve	1,35,000		
Dividend Equalization Reserve	75,000		
Profit and Loss Account	2,70,000		
Sundry Creditors	95,000		
	<b>16,95,000</b>		<b>16,95,000</b>

The company decided to redeem the preference shares at a premium of 5%. For the purpose of redemption the company resolved that:

- 1000, 6% Debentures of Rs. 100 each shall be issued at a premium of 5%.
- The profits of the company, shall be applied so far as may be possible, after leaving a balance of Rs. 50,000 in the Profit and Loss account.
- Equity Shares of Rs. 100 each may also be issued, if necessary.

Give the relevant Journal Entries assuming that the redemption was duly carried out. Also prepare Balance Sheet under Schedule III after such redemption. (20 marks)

Q4. Mrs. SuryaDevi does not maintained proper books of accounts. He produces following information.

Receipt	Amount	Payment	Amount
From Debtors (Cash)	30,000	To Creditors (Bank)	12,500
Capital (Bank)	15,000	For Expenses (Cash)	6,000
Loan from Bank	10,000	Salaries (Cash)	9,000
Cash Sales	12,000	Drawing (Cash)	18,000
		Cash Purchases	9,000

Additional Information:

Particular	As on 1.4.2015	As on 31.3.2016
Bank Balance (O/D)	1,000	?
Cash on Hand	800	2,800
Debtors	8,600	6,800
Creditors	3,000	3,600
Stock	6,000	8,400
Plant	20,000	20,000

Adjustment:

- Depreciation on Plant at 20% p.a.

Prepare Bank Account, Creditors Account, Debtors Account and Final Account.

(20 marks)

Q5. On 1<sup>st</sup> April, 2013, new plant was purchased for Rs. 40,000 and further, a sum of Rs. 2,000 was spent on its installation.

On 1<sup>st</sup> October 2015, another plant was acquired for Rs. 25,000.

Due to an accident on 31<sup>st</sup> December, 2015, the first plant was totally destroyed and on 1<sup>st</sup> January 2016 the remnants were sold for Rs.5,000 only.

On 1<sup>st</sup> January, 2017, a second hand plant was purchased for Rs. 30,000 and further, a sum of Rs. 5,000 was spent for bringing the same.



Depreciation has been provided at 10% p.a. on Straight Line method. None of the assets were insured. The account were closed annually on 31<sup>st</sup> March every year.

It is now decided to follow the rate of 15% on Diminishing Balance Method with retrospective effect in respect of the existing items of plant and to make the necessary adjustment entry on 1<sup>st</sup> April 2017.

Prepare Plant Account from 2013 to 2017.

(20 marks)

Q6A. Balance Sheet of Tata Telco Ltd. as on 31.3.2018

Liabilities	Amount	Assets	Amount
Equity Shares of Rs. 10 each	7,00,000	Bank Balance	6,00,000
7.5% Preference Share Capital	3,00,000	Fixed Assets	19,00,000
Profit and Loss Account	2,50,000	Other Current Assets	5,00,000
General Account	1,50,000		
Securities Premium	1,10,000		
Dividend Equalization Reserve	90,000		
11.5% Debentures	4,00,000		
Bank Loan	4,00,000		
Creditors	6,00,000		
	<b>30,00,000</b>		<b>30,00,000</b>

The company decided to buyback maximum no. of Equity Shares at a maximum price. All the legal requirement to be fulfilled.

Pass Journal Entries in the books of the company.

(15 marks)

Q6.B. Distinction between Buy-Back of Equity Shares Vs Redemption of Preference shares.

(Any five points)

(5 marks)



Roll No:

Total No: of Questions: 6

Total No: of pages: 2

## B.Com Semester End Examination

### General Management

#### Semester: I

Duration: 2 Hrs.

Maximum Marks: 80

- Instructions**
- 1) All questions are compulsory
  - 2) Figures to the right indicate maximum marks.
  - 3) Start each new question in a fresh page.

Q1. Answer ANY FOUR of the following (16)

- a) Levels of Management
- b) Nature of Management
- c) Sales department
- d) Systems approach
- e) Human Relations approach
- f) Japanese style of management

Q2. Answer ANY FOUR of the following (16)

- a) Creativity in decision making
- b) Guidelines for effective decision making
- c) Strategic v/s Routine decisions
- d) Logistics management
- e) Disaster Management
- f) Causes of stress

Q.3 A) Define Management? Explain the need for management (12)

OR

Q.3 B) What do you mean by functional areas of management? Explain the different functional areas of management (12)

Q.4 A) Explain the behavioral approach to management thought (12)

OR

Q.4 B) Administrative approach to management thought (12)

Q.5 A) What is decision making? Why it is important in business (12)

OR



Q.5 B) Explain the various steps in decision making process (12)

Q.6 A) What is stress? Explain the measures which can be taken for stress control (12)

OR

Q.6 B) What is event management? Explain the different types of events (12)



Roll No:  
Total No. of Questions: 06

Total No. of pages: 03

**B.Com Semester End Examination**  
**Financial Accounting I**  
**Semester I**

Duration: 02 Hrs.

Maximum Marks: 80 Marks

- Instructions:**
- 1) Question No. 1- Q. No. 6 is compulsory Question.
  - 2) Figures to the right indicate maximum marks allotted.
  - 3) Provide sufficient margin space in the answer-book for recording marks.
  - 4) Enter the appropriate main & sub-question numbers in the answer-book.
  - 5) Working Note is a part of solution.

Q1. The Balance Sheet of RP Ltd. as at 31<sup>st</sup> Dec. 2015 is as follows.

Liabilities	Amount	Assets	Amount
500 Redeemable Preference Shares of Rs.100 each	50,000	Land & Building	1,00,000
9,000 Equity Shares of Rs. 100 each	90,000	Plant & Machinery	30,000
Securities Premium	10,000	Furniture	2,000
General Reserve	20,000	Stock	30,000
Profit and Loss	25,000	Debtors	15,000
Current Liabilities	30,000	Investment	28,000
		Bank	20,000
	<b>2,25,000</b>		<b>2,25,000</b>

The company decided to redeem its preference shares at a premium of 5% on 31<sup>st</sup> January 2016.

A fresh issue of 1,000 equity shares of Rs. 10 each was made at Rs. 12 per share, payable in full on 31<sup>st</sup> January 2016. These were fully subscribed and all money were duly collected. All the investments were sold realizing Rs. 27,000. The Director wish that only a minimum reductions should be made in the revenue reserve.

You are required to give the journal entries, including those relating to cash to record the above transactions and draw up the Balance Sheet as it would appear after redemption of preference share. (20 marks)

Q2. Following is the Balance Sheet of RM Ltd. as on 31/12/2016.

**Balance Sheet of RM Ltd.**  
**as on 31.12.2016**

Liabilities	Amount	Assets	Amount
Share Capital:			
5,00,000 Equity Shares of Rs. 10 each	50,00,000	Fixed Assets	70,00,000
Share Premium	5,00,000	Investment	40,00,000
General Reserve	20,00,000	Current Assets	60,00,000
Profit & Loss Account	25,00,000		



12.5% Debenture (Rs. 100)	40,00,000		
Creditors for Goods	30,00,000		
	<u>1,70,00,000</u>		<u>1,70,00,000</u>
	0		

**Required:**

1. Calculate the maximum number of equity shares that can be bought back.
2. Find out the maximum price it can offer. Buyback is subject to the provisions of company law should be assumed.

Pass Journal entries and Prepare Balance Sheet after Buyback. (20 marks)

- Q3. Ronak Ltd. was registered with an Authorized capital Rs. 20, 00,000 in Equity shares of Rs 10 each and out of that 10,000 of these shares were issued to the public at a premium of 20%. The amount payable was as follows: Rs. 2 on Application; Rs. 4.50 on Allotment (including premium); Rs. 2.50 on First Call; and Rs. 3 on Final Call. Applications were received for 13,000 shares and allotment was made as to applicant of 12,000 shares on pro-rata and to the applicant of 1,000 shares is Nil.

Amount overpaid on application was employed on account of sums due on allotment.

Mr. X holding 200 shares paid the whole of the amount due on first call along with allotment, but failed to pay second call. Mr. Y holding 300 shares failed to pay the two calls.

All these shares were forfeited after the final call. Of the shares forfeited 200 shares of Mr. X and 200 shares of Mr. Y were sold to Mr. Z as fully paid for Rs. 9 per shares.

You are required to pass journal Entries and prepared Cash Book & balance Sheet under schedule III. (20 marks)

- Q4. A Company purchased machinery for Rs. 50,000 on 1.1.2013 and incurred Rs. 10,000 towards freight, insurance, carriage inwards and installation charges. It was estimated that the machinery will have a scrap value Rs. 5,000 at the end of its useful life of 4 years. It was decided to take out an insurance policy to provide necessary funds for the replacement of asset at the end of its useful life. The annual insurance premium for the policy on 1<sup>st</sup> April every year was Rs. 13,000. The scrap value at the end of the 4<sup>th</sup> year realized Rs. 5,200.

Prepare Depreciation fund account, machinery account and Depreciation Insurance Policy Account. (20 marks)

- Q5. The following information is supplied from which you are requested to prepare the Profit & Loss Account for the year ended on 31<sup>st</sup> Dec. 2016 and Balance Sheet as at that date:

Assets and Liabilities	1.1.2016 (Rs.)	31.12.2016 (Rs.)
Sundry Assets	18,000	20,000
Stock	14,000	19,000
Cash in hand	8,200	4,800
Cash at bank	2,200	8,000
Debtors	?	26,000
Creditors	12,000	9,800





Miscellaneous expenses outstanding	1,000	600
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Details of relative to the year's transaction are:

Particular	Amount	Particular	Amount
Receipt in the year from debtors after discount	2,45,000	Salary and wages paid out of bank account	18,000
Returns from Debtors	6,000	Miscellaneous expenses paid by cash account	5,000
Bad debts	1,000	Drawings by cash	9,400
Sale (Cash & Credit)	3,00,000	Purchase pf Sundry assets by cheque	2,000
Returns to Creditors	3,000	Cash withdrawn from bank	21,000
Payments to creditors by cheque	2,36,200	Cash sales deposited in bank	?
Receipt from Debtors deposited into bank	2,43,000	Discount allowed by creditors	4,000
Cash purchases	10,000		

(20 marks)

Q6. Answer the following question. (Any 5)

(4\*5=20 marks)

1. What is Statement of Affairs? How does it differ from Balance Sheet?
2. What are the different kinds of shares which a company can issue as per Companies Act?
3. Discuss the provisions of the Companies Act with regards to redemption of Redeemable Preference Shares.
4. What is Sinking Fund Depreciation and its three advantages?
5. What are the factors to be taken into consideration in selection a depreciation method
6. What do you mean by 'Buy-Back of Shares and Escrow account in the case of by-back of shares.
7. Difference between Right Shares and bonus Shares.



Roll No:

Total No of Questions: 06

Total No of pages: 02

**B.Com Semester End Examination**

**Business Environment I**

Duration: 02 Hrs.

Maximum Marks: 80

**Instructions**

- 1) All questions are compulsory.
- 2) Question 1 and 2 answer any four out of six short notes.
- 3) Question number 3, 4, 5 and 6 answer a or b.

Q. 1) Write short notes on any four of the following: (4 Marks each)

- a) Economic Environment.
- b) National objectives of Business.
- c) Remedy for Migration
- d) Social objectives of Business.
- e) Demographic Environment.
- f) Socio-Cultural Environment

Q. 2) Write short notes on any four of the following: (4 Marks each)

- a) Component of Natural Environment.
- b) Management of Technology.
- c) Features of Technology.
- d) Political Environment with some examples.
- e) Effects of government intervention in business.
- f) Functions of Gram Panchayat.

Q. 3) a) Explain the Characteristics of Modern Business. (12 Marks)

OR

Q. 3) b) Explain the External Environment of Business

Q. 4) a) Explain the impact of Migration on the economy. (12 Marks)

OR

Q. 4) b) Explain the impact of Socio-Cultural factors on Business.



Q. 5) a). Explain the impact of natural environment on business

(12 Marks)

OR

Q. 5) b) Explain Software Technology Parks of India (STPI).

Q. 6) a) Explain the Political factors affecting business.

(12 Marks)

OR

Q. 6) b) Explain the components of Political Environment of India?

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Roll No: \_\_\_\_\_

Total No: of Questions: 06

Total No: of pages: 02

B.Com Semester End Examination

Principles of Insurance (GE-I)

Semester-I

Duration: 02 Hrs.

Maximum Marks: 80 Marks

Instructions:-

- All questions are compulsory, however internal choice is available.  
Answer sub-questions, Question No.1 & Question No. 2 in not more than 100 words each.  
Answer questions, from Question No. 3 to Question No. 6 each in not more than 400 words.  
Figures to the right indicate full marks allotted to each question.  
Start each new question on a fresh page.  
Provide sufficient margin space in the answer book for recording marks  
Enter the appropriate main & sub-question numbers in the answer-book.

Answer the following (ANY FOUR)

(4x4=16 marks)

- Reinsurance
- Benefits of insurance to society ( Any four points)
- Objectives of IRDA ( Any four points)
- Constitution of IRDA
- Types of life insurance policies ( Any four)
- Features of life insurance (Any four points)

Answer the following (ANY FOUR)

(4x4=16marks)

- Objectives of life insurance
- Difference between life insurance & general insurance ( Any four points)
- Need of general insurance business in India
- Public liability insurance
- Types of marine insurance policies (Any four )
- Travel insurance

3X) Explain the various methods of handling risk.

(12 marks)

OR

Y) What is risk? Explain its types

(12 marks)

4 X) Explain in detail the various functions of insurance.

(12 marks)

OR

Y) Explain the various principles of insurance.

(12 marks)

P.T.O....





Q.5X) Explain the content of life insurance policy.

OR

Y) Explain the documentation required for life insurance contract.

Q.6 X) What is fire insurance? Explain the various types of fire insurance policies.

OR

Y) What is motor vehicle insurance? Explain its types

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Roll No:

Total No: of Questions: 4

Total No: of pages: 4

**B.Com Semester End Examination**

Commercial Arithmetic-I

Semester No : 1

Duration: 2 Hrs.

Maximum Marks: 80

Instructions: 1) All Questions are Compulsory.

2) Figures to right indicate marks.

3) Start each new question on a fresh page.

4) Programmable calculators are not allowed.

Q.1 Attempt the following:

(5x4=20)

a) Show that 
$$\begin{vmatrix} a+b+2c & a & b \\ c & b+c+2a & b \\ c & a & c+a+2b \end{vmatrix} = 2(a+b+c)^3.$$

b) If  $A = \{L, O, G, A, R, I, T, H, M\}$   $B = \{T, H, E, O, R, Y\}$   $C = \{T, H, E, O, R, E, M, S\}$

Verify i)  $(B \cup C) \cap (B \cup A) = B \cup (C \cap A)$

c) Find Inverse of matrix A if

$$A = \begin{bmatrix} 1 & 2 \\ 2 & -2 \end{bmatrix}$$

d) i) Find the total number of selections of 4 students out of 7 students.

ii) Find the number of words that can be formed from the word INDIFFERENCE.

OR

Q.1 Attempt the following:

(5x4=20)

w) i) Find x, if 
$$\begin{vmatrix} x & 2 & 1 \\ 3 & 0 & 1 \\ 4 & -5 & 2 \end{vmatrix} = 0$$

ii) Define square matrix.



x) A club has 6 girls and 5 boys. If 4 persons out of these are to be selected,

Find the total number of choices if:

i) There is no restriction on gender,

ii) 3 boys and 1 girl is to be selected.

y) If  $A = \begin{bmatrix} 1 & -4 \\ -2 & 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} -1 & 6 \\ 3 & -2 \end{bmatrix}$ ,  $C = \begin{bmatrix} 4 & -5 \\ 2 & 1 \end{bmatrix}$

Verify that,  $A(BC) = (AB)C$

z) If  $X = \{1, 2, 3, 4, \dots, 10\}$

$$A = \{1, 2, 3, 4\} \quad B = \{2, 4, 6, 8\} \quad \text{and} \quad C = \{3, 4, 5, 6\}$$

Verify i)  $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

ii)  $(A \cap B)' = A' \cup B'$

Q.2 Attempt the following:

(5x4=20)

a) i) Define set with example

ii) What principal will yield Rs. 1200 at 8% per annum in 2 years?

b) For an A.P. with  $T_{10} = 16$ , find  $S_{19}$ .

c) Find whether the following statement is tautology, contradiction or neither

$$(p \wedge q) \vee (\neg p) \vee [p \wedge (\neg q)]$$

d) How many different arrangements can be made of the letters of the word?

COMPUTER, so that it begins with a vowel and end with a consonant?

OR

Q.2 Attempt the following:

(5x4=20)

w) i) There are 9 balls same in size and shape, of these 4 are red in colour, 3 are green and 2 are yellow. How many different signals can be made by arranging these in a line?

ii) Find  $n$ , If  $4({}^n P_4) = n P_5$

x) For an G.P. 1, 3, 9, 27, ..... Find the value of  $T_n$  and  $S_n$  when  $n = 6$ .





y) i) Solve the equation  $x^2 - x - 2 = 0$

ii) Find the interest if principal is Rs. 5000 and amount is Rs. 6200.

z) Construct the truth table for

i)  $p \wedge (q \vee r)$                       ii)  $\sim (\sim p \wedge \sim q)$

Q.3 Attempt the following:

(5x4=20)

a) For an A.P. with the first term as 3 and common difference as 5, then find  $T_n$  and  $S_n$

Also calculate  $T_8$  and  $S_8$

b) Check the validity of following

If I am bored, then I go for a movie

I am not bored

Therefore I did not go for a movie

c) By using the inversion method, solve the equation

$$x + 3y = 1, \quad 2x + 5y = 1$$

d) In how many years, the amount of money will be double the principal at s.i. of 4% per annum?

OR

Q.3 Attempt the following:

(5x4=20)

w) Prove that  $(p \rightarrow q) \vee r \equiv [(p \vee r) \rightarrow (q \vee r)]$

x) If  $A = \begin{bmatrix} 1 & 3 \\ 0 & 3 \end{bmatrix}$  show that  $A^2 - 4A + 3I = 0$ .

y) For  $T_n$  given below, find the first term and common ratio of an G.P. for each case.

i)  $2(6)^{n-1}$       ii)  $3(5)^n$

z) A bank offers fixed deposits for 5 years under the following schemes:

i) At 15%, if interest calculated half yearly

ii) At 12%, if interest calculated quarterly, state which scheme is beneficial to the public.



Q.4 Attempt the following:

a) For an G.P.  $1, \frac{1}{4}, \frac{1}{16}, \frac{1}{64}, \dots$ . Find the value of  $T_n$  and  $S_n$  when  $n = 3$ .

b) Rs 2000 is invested at 6% for following devlation

- i) 1 year                      ii) 6 months                      iii) 4 months

Find the amount in each case.

c) i) In how many different ways one can arrange the letters of the word MATHS?

ii) If  ${}^2n P_3 = 60$  ( ${}^n P_2$ )

d) Find the value of the determinant  $\begin{vmatrix} 13 & 16 & 19 \\ 14 & 17 & 20 \\ 15 & 18 & 21 \end{vmatrix}$

OR

Q.4 Attempt the following:

w) i) Define permutation and combination

ii) Find  ${}^6 C_4$

x) Find the amount is received at principal Rs. 12,000 is invested at 15% per annum for 2 years, if the interest is compounded,

- i) annually                      ii) half yearly                      iii) monthly

y) For an A.P. represented by  $T_n = 7n - 1$ , find  $a$  and  $d$ .

z) Solve the following equations by using Cramer's rule

$$2x + y - z = 1, \quad 3x + 2y + z - 3 = 0, \quad x - y + 4z - 2 = 0$$

Roll No:

Total No: of Questions: 6

Total No: of pages: 1

## B.Com Semester End Examination

### General Management

Semester: I

Duration: 2 Hrs.

Maximum Marks: 80

Instructions: 1) All questions are compulsory.

2) Figures to the right indicate maximum marks.

3) Start each new question in a fresh page.

Q1. Answer ANY FOUR of the following (16)

- Importance of Management
- Scientific purchasing
- Production department
- Contingency Approach to management
- Features of Japanese Style of management
- Behavioral Approach to management thought

Q2. Answer ANY FOUR of the following (16)

- Features of Decision making
- Guidelines for effective decision making
- Rationality in decision making
- Event management
- Disaster management
- Supply chain management

Q3 A) Explain the meaning & Features of management. (12)

OR

Q3 B) Distinguish clearly between Administration & Management (12)

Q4 A) What is scientific management? Explain the principles of scientific management (12)

OR

Q4 B) Distinguish between Japanese & American style of management (12)

Q5 A) Explain the different types of managerial decisions (12)

OR

Q5 B) State & Explain the steps in decision making process (12)

Q6 A) What is event management? Explain the steps in event management process (12)

OR

Q6 B) What is stress? Explain the causes responsible for employee stress (12)





Roll No:

Total No: of Questions: 06

Total No: of pages: 02

B.Com Semester End Examination  
Principles of Insurance  
Semester I

Duration: 02 Hrs.

Maximum Marks: 80 Marks

Instructions:

1. All questions are compulsory, however internal choice is available.
2. Answer sub-questions, Question No.1 & Question No. 2 in not more than 100 words each.
3. Answer questions, from Question No. 3 to Question No. 6 each in not more than 400 words.
4. Figures to the right indicate full marks allotted to each question.

Q.1 Answer the following (ANY FOUR)

(4x4=16)

- a) Distinguish between risk and uncertainty (Any four points)
- b) Objectives of IRDA
- c) Wagering agreement
- d) Importance of insurance
- e) Objectives of life insurance
- f) Pradhan mantri jeevan jyoti yojana 2015

Q.2 Answer the following (ANY FOUR)

(4x4=16)

- a) Rider benefits
- b) Distinguish between life insurance & general insurance (Any four points)
- c) Need of motor insurance policy
- d) Personal accident insurance
- e) Pradhan mantri suraksha bhima yojana 2015.
- f) General insurance business in India



Q.3 X) Explain the various methods of handling risk in insurance.

(12)

OR

Y) What is risk management? Explain its principles.

(12)

P.T.O

**Q.4** X) Explain the various principles of insurance.

**OR**

Y) Explain the benefits of insurance to the society.

**Q.5** X) Explain the contents of life insurance policy.

**OR**

Y) Explain the various types of life insurance policies.

**Q.6** X) What is fire insurance? Explain the different types of fire insurance policies.

**OR**

Y) What is marine insurance contract? Explain the various kinds of marine insurance policies.

**XXX**

Roll No:

Total No of Questions: 06

Total No of pages: 02

## B.Com Semester End Examination

### Micro Economics

Duration: 02 Hrs.

Maximum Marks: 80

#### Instructions

- 1) All questions are compulsory.
- 2) Question 1 and 2 answer any four out of six short notes.
- 3) Question number 3, 4, 5 and 6 answer a or b.

Q. 1) Write short notes on *any four* of the following: (4 Marks each)

- a) Demand function
- b) Increase in demand
- c) Price line
- d) Learning Curve
- e) Determinants of supply
- f) Production Function

Q. 2) Write short notes on any four of the following: (4 Marks each)

- a) Shut down in Perfect Competition
- b) Producers Surplus
- c) 4 features of Monopoly
- d) Advertising in Monopolistic Competition
- e) Price leader
- f) Prisoners Dilemma

Q. 3) a) Explain the Law of demand with its exceptions (12 Marks)

OR

Q. 3) b) What is Indifference curve? Diagrammatically explain the features of Indifference Curve.

Q. 4) a) What are isoquants. Explain its characteristics? (12 Marks)

OR

Q. 4) b) Explain different kinds of Cost concepts





Q. 5) a) Explain the features of Perfect Competition

*(12 Marks)*

OR

Q. 5) b) Explain the short run and Long Run equilibrium under Monopoly to determine price and output.

Q. 6) a) Explain the features of Oligopoly market.

*(12 Marks)*

OR

Q. 6) b) Diagrammatically explain Price-Output Equilibrium under Monopolistic Competition in Short-Run showing profit and losses.

---

Roll No: \_\_\_\_\_

Total No. of Questions: 3

Total No. of pages: 1

B.Com Semester End Examination, October 2017

Environmental studies

Semester: I

Duration: 1 Hours

Max. Marks: 40

---

Instructions: : 1. All questions are compulsory

2. Figures to right indicates marks

3. Start each new question on a fresh page

---

Q.1 A) Explain any four of the following ANY FOUR (4x4=16)

- a. Multi disciplinary nature of EVS
- b. Dynamic nature of resources
- c. Direct use of forest
- d. Conflict over water in society
- e. Concept and structure of ecosystem
- f. Carbon cycle

Q.2. A) In-situ conservation of Bio diversity (12)

OR

X) Mineral resources (12)

Q.3. A) Ex-situ conservation of biodiversity (12)

OR

X) Food resources (12)



Roll No.....

Total No: of Questions: 06

Total No: of pages: 01

**B. Com Repeat Semester End Examination****Managerial Economics - I****Semester No: I**

Duration: 2Hrs

Maximum Marks: 80

- Instructions:* 1) All questions are compulsory  
 2) Figures to the right indicate maximum marks.  
 3) Start each new question in a fresh page.

**Q. 1) Answer any FOUR questions (4 X 4 = 16 Marks)**

- What are the significance Managerial Economics?
- What is opportunity cost?
- Explain risk and uncertainty in business.
- What is Elasticity of supply?
- Explain different types of demand.
- What is market equilibrium?

**Q. 2) Answer any FOUR questions (4 X 4 = 16 Marks)**

- Write in brief on Short Run Production Function.
- What is Diminishing Marginal Productivity?
- What is Returns to Scale?
- What are the Cost concepts in short run.
- What are measures to reduce production cost?
- Explain the economies of scope.

**Q. 3) Answer any ONE questions (1 X 12 =12 Marks)**

- What are the role and responsibility of a managerial economist?  
(or)
- What are the objectives of a firm?

**Q. 4) Answer any ONE questions (1 X 12 =12 Marks)**

- Explain the determinants of demand.  
(or)
- Explain different types of elasticity of demand.

**Q. 5) Answer any ONE questions (1 X 12 =12 Marks)**

- Explain the different factors of production.  
(or)
- Explain the law of Returns to scale.

**Q. 6) Answer any ONE questions (1 X 12 =12 Marks)**

- Explain the determinants of cost function.  
(or)
- Explain the long run cost functions and cost curves.

\*\*\*\*\*





Roll No: .....

Total No: of Questions: 06

**B.Com Semester End Examination**  
**Microeconomics**  
**Semester I**

Duration: 02 Hrs

Maximum Marks: 80

**Q1. Explain any four question**

(4X4=16)

- What are the exceptions to the law of demand.
- Explain consumer's equilibrium with the help of suitable diagram.
- Explain the shift in supply curve.
- What are the properties of isoquants.
- Explain constant returns to scale.
- Explain positive and negative income elasticity of demand.

**Q2. Explain any four question**

(4X4=16)

- Explain the Marginal rate of technical substitution.
- Explain the features of monopoly market.
- Explain the concept of price discrimination.
- Explain kinked demand curve.
- Explain Accounting cost and Economist cost.
- Explain the concept of Monopolistic competition and economic efficiency.

**Q3. Answer any one question.**

(1X12=12)

- Explain the determinants of the demand

OR

- Explain the indifference curve analysis.

**Q4. Answer any one question.**

(1X12=12)

- Explain the Law of supply.

OR

- Explain the difference between long run and short run cost of production.

**Q5. Answer any one question.**

(1X12=12)

- Explain the long run equilibrium under monopolistic competition.

OR

- Explain the law of variable proportion.

**Q6. Answer any one question.**

(1X12=12)

- What are the reasons for economies and diseconomies of scale.

OR

- Explain Cournot's duopoly Model.



23 NOV 2022

Examination

SATERI PISANI EDUCATION SOCIETY'S

Shri. Gopal Gaonkar Memorial  
GOA MULTI-FACULTY COLLEGE

Dharbandora-Goa



Roll No:

Total No. of Questions: 06

Total No. of pages: 03

B.Com Semester End Examination

Financial Accounting I

Semester I

Duration: 02 Hr

Maximum Marks: 80 Marks

- Instructions:**
- 1) Question No. 1 is compulsory Question.
  - 2) Answer any 3 Questions from Q No. 2- Q. No. 6.
  - 3) Figures to the right indicate maximum marks allotted.
  - 4) Provide sufficient margin space in the answer-book for recording marks.
  - 5) Enter the appropriate main & sub-question numbers in the answer-book.
  - 6) Working Note is a part of solution.

Q1. Nitin Ltd. acquires a 5 years lease for ₹ 40,000. It is decided to provide for the renewal of the lease immediately after 5 years by setting up a depreciation fund. It is expected that the investment will fetch interest at the rate of 5% p.a. Sinking fund tables show that ₹ 0.180975 invested each year will produce Re. 1 at the end of 5 years at 5% p.a.  
At the expiry of the lease, the depreciation fund investment is sold for ₹ 31,200 and immediately thereafter the lease is renewed for a further period of 5 years by payment of ₹ 50,000.  
Prepare Lease Account, Sinking Fund Account and Sinking Fund Investment Account.  
Investment should be made to nearest rupee. (20 Marks)

Q2. The Balance Sheet of Pravin Finance Ltd. as on 31<sup>st</sup> March, 2022 was as follows:

Liabilities	₹	Assets	₹
6% Redeemable Preference Shares of ₹ 100 each fully paid	50,000	Fixed Assets	1,32,000
Equity Share of ₹ 10 each fully paid	90,000	Stock	22,000
Capital Reserve	5,000	Debtors	15,000
Securities Reserve	10,000	Investment	36,000
General Reserve	20,000	Bank	20,000
Profit & Loss Account	30,000		
Creditors	20,000		
	<b>2,25,000</b>		<b>2,25,000</b>

The preference share was due for the repayment and the company decided to redeem them at a premium of 5%. For the purpose of redemption, the company made a fresh issue of 1,000 new equity shares of ₹ 10 each, at a premium of ₹ 2 per share, payable in full. These shares were fully subscribed and all cash was received. Then the company sold 75% of the

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investments for ₹ 26,000. The directors wish that only a minimum reduction should be made in the revenue reserve. The redemption was duly made.

Pass journal entries for the above transactions and draw up the Balance Sheet after the redemption of the Preference shares was over. (20 Marks)

Q3.A. Saroj Ltd. Was registered with a capital of ₹ 20,00,000 divided into 20,000 shares of ₹ 100 each. The company offered to the public for subscription 10,000 shares at a premium of ₹ 10 per share payable as follows:

₹ 20 on Application

₹ 40 on Allotment (including premium)

₹ 20 on First call

₹ 30 on Second call

The company received applications for 16,000 shares. The application for 1,000 shares were rejected and application money was refunded. Pro-rata allotment was made to the remaining applicants. Excess application money paid was adjusted against the ₹ due on allotment.

All the calls were made and duly received except Mr. Ramrao who failed to pay first call and second call on 200 shares held by him. His shares were forfeited and reissued to Mr. Govinda at ₹ 80 per share as fully paid.

Pass journal entries in the books of Saroj Ltd.

(15 Marks)

Q3.B. Explain the legal requirement for Buyback of Equity shares.

(05 Marks)

Q4. Mr. Suraj supplies you the following information:

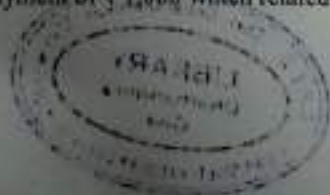
Particular	1.4.2020	31.3.2021
Sundry Debtors	90,000	1,05,000
Stock	75,000	85,000
Sundry Creditors	55,000	60,000
Furniture	20,000	?
Machinery	1,75,000	?

Summary of cash transaction for the year 2020-21:

Receipts	₹	Payments	₹
To opening balance	5,000	By Creditors	1,75,000
To Cash sales	55,000	By Wages	80,000
To Received from Debtors	3,90,000	By Salaries	75,000
To Loan from Somesh @10% p.a. on 1.10.2020	50,000	By Expenses	30,000
		By Drawing	45,000
		By Income Tax	15,000
		By Machinery purchased on 1.10.2020	50,000
		By Closing balance	30,000
	5,00,000		5,00,000

Additional information:

Discount allowed were ₹ 6,000 and discount received ₹ 5,000. Bad Debts written off were ₹ 4,000. Depreciation is to be provided on furniture @5% p.a. and on machinery @ 10% p.a. Expenses include payment of ₹ 1,000 which related to 2021-22. Wages outstanding ₹ 7,500.





Prepare Trading Account, Profit and Loss Account and Balance sheet. Also prepare necessary working accounts. **(20 Marks)**

Q5. The following is the Balance Sheet of M. Suzuki Ltd. as on 31<sup>st</sup> March, 2021

Liabilities	₹	Assets	₹
Equity Share of ₹ 10 each	7,00,000	Plant and Machinery	10,00,000
12.5 % Preference Share Capital	3,00,000	Land and Building	9,00,000
Profit and Loss Account	2,50,000	Stock	1,90,000
General Reserve	1,50,000	Cash in hand	2,00,000
Securities Premium	3,10,000	Cash at bank	4,00,000
Dividend Equalisation Reserve	1,90,000	Investment	3,10,000
10% Debentures	6,00,000		
Bills Payable	5,00,000		
	<b>30,00,000</b>		<b>30,00,000</b>

The company decided to buyback the maximum no. of Equity shares at a maximum price. All the legal requirements to be fulfilled.

Pass journal entries and prepare Balance sheet in the books of M. Suzuki Ltd. **(20 Marks)**

Q6. A company acquired a premises for five years on lease for ₹ 16,000 on 1<sup>st</sup> Jan. 2016 and decided to make provision for its replacement by means of an insurance policy to be taken an annual premium of ₹ 3,000. Show the Premises Account, Depreciation Account and Insurance Policy Account for the five years assuming that the ₹ is realized from the Insurance company. **(20 Marks)**

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Dharbandora -Goa



Semester End Examination, October 2013

Class: FY B.Com  
Semester: I

Max Marks: 80  
Duration: 2 hrs.

Subject: GENERAL MANAGEMENT

- Instructions: 1) All questions are compulsory  
2) Figures to right indicate full marks

Q1) Write short notes on: (any 4) 16 marks

- a) Scientific Management by Taylor
- b) Management as a profession
- c) Japanese style of management
- d) Importance of Management
- e) Decentralization
- f) Management as Science

Q2) Write short notes on: (any 4) 16 marks

- a) Creative decision making
- b) Features of Decision Making
- c) Event management
- d) Individual Vs group decision
- e) "Whatever manager does, he does through decision making" Give Reason
- f) Benefits of rational decision making

Q3 a) what is Management? State the difference between Management and Administration.

OR

Q3 x) Mention and explain in brief fourteen Principles by Fayol 12 marks

Q4 a) Explain features and objectives of Management 12 marks

OR

Q4 x) Explain in brief different methods of scientific management

Q5 a) Explain process of decision making 12 marks

OR

Q5 x) State various Types of decision making (explain any five)

Q6 a) Explain in detail Stress management and Disaster management 12 marks

OR

Q6 x) How to take effective decision

Roll No:

Total No of Questions: 06

Total No of pages: 02

**B.Com Semester End Examination**

**Economics of Resources**

Duration: 02 Hrs.

Maximum Marks: 200

**Instructions**

- 1) All questions are compulsory.
- 2) Question 1 and 2 answer any four out of six short notes.
- 3) Question number 3, 4, 5 and 6 answer a or b.

Q. 1) Write short notes on any four of the following:

*(4 Marks each)*

- a) Causes of X Efficiency
- b) Productive Efficiency
- c) Open access resources
- d) Non Renewable Resources
- e) Resource and Wealth
- f) Human Resource



Q. 2) Write short notes on any four of the following:

*(4 Marks each)*

- a) 4 Points on Remedies of Water Scarcity.
- b) 4 Disadvantages of Water Pricing
- c) Energy and Economic Growth.
- d) Objectives of HRD.
- e) Benefits of Education on Human Resource
- f) Health Insurance

Q. 3) a) Explain the relevance of Environmental Economics for Business *(12 Marks)*

OR

Q. 3) b) What are Carbon Credits? Explain its benefits'.



1307

Q. 4) a) What is Resources? Explain the features of Resources.

(12 Mark s)

OR

Q. 4) b) Explain the Pessimists and Optimist approach of Resource Challenge.

Q. 5) a) Explain the Criticality of Energy as resource.

(12 Marks)

OR

Q. 5) b) Explain the reasons for Water scarcity problem in India.

Q. 6) a) What is HRD? Explain the impact of Education on Human resource. (12 Marks)

OR

Q. 6) b) What are the major Challenges to HRD in India?



SEMESTER I END EXAMINATION, JANUARY 2022 FY  
B.COM SUB: GENERAL MANAGEMENT, CENTER: DHARBANDORA GOA,

\* Required

1. Email \*



2. Seat No.(In words) \*

3. Seat No.(In Figures) \*

4. Date: \*



Example: January 7, 2019

1/31/22, 9:58 AM

SEMESTER I END EXAMINATION, JANUARY 2022 FY B.COM SUB: GENERAL MANAGEMENT, CENTER: DHARBANDORA

## 5. General Instructions

Roll No:

Total No. of Questions: 06

Total No. of pages: 02

**B.Com Semester End Examination, January (2022)**

**CC I; GENERAL MANAGEMENT**

Semester: I

Maximum Marks: 80

Duration: 2 Hrs.

### Instructions:

1. Answer All the Questions.
  2. The marks are indicated at the right side of the corresponding question.
  3. Section I Consists of questions carrying four marks each.
  4. Sec II consists Internal choices
  5. Please read the question paper carefully and in case of any discrepancy, ask to replace it within 15 minutes of the commencement of the examination.
-



## 6. Section 1

SECTION I

1. Answer any four questions.

(4-4-16)

- a. What do you understand by "Management" and "Administration"? Explain in brief.
- b. Explain any two advantages of Green Marketing.
- c. Write an explanatory note on "Rational Decision Making".
- d. Explain any four features of Japanese style of Management.
- e. What are the reasons for inter group conflicts? Explain in brief.
- f. Differentiate between eustress & Distress.

2. Write Short Notes on the following. (Any four)

(4-4-16)

- a. Ringi Decision Making in Japanese style of Management.
- b. Scientific Management
- c. Creative Decision Making
- d. Resistance to Change
- e. Logistics Management
- f. Intrapersonal & Interpersonal Conflicts

## 7. Section 2

SECTION II

3. What do you mean by Management? Explain the features of Management in detail.

OR

Explain the salient features of American Style of Management. Briefly discuss the differentiating points of American style of Management with its Japanese counterpart. (12 Marks)

4. Explain the meaning and Features of Effective Decision Making. Bring out the advantages of taking effective decisions in an organisation (in brief).

OR

Discuss the steps in decision making. What are your suggestions to make a decision making process more effective? Explain. (12 Marks)

5. Throw some light on "Change Process". Explain the various organisational and individual factors responsible for the resistance of change in brief.

OR

Define "Conflict" Is conflict bad all the time? Explain various measure to minimise (or check) conflict in an organisation. (12 Marks)

6. Explain various Individual, Organisational and Extra-organisational causes of stress in brief.

OR

What do you mean by supply chain Management? Explain the importance of having an effective supply chain for an organisation. (12 Marks)

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8. Files submitted:

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1) If  $A = \begin{bmatrix} 1 & 3 \\ 2 & 1 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 1 \\ 3 & 1 \end{bmatrix}$ , find the matrix  $A^2 + 2B$ .

XXXXXXXXXXXXXXXXXXXX

7. UPLOAD YOUR ANSWER PAPERS HERE

Files submitted:

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# F.Y.B.COM. Semester I (CBCS) Examination, January 2022. Subject:-Commercial Arithmetic-I. Center:- Dharbandora

Instructions:-

1. All Question are Compulsory, however an internal choice is available
2. The figure to the right indicates maximum marks allotted to the question.

\* Required

1. Email \*

\_\_\_\_\_



### Candidate Examination Details

2. Exam Seat No. (In figures) \*

\_\_\_\_\_

3. Exam Seat No. (In words) \*

\_\_\_\_\_

Question Paper

Kindly find below the question paper for Commercial Arithmetic-I

Roll No:

Total No of Questions: 4

Total No of pages: 3

## B.Com Semester End Examination

COMMERCIAL ARITHMETIC CAC101

Semester-I

CBCS

Duration: 2 hours

Marks: 80

- Instructions: 1. Attempt all questions  
 2. Figures to the right indicate full marks.  
 3. Use of Non-programmable calculators is allowed.

Q.1 Attempt the following:

(5 x 4 = 20)

- a) Show that  $(p \wedge q) \wedge [\sim (p \vee q)]$  is a contradiction.  
 b) If ₹ 4000 amounts to ₹ 5,200 at S.I. in 3 years, find the rate of interest.  
 c) How many seating arrangements can be made for 7 students on  
 (i) 3 chairs (ii) 7 chairs  
 d) For an A.P. with the first term as 3 and common difference as 5, find its 8th term and  $S_8$ .  
 e) If  $A = \begin{bmatrix} 2 & 1 \\ -1 & 3 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & 5 \\ 7 & 2 \end{bmatrix}$ , find the matrix X such that  $A + 3B + 2X = 0$ .

OR

Q.1 Attempt the following:

(5 x 4 = 20)

- p) Show that  $[(-p) \wedge (\sim q)] \rightarrow (p \rightarrow q)$  is a tautology.  
 q) A certain sum of simple interest becomes ₹ 1200 in 2 years and ₹ 1300 in 3 years. Find the principal and the rate of interest per annum  
 r) 4 boys and 5 girls are made to stand in a line for a dance competition. How many different arrangements can be done so that, no two boys are together?  
 s) If for a G.P. 2, 10, 50, 250,..... find its  $T_n$  and  $S_n$ .  
 t) If  $A = \begin{bmatrix} 3 & -2 \\ 4 & 0 \end{bmatrix}$  and  $B = \begin{bmatrix} 2 & 0 \\ 3 & 1 \end{bmatrix}$  and, find the matrix  $3A - 2B + 4I$ , where I is the identity matrix of order 2.

Q2. Attempt the following:

(5 x 4 = 20)

- a) Find the amount of ordinary annuity with periodic payment as ₹ 2,000 at the rate

5. Page 2

of interest 12% per annum for 2 years if the period of payments is half yearly

- b) Use Cramer's Rule to solve the following equations:

$$4x + 3y - 10 = 0, \quad x + 4y = 2$$

- c) In a group of 400 people, 250 can speak English and 200 can speak Konkani. Using Venn diagram find the number of people speaking both the languages.
- d) The  $n$ th term of a G.P. with  $a = 6$  and  $r = 7$ , is 14406. Find  $n$  and calculate the corresponding  $S_n$ .
- e) An organization consists of 9 members, of which 4 are doctors. A selection of 4 persons is to be done amongst these members. Find how many selections will have
- (i) no doctor                      (ii) Exactly 2 doctors

OR

Q2. Attempt the following:

(5 x 4 = 20)

- p) Rs. 5000 are invested in a term deposit scheme that fetches interest at 6% per annum compounded quarterly. What will be the interest after 1 year?

- q) Using Cramer's rule, solve the following equations.

$$x - 3y = 3, \quad 4x + 5y = 5.$$

- r) Find  $x$  and  $y$  if  $\begin{bmatrix} x+6y & 4 \\ 3 & 6 \end{bmatrix} = \begin{bmatrix} 17 & 4 \\ 3 & 4x+y \end{bmatrix}$ .

- s) The fourth term of a G.P. is 54 and the seventh term is 1458, find its first term and the common ratio.

- t) A committee of 5 members is to be formed out of 6 men and 4 women. In how many ways committee can be formed to have at least 4 men?

Q3. Attempt the following:

(5 x 4 = 20)

- a) Test the validity of the following statement. "The poem is readable if and only if the print is clear. The print is not clear therefore the poem is not readable".
- b) If  $A = \{x/x^2 - 4x - 5 = 0\}$  and  $B = \{x/x^2 - 8x - 9 = 0\}$ . Find  $A \cup B$ ,  $A \cap B$ ,  $A - B$  and  $B - A$ .
- c) Find the amount received when a sum of 5000 is invested at 12% per annum for 3 years, if the interest is compounded half yearly and quarterly.
- d) If  ${}^nC_r = 120$  and  ${}^nP_r = 720$ , find the value of  $n$  and  $r$ .
- e) If the 5<sup>th</sup> terms of the A.P. is 35 and its 9<sup>th</sup> term is 59, find its  $n$ <sup>th</sup> term.

OR

Q3. Attempt the following:

(5 x 4 = 20)

- p) Verify using truth table that  $\sim (p \vee q) = (\sim p) \wedge (\sim q)$ .



q) Find  $x$  if  $\begin{bmatrix} x & 1 & 2 \\ 2 & x & 1 \\ 1 & 3 & 2 \end{bmatrix} = 0$

- r) Find the amount and the compound interest on 15000 for 4 years at 12% calculated on half yearly basis
- s) A group has 6 girls and 4 boys. If 5 persons out of these are to be selected, find the total number of choices if
- there is no restriction on gender
  - 2 boys and 3 girls are to be selected.
- t) A man arranged to pay off his debts of ₹ 42,000 in 20 monthly instalments, which formed an A.P. The first instalment was ₹ 4000. Find by what amount the instalments changed every month.

Q 4. Attempt the following:

(5 x 4 = 20)

- Find the present value of an annuity of 3000, paid at the end of each year for 4 years, at 11% compounded annually.
- How many different arrangements can be formed from letters of the word EQUATION, such that they begin with T and end with a vowel?
- Find the amount of annuity of 3000, payable at the end of each half-yearly for 8 formed years, the interest rate being 14% compounded half yearly.
- Find the principal, if the compound interest payable quarterly at 11% per annum for 3 years is 500.
- If  $A = \begin{bmatrix} 2 & -1 & 1 \\ -2 & 3 & -2 \\ -4 & 4 & -3 \end{bmatrix}$ , show that  $A^2 = A$ .

OR

Q4. Attempt the following:

(5 x 4 = 20)

- Find the present value of an ordinary annuity of 3,500 p.a. for 3 years at 12% per annum.
- From 4 cricketers and 7 footballers, a committee of 4 is to be. In how many ways this can be done, if the committee contains

  - Exactly 3 cricketers
  - At most 3 footballers.

- Find the sum of all the numbers between 100 and 300, which are exactly divisible by 4.
- Find the sum borrowed by Rahul from a bank on compound interest of 5% per year, to be calculated annually, if he had to pay back 26,460 after 2 years.