### B. Com (Computer Application) II
#### Semester- IV Examination

<table>
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<tr>
<th>Sr. No.</th>
<th>Subjects</th>
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<td>PRACTICAL-II BASED ON THEORY PAPER 5 AND 6</td>
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</table>

- **Note:**
  1. L- Lecture, T- Tutorial, P- Practical, IA- Internal Assessment, ESE-End Semester Examination, E-External Examiner Marks, I-Internal Examiner Marks
  2. Practical Period for the subject Information Technology-04 Periods per week/per batch of 30 students.
B.COM. (COMPUTER APPLICATION) PART TWO
SEMESTER-IV
Paper –I : STATISTICS TECHNIQUE AND BUSINESS
MATHEMATICS -II

Theory: 80 Marks
Internal Assessment:20 Marks

Objectives- To Provide Basic Knowledge and Understanding of important Statistical
Technique.

Periods Allotment

UNIT I
Regression Analysis
Simple Problems on Regression, Mean and Standard Deviation Method, Equation Method
(Including One Equation)

UNIT II
Index Number- Laspeyre”s Method, Paasche”s Method, Dorbish and Bowley Method and
Fisher Ideal Method

UNIT III
Chi-Square Test-

UNIT IV
Business Mathematics-Ratio and Proportion, Simple Interest, Compound Interest

BOOKS RECOMMENDED

1. Statistics- R. S. N. Pillia and V. Bhagavathi, S. Chand and Company
2. Basic of Computer and Statistical Techniques – Dr. Rahul Sawlikar and Dr. S.
3. Fundamental of Statistics- Elhancs D.N.
4. Statistical Analysis- Dr.Rahul Sawlikar, Payal
   Prakashan,Nagpur-ISBN-978-81-922554-3-9
5. Fundamental of Mathematical Statistics – Gupta andKapoor, Sultan Chand and
   Sons Publication ISBN- 8180540049
PAPER-PATTERN OF
B. COM. (COMPUTER APPLICATION) PART TWO
SEMESTER IV
STATISTICSTECHNIQUE AND BUSINESS MATHEMATICS-II

Time = 3.00 Hours
Marks = 80

Que. No. 1 on Unit 1st
a) Theory (8M)
b) Problem (8M)
(OR)
c) Problem (16M)

Que. No. 2 on Unit 2nd
a) Problem (8M)
b) Problem (8M)
(OR)
c) Problem (16M)

Que. No. 3 on Unit 3rd
a) Problem (8M)
b) Problem (8M)
(OR)
c) Problem (16M)

Que. No. 4 on Unit 4th
a) Problem (8M)
b) Problem (8M)
(OR)
c) Problem (8M)
d) Problem (8M)

Que No. 5 Write Short Answers
a) Theory on Unit 1st (4M)
b) Theory on Unit 2nd (4M)
c) Theory on Unit 3rd (4M)
d) Theory on Unit 4th (4M)
B.COM. (COMPUTER APPLICATION) PART TWO
SEMESTER-IV
Paper II : MANAGEMENT ACCOUNTING
Theory: 80 Marks Internal Assessment: 20 Marks
Objectives- To Provide Basic Knowledge and Understanding of important Management Accounting to Business and Industry

Periods Allotment

UNIT I 15

UNIT II 15

UNIT III 15

UNIT IV 15
BOOKS RECOMMENDED

1. Management Accounting – R. S. N. Pillia and V. Bhagavati, S. Chand and Company, New Delhi

2. Cost and Management Accounting - Dr. Rahul Sawlikar, Dr. K.B. Moharir and Dr. Pradip Ghorpade, Rajani Prakashan, Nagpur ISBN-978-93-82683-00-1

3. Cost and Management Accounting- Y.R. Mahajan, Pimplapure Prakashan, Nagpur


5. Cost and Management Accounting (Marathi) Dr. Kishor Moharir, Sunita Moharir, Dr. Pradip Ghorpade, Dr. Vinod Waghale, Das Ganu Prakashan, Nagpur

6. Cost and Management Accounting (Marathi)- Dr. Sudhir Bobhankar, Dr. Megha Kanetkar, Shri. Sainath Prakashan, Nagpur

7. Cost and Management Accounting- Shashi K. Gupta, Kalyani Publisher, New Delhi

8. Management Accounting- Dr. K. L. Gupta, Sahitya Bhawan Publication, Agra

PAPER-PATTERN OF
B. COM. (COMPUTER APPLICATION) PART TWO
SEMESTER IV
MANAGEMENT ACCOUNTING

Time = 3.00 Hours  Marks = 80

Que No. 1 on Unit 1st
a) Theory  (8M)
b) Problem  (8M)

(OR)
c) Problem  (16M)

Que No. 2 on Unit 2nd
a) Problem  (8M)
b) Problem  (8M)

(OR)
c) Problem  (16M)

Que No. 3 on Unit 3rd
a) Problem  (8M)
b) Problem  (8M)

(OR)
c) Problem  (16M)

Que No. 4 on Unit 4th
a) Problem  (8M)
b) Problem  (8M)

(OR)
c) Problem  (16M)

Que No. 5 Write Short Answers
a) Theory on Unit 1st  (4M)
b) Theory on Unit 2nd  (4M)
c) Theory on Unit 3rd  (4M)
d) Theory on Unit 4th  (4M)
UNIT I: Basic Elements of ‘C’ Programming
Introduction to C: C-Character Set and Keyboards, Constants and Variables, Data types, Type Casting, Operators and Expressions: Arithmetic, Relational, Logical Assignment, Bitwise and Increment and Decrement Operator, Input and Output statements in C.

UNIT II: Storage Class and Control Statement
Storage Class: auto, static, extern, static
Conditional Statement: if-else, nested if, else-if ladder, switch, Ternary Operator
Looping Statement: for loop, while and do-while loop, Comma Operator and Use of break, continue and goto statements.

UNIT III: Arrays, Structure
Arrays: Definition, Types of Arrays, Initialization of Single and Two dimension array, Writing and Reading data from an array, Bounce Checking, Searching (Linear and binary), Sorting (bubble, insertion, selection) and Merging of two arrays,
String: String Manipulation using string library functions.

UNIT IV: Structure & Union
Unions: Concept and applications, enum

Books:

References:
1) Dr.S.B.Kishor, Dr.V.Godki, S.Madhavi,”Gateway to C Programming”, Lambert Pub.Germany,ISBN 9783845414744
UNIT – I: Introduction
RDBMS Concept, Introduction to Oracle, SQL Tools, Oracle as Multi-User System, SQL, SQL *Plus, Getting Started with SQL, Writing SQL Commands, Components of SQL, Data Types, Database Users, Database Objects, Elements of SQL

UNIT – II: SQL Languages
Data Definition Language : Creation of Table, Viewing table Structure, Data Integrity through Constraints, Altering Table, Dropping Table, Truncating Table
Data Retrieval: Select Command, SQL Operators, Text Search, Group Queries, Order By Clause
DML Operation: Insert, Update and Delete
Transaction Control Language: Commit, Rollback, SavePoint Data Control Language: Grant, Revoke

UNIT - III: SQL Function and Database Objects
SQL Functions: Character Function, Case Manipulation, Numeric Functions, Date Function, Conversion Function, Conditional Functions, Nested Functions, Group Functions
Database Objects: Views, Sequence, Synonym, Join, Set Operator and Subquery

UNIT - IV: PL/SQL
Basic Elements of Programming, Select..Into Statement, Exception Handling: Predefined Exception, When Other Exception, Cursor: Explicit Cursor, Explicit Cursor Attributes, Subprogram and Packages, Trigger

Books :

References :
UNIT-I: Introduction to Visual Basic
Introduction: Integrated Development Environment (IDE) – Features, Event Driven Programming
Visual Basic Control: Form, Label, Textbox, Frame, Checkbox, Option Button, ListBox, ComboBox, Timer, Scrollbar, Picture, Image, File Controls, Artwork Control

UNIT-II: Programming Constructs and Array
Programming Constructs: Data Types, Variable, Constant, Operator, System Defined Function, Dialog Box and Creating User Interface
Control flow statement: If-Then, Select-Case, For-Next, While Wend, Do-Loop Statement. With..End With, DoEvent Statement

UNIT-III: Array and Procedure
Array: One Dimensional Array, Built-in Array Function, For. Each Loop, Arrays Types Procedure: Types of Procedure, Subroutine, Function, Module
ActiveX Control: Tab Strip, Status Bar, Slider, Month View, DTPicker, Rich Text Box, Common Dialog

UNIT-IV: Menus and Interface
Menus: Menu Editor, Creating Menus, Utility features provided by Menu Editor, Modifying Menu at Run Time, Pop-Up Menu, Creating Toolbar using Image List
Interface: SDI, MDI,

Books:
2) Dr. S.B. Kishor, “Front End Development”, Das Ganu Prakashan.

References:
4) Paul Sheriff,”Teaches Visual Basic 6”,PHI978-8120315624
UNIT-I: E-COMMERCE AND INTRODUCTION TO INTERNET


Introduction to Internet: Internet, Basic Internet Terms, Evolution of Internet, Internet Addressing, Protocols, Internet Protocols, Services of Internet, Search Engine.

UNIT-II: ELECTRONIC DATA INTERCHANGE [EDI]


UNIT-III: INTERNET SECURITY


Introduction to Security Issue: Damage to Data and loss of Data, Unauthorized Use of Data, Environmental Threats, Human Threats.


UNIT-IV: CSS and XML

CSS: Defining style sheets features, adding style to document, Unlink to a single sheet, Embedding style sheet, Using inline style and its properties,

XML: Introduction. XML and SGML, Design goals of XML, Application of XML; XML Software, XML tags, Structure of XML documents, Element markup, Attribute markup,

Namespaces: Qualified name and unqualified names, Namespace scope, default name space, working with formatting

Working with DTD: Introduction, HTML and DTD, Benefits of the DTD, Structure of DTD, and Declarations of variable in DTD, Element name, Occurrence indicators, Connectors.

Books:

References:
1) A program to find simple and compound interest for the rate of interest.
2) A program to find corresponding temperature in Fahrenheit from a given temperature in Celsius.
3) A Program to accept decimal number and display equivalent number in Octal and Hexadecimal.
4) A program to swap the contents of two variables.
5) Program to accept the distance between two cities in Kilometer and print the distance in meter, feet, inches and centimeter.
6) Program to accept the two sides and angle included by these two sides to find area and third side of a Triangle.
7) To check a number is even or odd.
8) A program for testing leap year.
9) A program to find largest among any five number with minimum condition.
10) A program to find roots of Quadratic equation ax2+bx+c.
11) Consider the example where we want to print all the prime number between 10 to 100.
12) Program to print multiplication Table of a number.
13) A program to print number, square and cube of the first 10 natural number.
14) A program to find the factorial of a integer number.
15) A program to generate and print Fibonacci sequences.
16) A program to print first 5 lines of the following pyramid.
   1
   1 2
   1 2 3
   1 2 3 4
   1 2 3 4 5

18) A program to print first n lines of the following Pyramid.

   1
   2 2
   3 3 3
   4 4 4 4
   5 5 5 5 5

19) A program to find the GCD of two Positive integers by successive division.
20) A Program to find the number of Armstrong number between 123 to 425.
21) A program to print truth table from X* Y+Z.
22) A Program to generate a menu driven program using switch statement.

1) Add
2) Edit.
3) Delete.
4) Exit.

23) A Program to find sum of two matrices having size m*n and p*q.

24) A Program to Transport the matrix of size M*N.

25) A Program to delete an element from list of N number.

26) A Program to find sum of each row and column of matrix and also find largest and smallest element in the given matrix.

27) A program to count number of characters including uppercase and lowercase letter, digits, punctuations, space and words that are entered in a given string.

28) A Program to enter the marks of 5 subjects of 3 students and also find the total marks of each student using structure with array.

29) A Program to accept the containing 10 number and pass it to function to print it.

30) A program to evaluation following series.

\[ e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \ldots + \frac{x^n}{n!} \]

31) A program to define and accept the element of structure

1) Empno.
2) Name
3) Basic pay and display the same structure along with DA, CCA and gross salary.

DA and CCA are calculated as follows.

\[ DA = 91\% \text{ of basic salary} \]
\[ CCA = \text{RS 100/- consolidation.} \]
1) Create table DONAR with following fields (Dno, Dname, City, Age, Sex, BG, Quantity, Date).
2) Insert the following records into the table DONAR.

<table>
<thead>
<tr>
<th>Dno</th>
<th>Dname</th>
<th>City</th>
<th>Age</th>
<th>Sex</th>
<th>BG</th>
<th>Quantity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>RAJESH RAO</td>
<td>CHANDRAPUR</td>
<td>28</td>
<td>M</td>
<td>O+ve</td>
<td>100</td>
<td>25-AUG-11</td>
</tr>
<tr>
<td>102</td>
<td>ANAND SHARMA</td>
<td>NAGPUR</td>
<td>20</td>
<td>M</td>
<td>O+ve</td>
<td>200</td>
<td>26-AUG-11</td>
</tr>
<tr>
<td>103</td>
<td>VISHAL DESHPANDE</td>
<td>HYDERABAD</td>
<td>23</td>
<td>M</td>
<td>O-ve</td>
<td>250</td>
<td>26-AUG-11</td>
</tr>
<tr>
<td>104</td>
<td>SHRUTI RAKHUNDE</td>
<td>CHANDRAPUR</td>
<td>22</td>
<td>F</td>
<td>A+ve</td>
<td>100</td>
<td>27-AUG-11</td>
</tr>
<tr>
<td>105</td>
<td>ANUSHREE DHAKATE</td>
<td>-</td>
<td>22</td>
<td>F</td>
<td>A-ve</td>
<td>200</td>
<td>26-AUG-11</td>
</tr>
<tr>
<td>106</td>
<td>VIJETA DHAKATE</td>
<td>BALLARPUR</td>
<td>22</td>
<td>F</td>
<td>O+ve</td>
<td>100</td>
<td>25-AUG-11</td>
</tr>
<tr>
<td>107</td>
<td>AAMIR TAJA</td>
<td>CHANDRAPUR</td>
<td>21</td>
<td>M</td>
<td>O+ve</td>
<td>250</td>
<td>27-AUG-11</td>
</tr>
<tr>
<td>108</td>
<td>AMIR KHAN</td>
<td>DURGAPUR</td>
<td>25</td>
<td>M</td>
<td>O+ve</td>
<td>100</td>
<td>25-AUG-11</td>
</tr>
</tbody>
</table>

3) Perform following queries on above table.
1. Find all donars whose name starts between alphabets ‘A’ to ‘S’.
2. Find all donars who belongs to city CHANDRAPUR.
3. Find all donars who does not belongs to CHANDRAPUR city.
4. Find all donars who belongs to either CHANDRAPUR or NAGPUR city.
5. Find all donars whose city value contains NULL.
6. Arrange all donars in the sorted order whose age is between 18 and 22.
7. Find all male donars.
8. Find all male donars having O+Ve blood group.
9. Find all donars who donated the blood between 25-AUG-10 and 26-AUG-11.
10. Find all donars who donated more than 100 ml of blood.
11. Find all female donars who belong to city CHANDRAPUR having blood group ‘O+Ve’ in the sorted order of city?

12. Display all donars according their age.

13. Display the donar list in recent order of donation date.

14. Display all distinct blood group type.

15. Update the age of all donars by 1.

16. Mr. RAJESH RAO changed his name as RAMESH RAO and he is shifted to DURGAPUR. Note the above changes in the table.

17. Due to certain reason all the donars who donated the blood on date ‘26-AUG-11’ are rejected. Hence delete their information.

18. Find the donars names whose first name starts with letter ‘A’ and ends with ‘D’ irrespective of case letter.

19. Find the donar names whose last name starts between alphabet ‘D’ to ‘S’ (Ex. DESHPANDE, SHARMA)

20. Find total number of donars having O+Ve group.

21. Find total quantity of blood of group A+Ve.

22. Average age of female donar of O+Ve group by rounding the age to next digit.

23. Display all donars who name pronounces like ‘AAMIR’;

24. Find the donars who donated the blood in the month of AUG.

25. Find the donars who donated the blood on 15th Aug. of year.

4) Perform following queries on table donar (Functions)
   • Find the donar names whose first name starts with letter ‘A’ and ends with ‘D’ irrespective of case letter.
     (Ex. ANAND) Hint: Use SUBSTR and INSTR function to extract first name.

   • Find the donar names whose last name starts between alphabet ‘D’ to ‘S’
     (Ex. DESHPANDE, SHARMA)
     Hint: Use SUBSTR and INSTR function to extract first name.

   • Find total number of donars having O+ve group.
   • Find total quantity of blood of group A+ve.
   • Average age of female donar of O+ve group by rounding the age to next digit.
Hint: use Ceil function to round the age to next digit.

- Display all donors who name pronounces like ‘AAMIR’;
- Find the donors who donated the blood in the month of AUG.
- Find the donors who donated the blood on 15\textsuperscript{th} Aug. of year.
- Display all donor names in lowercase.
- Find donors whose first name is five characters long.
- Find every 3\textsuperscript{rd} donor in the list. Donor numbers are assigned as consecutive no.
  Hint: ............ where mod (dno,3) = 0
Practical- II: Based on
a) Front End Development with VB

1. Design a form to accept First, Middle and Last Name and display the full name (Concatenate three text box) on Label when user click on Command Button.

2. Design an application that gives five choices of colors. Design an application to choose any one color using option button and change the ForeColor of TextBox.

3. Write an application to add and remove the name of city from combo box

4. Design a VB screen, to display current time in digital format continuously after every one second and change the background color of form.

5. Build the application, which marquee the caption of Form

6. Build the application, to convert the Fahrenheit temperature selected through scrollbar value into corresponding temperature is Celsius.

7. Build a application that collects marks for five different subjects. Calculate total, If total is >= 500 display message” You are allowed” otherwise display “You are not allowed.”

8. A book stall gives discount on the books as per the following conditions,

<table>
<thead>
<tr>
<th>No. of Books Purchased</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=5</td>
<td>Nil</td>
</tr>
<tr>
<td>&gt;5 and &lt;=10</td>
<td>10%</td>
</tr>
<tr>
<td>&gt;10 and &lt;=15</td>
<td>12%</td>
</tr>
<tr>
<td>&gt; 15</td>
<td>20%</td>
</tr>
</tbody>
</table>

Create a form as follows to calculate the Discount

9. Build the VB application that converts a number entered into the Textbox to Octal, Hexadecimal and Decimal.

10. Build the application, to accept the password within time limit say 8 second otherwise display a message time elapsed.

11. Build the application using timer for personal appointment remainder while working with computer system.

12. Evaluate following sin(x) series

   i. \( \sin(x) = x - x^3/3! + x^5/5! - x^7/7! + x^9/9! - \ldots \ldots \)

13. Build the application, to change the color of Frame using RGB function from the values that are set by 3 Scroll bars.
14. Build a Calculator application to perform basic arithmetic operation

15. Build the application, to accept the temperature of Number of days passed in the current month and determines the highest and average temperature.

16. Demonstrate the working of data bound controls

17. Create a data bound control application to perform various data operation using DAO Control. Assume Database Name and Table Name is Donor having 4 fields Donor_Number, Donor_Name, Date_of_Birth, Donor_Blood and Sex.

18. Create a data bound control application to perform various data operation using ADO Control. Assume Database Name and Table Name is Donor having 4 fields Donor_Number, Donor_Name, Date_of_Birth, Donor_Blood and Sex.

19. Write an application to divide the number by another and it must be able to handle any error that may arise during run time.

b) E-COMMERCE AND XML

1. Write a program to illustrate the simple XML Document.

2. Write a program to show the use of CDATA Section.

3. Write a program to declare the elements in DTD.

4. Write a program to show XML File with an Internal DTD.

5. Write a program to show XML File with an External DTD.

6. Write a program to show XML Document Attached to an External DTD.

7. Write a program to Create XSL Sheet for an XML Document.

8. Write a program to demonstrate the use of XSL Sheet in an XML Document.

9. Write a program to Create web page using XML.