

B.C.A. – IInd Year

SEM – III & IV

Previous Year

Question Papers

Academic Year:

(2019-20)



Please Note: This set has been prepared based on the papers received to us from the Examination Cell. It may have missing papers on non-availability of the same. This set does not have papers of the March/April for which exam was objective type.



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B.C.A. (Faculty of Commerce) (Part - II) (Semester - III)**Examination, November - 2019****Cost Accounting (Paper - 301)****Sub. Code : 63396****Day and Date : Wednesday, 06 - 11 - 2019****Total Marks : 80****Time : 11.00 a.m. to 02.00 p.m.**

- Instructions :**
- 1) Attempt any four questions from Q. No.1 to Q.No.7
 - 2) Q. No.8 is Compulsory.
 - 3) All Questions carry equal marks.

Q1) Define 'Cost' and 'Costing' and Explain objectives of Cost Accounting. [16]

Q2) Define Cost accounting and Explain advantages and Limitations of Cost Accounting. [16]

Q3) Given below is Profit and Loss Accounting of manufacturing company for the year ending 31st March. [16]

Profit and Loss Account

Particulars	₹	Particulars	₹
To Opening Stock of Raw Materials	10,000	By Sales	4,45,800
To Purchases of Raw Materials	1,50,000	By Closing stock of Raw materials	12,000
Wages	1,24,000		
Power	36,000		
To Establishment Expenses:			
Factory: 8,000			
Office: 15,000	23,000		
To Rent:			
Factory: 2,000			
Office: 3,000	5,000		

P.T.O.



To Advertising	6,000		
To Traveler's Commission	4,000		
To Maintenance of Delivery Van	5,000		
To Rent of Warehouse	2,500		
To Telephone:			
Factory: 300			
Office: 500	800		
To Electric Charges:			
Factory: 200			
Office: 400	600		
To Depreciation of Furniture:			
Factory: 100			
Office: 700	800		
To Depreciation of factory machinery	3,000		
To Interest of Loan	1,000		
To Bad Debts.	600		
To Miscellaneous Expenses:			
Factory: 2,000			
Office: 9,000	11,000		
To Net Profit	74,500		
	4,57,800		4,57,800

The following analysis of office expenditure is given to you:

Office Expenditure	Administration	Selling	Distribution
Office Establishment	50%	40%	10%
Office Telephone	30%	50%	20%
Office Rent	40%	60%	Nil
Office Electric charges	20%	70%	10%
Office Miscellaneous Expenses	65%	20%	15%
Use of office furniture	60%	30%	10%

From the above Profit and Loss Account prepare a statement of Cost and bringing out Figures for Administration, Selling and Distribution separately.

Q4) Explain the Methods of 'Time Keeping' and 'Time Booking'. [16]

Q5) What is mean by overhead cost? Write about Classification, Allocation, Apportionment and Absorption of overheads. [16]

Q6) 'Z' Ltd.; Has purchased and issued the materials in the following orders:[16]

April, 1: Purchased 300 unit @ ₹ 5 per units.

April, 4: Purchased 600 unit @ ₹ 4 per units.

April, 6: Issued 500 units.

April, 10: Purchased 700 unit @ ₹ 5 per units.

April, 15: Issued 800 units.

April, 20: Purchased 300 unit @ ₹ 6 per units.

April, 25: Issued 100 units.



Prepare a store Ledger Accounts on the basis of LIFO method.

Q7) Explain the causes of difference between profits shown by Financial accounts and by Cost accounts. [16]

Q8) Write short Notes (Any four) : [16]

- a) Cost unit.
- b) Overtime.
- c) Elements of cost.
- d) Labour turnover.
- e) Cost Centre.
- f) Contract Costing.





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B.C.A. (Part - II) (Semester - III) Examination, November - 2019

COMMERCE

Human Resource Management

Sub. Code : 63397

Day and Date : Thursday, 07 - 11 - 2019

Total Marks : 80

Time : 11.00 a.m. to 02.00 p.m.

- Instructions :**
- 1) Question No.8 is compulsory.
 - 2) Attempt any four questions from Q.No.1 to Q.No.7.
 - 3) All questions carry equal marks.

- Q1) What is HRM? Explain functions of HRM. [16]**
- Q2) Discuss role of HRM. Explain challenges of HRM in I.T. Industry. [16]**
- Q3) Explain process of HRP in I.T. Industry. [16]**
- Q4) Define the term recruitment & selection. Discuss Sources of recruitment followed in I.T. Industry. [16]**
- Q5) Explain concept of Training & Development. Discuss Training & Development methods followed in industry. [16]**
- Q6) Discuss in detail different administrative practices followed in I.T. industry. [16]**
- Q7) What is mean by Employee Separation. Explain different Employee Separation practices in I.T. industry. [16]**
- Q8) Write short notes (any two) : [16]**
- a) Organization of HR Department.
 - b) HRIS.
 - c) Retrenchment.
 - d) Exit interview.





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**B.C.A. (Commerce) (Part - II) (Semester - III) Examination,
November - 2019
System Analysis and Design (Paper - 303)
Sub. Code : 63398**

Day and Date : Friday, 08 - 11 - 2019

Total Marks : 80

Time : 11.00 a.m. to 02.00 p.m.

- Instructions : 1) Attempt any five questions.
2) Figures to the right indicate full marks.

- Q1) What do you mean by feasibility study? Explain different feasibilities considered before development of system. [16]
- Q2) a) What is report? Explain different types of report. [8]
b) Explain need and importance of software maintenance. [8]
- Q3) a) What is software testing? Explain types of software testing. [8]
b) Write the guidelines for designing data entry screen. [8]
- Q4) a) What is maintenance? Explain different types of maintenance. [8]
b) What is system? Write the characteristics of system. [8]
- Q5) What is Computer based system? Explain different phases of SDLC with various activities involved in each phase. [16]
- Q6) a) Explain Interview and questionnaire techniques in detail. [8]
b) Draw 0th × 1st level DFD for library system. [8]
- Q7) a) What is file? Explain different types of files. [8]
b) Draw ERD for College system. [8]
- Q8) Write short notes on (Any Two) : [16]
a) DFD
b) Input design
c) Sequential access file





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**B.C.A. (Part - II) (Semester - III) (Faculty of Commerce)
Examination, November - 2019**

OBJECT ORIENTED PROGRAMMING WITH C++

Sub. Code : 63399

Day and Date : Monday, 11 - 11 - 2019

Total Marks : 80

Time : 11.00 a.m. to 02.00 p.m.

- Instructions :**
- 1) Each question carries 16 marks.
 - 2) Solve any **FOUR** questions from Q.1 to Q.7.
 - 3) Q.8 is compulsory.

Q1) a) What is Class? Explain with example. [8]

b) Differentiate C and C++ programming languages. [8]

Q2) a) Explain function overloading with suitable example. [8]

b) Write a C++ program to display square and cube of number using inline function. [8]

Q3) What is Constructor? Explain different types of constructors with suitable example. [16]

Q4) a) Explain different iterative statements in C++. [8]

b) What is file? Explain input and output file operations. [8]

Q5) What is Inheritance? Explain different types of inheritance with its syntax and example. [16]

Q6) a) Explain static data member with suitable example. [8]

b) Write a program to swap two numbers using friend function. [8]

Q7) What is polymorphism? Explain runtime polymorphism with suitable example. [16]

P.T.O.

Q8) Write short note on any four:

- a) File opening modes
- b) Switch
- c) Scope resolution operator
- d) Private and public
- e) This pointer
- f) Data abstraction





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B.C.A. (Part - II) (Semester - III) Examination, November - 2019

Computer Oriented Statistical Methods (Paper - 305)

Sub. Code : 63400

Day and Date : Wednesday, 13 - 11 - 2019

Total Marks : 80

Time : 11.00 a.m. to 02.00 p.m.

- Instructions :**
- 1) Question no. 8 is compulsory.
 - 2) Attempt Any Four questions from 1 to 7.
 - 3) Figures to the right indicate full marks.
 - 4) Use of non-programmable calculator is allowed.
 - 5) Graph paper will be supplied on request.

Q1) a) Define Statistics, Explain Scope of statistics. [8]

b) Define mean deviation (M.D) and coefficient of M.D. Obtain M.D. about mean & its relative measures of dispersion from the following data. [8]

31, 35, 29, 63, 55, 72, 37

Q2) a) Define the terms: Population, Sample & sampling. Explain SRSWR and SRSWOR. [8]

b) Define Standard Deviation (S.D) & Coefficient of Variation (C.V). The first of two samples has 100 items with mean 60 and variance 25. If the whole group has 300 items with mean 62 & Standard deviation 5.86 then calculate mean & variance of other group. [8]

Q3) a) Explain any two types of correlation. Find Rank correlation coefficients for the Following data [8]

X	20	11	72	65	43	29	50
Y	60	63	26	35	43	51	37

b) Define Time series and Uses of time series. Calculate 4 yearly moving average method from the following data (Without graph) [8]

Year :	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sales:	13	15	18	16	18	20	22	20	25	22

P.T.O.

- Q4) a) Define Mean and Median. Find mean and median for the following data. [8]

Age (years) : 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100

No. of persons: 16 21 20 28 10 10 3 1 1

- b) The equations, $6Y = 5X + 90$ and $15X = 8Y + 130$ are the lines of regression of Y on X And X on Y respectively. Find [8]

- i) mean values of X and Y
ii) Correlation coefficient



- Q5) a) State the empirical relation between Mean, Mode & Median. Use it to estimate Mode of the distribution whose Mean is 42.68 and Median is 58.92. [8]

- b) Following data represents the number of students admitted for BCA course in a certain college [8]

Classes : BCA-I BCA-II BCA-III

No. of Students : 70 65 45

Draw a Pie-diagram for the above data.

- Q6) a) Define Regression & for the following data, find regression equation of Y on X And estimate the value of Y when $X=50$ [8]

X: 78 36 98 25 75 82 90 62 65 39

Y: 84 51 91 60 68 62 86 58 53 47

- b) Explain Components of Time Series. [8]

- Q7) a) Define absolute & relative measures of dispersion. If Q.D = 15 & its relative measure is 0.484 then find value of first & third quartiles of the data. [8]

- b) Give meaning of Averages. State the requirements of good Average. [8]

Q8) a) State properties of Correlation Coefficients. Find Correlation coefficient from the following data. [8]

Price:	30	34	35	36	37	38	40	42	43	45
Demand:	25	29	30	31	32	33	35	36	37	42

b) Following data gives number of catches taken by A and B in 5 one day matches. [8]

Catches taken by A:	4	5	4	3	5
Catches taken by B:	1	0	4	2	1

Find who is consistent in taking the catches.



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**B.C.A. (Commerce) (Part - II) (Semester - IV) Examination,
November - 2019
ENTREPRENEURSHIP DEVELOPMENT (Paper - 401)
Sub. Code : 63403**

Day and Date : Thursday, 14 - 11 - 2019

Total Marks : 80

Time : 03.00 p.m. to 06.00 p.m.

- Instructions:
- 1) Q.No. 8 is compulsory.
 - 2) Attempt any four from question No. 1-7.
 - 3) Each question carry equal marks.

- Q1) What do you mean by the term Entrepreneur? Explain the qualities of successful Entrepreneur.
- Q2) Define the term 'Entrepreneurship'. Explain different factors stimulating Entrepreneurship.
- Q3) What do you understand by the term EDP? Explain the role, objectives & functions of District Industrial Centre (DIC) and Small Industry Development Bank of India (SIDBI)
- Q4) Define the term project and project life cycle. And explain the classification of project.
- Q5) Prepare a project report for starting in Retail store.
- Q6) Explain the theories of Entrepreneurship in details.
- Q7) Explain different problems and measures in Entrepreneurship Development.
- Q8) Write short notes (any four):
- a) Entrepreneurship in Service Industry.
 - b) Difference between the Entrepreneur and Manager.
 - c) Functions of Entrepreneur.
 - d) Reasons for failure in Project.
 - e) Technical Consultancy Organisations. (TCO's)





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B.C.A. (Faculty of Commerce) (Part - II) (Semester - IV)

Examination, November - 2019

ORGANISATIONAL BEHAVIOUR (Paper - 402)

Sub. Code : 63404

Day and Date : Friday, 15 - 11 - 2019

Total Marks : 80

Time : 03.00 p.m. to 06.00 p.m.

- Instructions :**
- 1) Question No. 8 is Compulsory.
 - 2) Attempt Any Four questions from Questions No. 1 to Question No. 7.
 - 3) All questions carry equal marks.

Q1) Define 'Organisational Behaviour' and explain the disciplines contributing to Organisational Behaviour.

Q2) Explain Abraham Maslow's Need Hierarchy Theory of motivation.

Q3) What is meant by Personality? Explain the theories of personality.

Q4) Explain the nature and types of group.

Q5) What do you mean by Attitude? Explain the components of attitude.

Q6) Explain the conflict management strategies.

Q7) Explain the nature and scope of Organisational Behaviour.

Q8) Write Short Answers (Any Two)

- a) Explain Johari Window.
- b) What are the individual sources of stress?
- c) Explain the determinants of Personality.





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**B.C.A. (Part - II) (Semester - IV) (Faculty of Commerce)
Examination, November - 2019**

DBMS Using MS Access (Paper - 403)

Sub. Code : 63405

Day and Date : Tuesday, 19 - 11 - 2019

Total Marks : 80

Time : 03.00 p.m. to 06.00 p.m.

- Instructions :**
- 1) Each question carries 16 marks.
 - 2) Solve any FOUR questions from Q.1 to Q.7.
 - 3) Q.8 is compulsory.

Q1) a) Draw neat diagram and explain three tier architecture of DBMS. [8]

b) Explain serial and sequential file organization in details. [8]

Q2) a) What are the different types of database system? Explain in detail. [8]

b) Draw an ERD for Library Management System. [8]

Q3) What is DBMS? Explain advantages and disadvantages of DBMS. [16]

Q4) a) Explain DDL commands with its syntax and example. [8]

b) Explain various set operators used in relational algebra. [8]

Q5) What is normalization? Explain 1NF, 2NF & 3NF with example. [16]

Q6) a) What is constraints? Explain primary key and unique key constraint. [8]

b) Explain different features of MS Access. [8]

P.T.O

Q7) Create table Employee with appropriate fields and constraints and perform following queries. [16]

- a) Find out the list of employees whose salary is more than 50000.
- b) List out all the departments by ascending order.
- c) List the name of employees from city Nagpur.
- d) List out all employees having birthday in November.

Q8) Write short note on any four :

[16]

- a) Data Dictionary
- b) Foreign Key
- c) Types of File
- d) Data Abstraction
- e) SQL Data types





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B.C.A. (Part - II) (Semester - IV) Examination, November - 2019

WEB TECHNOLOGY

Sub. Code : 63406

Day and Date : Wednesday, 20 - 11 - 2019

Total Marks : 80

Time : 03.00 p.m. to 06.00 p.m.

- Instructions :**
- 1) Attempt any four questions from Q.1 to Q.7.
 - 2) Question No. 8 is compulsory.
 - 3) Right hand figure shows marks.

- Q1)** a) What is web browser? Explain difference between web browser and web server with example. [8]
b) Explain hyperlink, Image & Image Map tag with example. [8]
- Q2)** a) What is Internet? Explain applications of Internet. [8]
b) What is HTML form? Explain difference between get & post method. [8]
- Q3)** What is CSS? Explain inline, internal & external CSS with example. [16]
- Q4)** a) What do you mean by Control statements? Explain Control statements in JavaScript. [8]
b) What is mean by Event? Explain Event Handler in JavaScript. [8]
- Q5)** a) Define ASP. Explain built in objects in ASP. [8]
b) Explain different dialog boxes in JavaScript. [8]
- Q6)** a) Define Validation. Explain importance of validation with example. [8]
b) Explain steps for developing online shopping website. [8]

P.T.O.

Q7) Design Student feedback form and write ASP script to store feedback into database. [16]

Q8) Write short notes on (Any 2): [16]

- a) Table tag.
- b) Frames.
- c) Cross Browser Testing.
- b) Marquee.



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B.C.A. (Part - II) (Semester - IV) Examination, November - 2019
MATHEMATICS FOUNDATION (Paper - 405)

Sub. Code : 63407

Day and Date : Thursday, 21 - 11 - 2019

Total Marks : 80

Time : 03.00 p.m. to 06.00 p.m.

- Instructions :**
- 1) Questions No. 8 is compulsory.
 - 2) Solve any four questions from Q. No. 1 to Q. No. 7.
 - 3) All questions carry equal marks.
 - 4) Use of non-programmable calculator is allowed.

Q1) a) Define square matrix. Find inverse of matrix. [8]

$$A = \begin{bmatrix} 1 & 2 & -2 \\ 0 & -2 & 1 \\ -1 & 3 & 0 \end{bmatrix}$$

b) Define finite set and infinite set. Give an example of each if $A = \{1, 2, 3, 4\}$, $B = \{3, 4, 5, 6\}$, $C = \{4, 5, 6, 7, 8\}$ and universal set $X = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ then verify the following : [8]

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

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

Q2) a) Define the term Graph. Draw a graph of 2-regular graph on six vertices. [8]

b) Define the term. [8]

i) Tautology

ii) Contradiction

With suitable example of each and state & proof Distributive law.

P.T.O.

Q3) a) Define determinant of order 3rd. Find the value of X if

[8]

$$\begin{vmatrix} x & 3 & 3 \\ 3 & 3 & x \\ 2 & 3 & 3 \end{vmatrix} = 0$$

b) Define Cartesian product. If $A = \{1, 2, 3\}$ & $B = \{2, 4\}$ then,

[8]

Find

i) $A * B$

ii) $B * A$

iii) $(A * B) \cap (B * A)$

Q4) a) If p and q are False & r and s are True statements, Find the truth value of the following statements.

[8]

i) $(p \vee s) \leftrightarrow (q \wedge r)$

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

iii) $p \wedge (r \rightarrow s)$

iv) $\sim(p \wedge \sim r) \vee (\sim q \vee r)$

b) Define lower and upper triangular matrices with example.

[8]

Find X if $A = \begin{bmatrix} 2 & 3 & -1 \\ 4 & 7 & 5 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 3 & 2 \\ 4 & 6 & -1 \end{bmatrix}$, $C = \begin{bmatrix} 1 & -1 & 6 \\ 0 & 2 & -5 \end{bmatrix}$

Such that $3A - 2B + 4X = 5C$.

Q5) a) Explain logical equivalence, and prove the following result.

[8]

$$p \rightarrow q \equiv \sim p \vee q \equiv \sim q \rightarrow \sim p$$

b) Define the term.

[8]

i) Empty set

ii) Singleton set

Give an example of each.





- Q6) a) Define the term.
i) Weighted graph
ii) Fusion of Vertices
Give an example of each.

- b) Define symmetric & skew-symmetric matrices with suitable example. [8]

Show that $(A+B)^2 = A^2 + AB + B^2$ if $A = \begin{bmatrix} 8 & 4 \\ 10 & 5 \end{bmatrix}, B = \begin{bmatrix} 5 & -4 \\ 10 & -8 \end{bmatrix}$

- Q7) a) Define Isomorphism in graph theory and Explain operation on graph, give an example of each. [8]

- b) Define singular and Non-singular matrices with example. [8]

Show that $(AB)^t = B^t A^t$ if $A = \begin{bmatrix} 2 & -4 \\ 3 & -2 \\ 0 & 1 \end{bmatrix}, B = \begin{bmatrix} 1 & -1 & 2 \\ -2 & 1 & 0 \end{bmatrix}$

- Q8) a) Define Adjacent and Incidence matrix of graph. And Draw the graph represented by the given incidence matrix. [8]

$$\begin{matrix} 0 & 0 & 1 & 0 & 1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 \\ 0 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 \\ 2 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \end{matrix}$$

- b) Define the term. [8]

- i) Conjunction
ii) Disjunction

Prepare truth table for the following statement.

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

