

# **Gondwana University, Gadchiroli**



## **Choice Based Credit System (CBCS) Syllabus of**

### **Master of Computer Management (M.C.M) (Two Years Post Graduate Course)**

# **IT & Application Board**

**2016-2017**

MCM I (Semester I)								
Subject	Paper Code	Paper Name	Total Period /Week	Credit	% of Assessment			
					IA	UE	Total	Min. Passing (40%)
Core	PCMCMT101	Commercial Practice	4	4	20	80	100	40
	PCMCMT102	Information Communication Technology	4	4	20	80	100	40
Discipline Specific Elective (DSE)	PCMCMT103.1	<u>Elective</u> 1. Office Automation 2. Media Management	4	4	20	80	100	40
	PCMCMT103.2							
Skill Enhancement Elective (SEE)	PCMCMT104.1	<u>Elective</u> 1. Programming Technique with 'C' 2.PC-Maintenance	4	4	20	80	100	40
	PCMCMT104.2							
Core Lab*	PCMCMP105	Lab on PCMCMT 102	6	4	50	50	100	40
DSE &SEE based Lab	PCMCMP106	Lab on (PCMCMT103.1 or PCMCMT103.2) & (PCMCMT104.1 or PCMCMT104.2)	6	4	50	50	100	40
Ability Enhancement	PCMCMS107	Seminar	1	1	25	-	25	10
<b>Total</b>			<b>29</b>	<b>25</b>	<b>205</b>	<b>420</b>	<b>625</b>	<b>250</b>

- **Core:** Major theory papers in the concerned subject.
- **Discipline Specific Elective:** These papers will be specialization in the concerned subject.
- **Skill Enhancement course:** Student can choose this paper from any subject.
- From Elective Courses (Either Skill based and Discipline Specific), students need to select one paper form each.
- **IA**(Internal Assessment) :It will be evaluated by Internal Examiner appointed by College in consultation with the University. (Refer Appendix 1)
- **UE**(University Examination): It will be evaluated by External Examiner appointed by University. (Refer Appendix 1 & 3)
- **Period:** Each period is of 48 minutes or as per Government direction from time to time.
- In Paper Code

- 1<sup>st</sup> Letter (P) : Represent it a Post Graduate Course.
  - 2<sup>nd</sup> Letter (C) : Represent it is Commerce Faculty
  - Next 3 Letter (MCM) : Represent the Master of Computer Management)
  - Next Letter (T/P) : T : Represent Theory Paper (Refer Appendix 1)  
P : Represent Practical (Refer Appendix 1 & 2)  
S : Represent Seminar (Refer Appendix 1)
  - Last two letter : Represent Paper No. for Ex. 01 Represent Paper no. 1
- **Lab\*** :
    - 1) Not more than two students should be allowed to do practical on one machine.
    - 2) Wherever possible Practical's should be perform using Open Source Software.

**Note:** Student must appear for University Practical Examination.

**Note :** Direction and scheme of course is available in the website of Gondwana University, Gadchiroli ( [www.gondwana.digitaluniversity.ac](http://www.gondwana.digitaluniversity.ac) )

## MCM I (Semester II)

Subject	Paper Code	Paper Name	Total Period /Week	Credit	% of Assessment			
					IA	UE	Total	Min. Passing (40%)
Core	PCMCMT201	DBMS Concepts	4	4	20	80	100	40
	PCMCMT202	System Analysis and Project Management	4	4	20	80	100	40
Discipline Specific Elective (DSE)	PCMCMT203.1	<u>Elective</u> 1. Operating System and Linux 2. Modern Information System	4	4	20	80	100	40
	PCMCMT203.2							
Skill Enhancement Elective (SEE)	PCMCMT104.1	<u>Elective</u> 1. Computerized Accounting Using Tally 2. Data Structure & File System	4	4	20	80	100	40
	PCMCMT104.2							
Core Lab	PCMCMP205	Lab on PCMCMT201 & PCMCMT202	6	4	50	50	100	40
DSE & SEE based Lab	PCMCMP206	Lab on (PCMCMT203.1 or PCMCMT203.2) & (PCMCMT204.1 or PCMCMT204.2)	6	4	50	50	100	40
Ability Enhancement	PCMCMS207	Seminar	1	1	25	-	25	10
<b>Total</b>			<b>29</b>	<b>25</b>	<b>205</b>	<b>420</b>	<b>625</b>	<b>250</b>

### Pattern of Question Paper

General Rules and Regulations regarding pattern of question paper for the semester end examination is as given below:

1. There will be four units in each paper.
2. Maximum marks of each theory paper will be 80.
3. Question paper will consist of five questions, each of 16 marks.
4. Four questions will be based on four units with internal choice.
5. Fifth question will be compulsory with questions from each of the four units having equal weightage and there will be no internal choice.

<b>Master of Computer Management</b>	
<b>MCM – [ I / II ]</b>	<b>Semester – [ I / II/ III / IV]</b>
<b>Paper Code :</b>	<b>Paper : Name of Paper</b>
<b>Time: 3 Hours ]</b>	<b>[ Max. Marks: 80</b>
<b>Note:</b> 1) All questions are compulsory and carry equal marks. 2) Draw Neat and Labeled diagram and use supporting data wherever necessary. 3) Avoid vague answers and write specific points/answer related to questions.	
<hr style="border-top: 1px dashed black;"/>	
<b>Q1 Either (From Unit 1)</b>	
a)	8
b)	8
<b>Or</b>	
c)	8
d)	8
<b>Q2 Either (From Unit 2)</b>	
a)	8
b)	8
<b>Or</b>	
c)	8
d)	8
<b>Q3 Either (From Unit 3)</b>	
a)	8
b)	8
<b>Or</b>	
c)	8
d)	8
<b>Q4 Either (From Unit 4)</b>	
a)	8
b)	8
<b>Or</b>	
c)	8
d)	8
<b>Q5 Solve all questions</b>	
a) (From Unit 1)	4
b) (From Unit 2)	4
c) (From Unit 3)	4
d) (From Unit 4)	4

**M.C.M. - I**

**(SEMESTER – I)**

**M.C.M - I (SEMESTER – I)**  
**PCMCMT101**  
**Paper – I : COMMERCIAL PRACTICE**

**Credit : 4 ]**

**[Max. Marks: 80**

**UNIT – I : Financial Accounting and Income Tax**

Basic Concepts and Conventions; Accounting Process in double entry accounting System, Journal Entry, Ledger accounts, Trial Balance, Final accounts of individuals & limited Company.

**Income Tax:** Introduction, Basic Concepts, Capital Receipt and Revenue Receipt

**UNIT – II : Cost and Management Accounting**

Cost Accounting: Definition, Scope, Advantages, Limitation

Costing, Types of Costing, Method of Costing, UNIT Costing, Contract Costing, Methods of calculating profit on contract, Meaning & Role of Management Accounting, Ratio Analysis, Working Capital-Meaning, Concepts and Estimation; Break Even Analysis- Nature, Scope Uses and Limitations. Budget and Budgetary Controls- Concepts, Nature, Scope and Importance, Preparation of Flexible Budget & Cash Budget

**UNIT – III : Business Laws**

Indian Contract Act 1872- Offer, Acceptance, Essentials of valid contract.

**Company Laws-** Formation of Company, Memorandum of Association, Articles of association, Prospectus, Shares, Debentures & Other sources of finance, Finance, Company Meeting.

**Partnership Act** – Salient features types of Partners, duties and liabilities of partnership, Dissolution of partnership.

**UNIT – IV : Principles of Management**

Concept of Management: Role and importance, Management- Art, Science & Profession;

Process of decision-making: Controlling, Decision-making, Leadership and Communication.

Functional Areas of Management,- Finance, Marketing HR & Production.

**Books:**

- 1) P.C. Tripathi, “Principal of Management“, TMH, 2007, ISBN 13:978-0-07- 060058-4
- 2) P. N. Reddy,” Principal Of Management”, TMH, 2007, ISBN 10:0-07-060058-9
- 3) Dr. R. K. Sawlikar, “Introduction to Commercial Practice”, Das Ganu, 2012, ISBN-978-93-81660-0304

**References**

- 1) Dr. K. R. Dixit, “Business Management”, Vishawa”,2006, ISBN 81-86454-46-2
- 2) Dr. S.B. Kishor, “Principles of Management”, Das Ganu Prakashan

## M.C.M - I (SEMESTER – I)

### PCMCMT102

#### Paper – II : INFORMATION COMMUNICATION TECHNOLOGY

Credit : 4 ]

[Max. Marks: 80

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#### UNIT – I : Introduction to IT and Computers

Block Diagram of Computer, Functioning of Computer, Generations of Computer, Classification of Computers, Characteristics, Advantages & Limitations of Computer.

**Computer Memory:** Primary & Secondary, Types of Primary Memory, Registers.

**Input devices:** Keyboard Locator Device: Mouse, Joy Stick Digitizing Tablet

**Pick Device:** Light Pen, Touch Screen Track ball Voice Recognition: Microphone, Scanning: MICR, OCR, OMR, Barcode Reader, Vision Capturing: Webcam, Digital Camera Point of Scale, Touch Pad, Smart Card. **Output devices:** VDU, Dot Matrix, Laser and Inkjet Printers

#### UNIT – II : Hardware and Software Concept and Programming Language

Introduction, Types of Software, Characteristics of Good Program, Development of Programming **Languages:** Machine Language, Assembly Language, High Level Language.

**Number System:** Decimal, Binary, Octal, Hexadecimal number systems, features & conversions. BCD, EBCDIC & ASCII codes.

#### UNIT – III : Windows

Features of Windows, GUI, Operating with Windows, Desktop, Taskbar, Windows Explorer, Control Panel, My Computer, My Documents, Recycle Bin

**Windows Accessories:** Calculator, Notepad, Paint, System Information, Disk Management, Disk Defragmentation, Disk Cleanup

#### UNIT – IV : Network & Internet

Computer Communication, Need for Networks, Communication Device, Types of Network-LAN, WAN, MAN, Concept of Network Topology, Types of Topologies and its Advantages and Limitations, OSI Model.

Internet: Basic Internet terms, Internet Addressing, Services provided by Internet, Detail about E-mail, Search Engine, Basic of Intranet.

Open Source Terminologies: Open Source Software, Freeware, Shareware, Proprietary Software

#### Books:

- 1) Peter Nortorn's, "Introduction to Computer", TMH, 2004, ISBN-0-07-05-3142-0
- 2) Pradeep K. Sinha and Priti Sinha "Computer Fundamentals", BPB, 2007, 13:978-81-7656-752-7
- 3) Chetan Shrivastava "Fundamentals of Information Technology", Kalyani publishers, 2002, ISBN-81-7663-576-6
- 4) Dr Madhulika Jain, "Information Technology Concept", BPB, 2006, ISBN – 81-7656-276-9

#### References:

- 1) Sanjay Saxena and Prabhpreet Chopra, "IT Tools and Applications", 2008
- 2) Akshay Kumar, "Information Technology and Info Guide", Authors press, 2000, ISBN-81-7273-040-3



**M.C.M - I (SEMESTER – I)**  
**PCMCMT103.1**  
**ELECTIVE Paper –III: OFFICE AUTOMATION**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Office Automation**

Introduction of Office Automation, Need of Office Automation

**Office Automation Tools:** Computer: E-MAIL, Internet For Business Conferencing, Voice-Mail, Fax Machine, Printer, E-commerce, E-governance.

**UNIT – II : Word Processing**

Introduction to Word Processing, Features of MS-Word, Creating document, Opening Documents, Saving Documents, Protecting Document, Print Preview, Page Setup, Printing Document, Various Utility Option like: Undo, Copy, Paste, Cut, Select, Find, Replace, Goto, Formatting Text With : Font, Paragraph, Alignment, Line Spacing, Working with Table, Spelling and Grammar Check, Mail Merge

**UNIT – III : Working with Spreadsheet**

Introduction To Spreadsheet, Features of Ms-Excel, Basic of MS-Excel, Navigating around the Worksheet, Excel Toolbars and Operations, Formatting Features, Copying Data Between Worksheets, Entering and Editing Cell Entries, Various type of Charts (Column chart, Pie Chart, Line chart, Bar chart), Creation of Charts, Editing and Formatting Charts, Goal Seek. Database in Excel

**UNIT – IV : Presentation Graphics**

Introduction, Features of Ms-Powerpoint, Standard Toolbar, Formatting Toolbar, Drawing Toolbar, Creating Slides, Running Slides, Different types of Layout, Moving the Frame, Inserting Clip Art, Picture, Slide, Copying, Hiding, Slide Transition, Text Styling, Send to Back, Entering Data to Graph, Table, Design Template, Package for CD (Pack & Go Feature).

**Books:**

- 1) K.K. Bajaj, “Office Automation”, MacMillan, ISBN 13: 9780333929278
- 2) Sanjay Saxena, “MS Office 2007 in a Nutshell”, Vikas Publication, 2011, ISBN-978-81-259-5036-3
- 3) Rutkosky, Seguin, Audrey “Microsoft Office 2007”, BPB, ISBN-10:81-8333-228-5/13:978-81-8333-228-6

**References:**

- 1) Dr. S. B. Kishor, “Ms-Office with Office Automation”, Das Ganu, ISBN : 978-93-81660-67-6
- 2) S.Jaiswal, “IT Today Encyclopedia”, Galgotia, ISBN: 9788175152700
- 3) Sanjay Saxena, “A First Course in Computers”, Vikas Publication, ISBN : 9788125914440

**M.C.M - I (SEMESTER – I)**

**PCMCMT103.2**

**ELECTIVE Paper – III : MEDIA MANAGMENT**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Adobe PageMaker:** PageMaker Screen, Entering Text, Viewing the PageMaker Screen, the Keyboard, Tools and Menus. Editing Text, Undoing Changes, Text Blocks, Saving Document on Disk, Printing a Document Existing PageMaker. Preparation of Table of Contents. Page Formatting (Columns) Story Editor, Highlighting in The Editor, Showing Invisible Character, Formatting, Returning To The Layout, Spelling Check, Selective Editing With FIND And REPLACE Commands. Printing of Documents and Printing to Files

**UNIT- II : Basics of CorelDraw**

Introduction-Getting Started-Creating A New File - Title Bar-Menu Bar-Work Area-Printable Page-Property Bar-Page Counter Bar-Color Palette-Toolbox-Status Bar-Drawing Figures-Lines-Ellipse-Circles-Rectangle-Square-Polygon-Saving-Closing-Opening-Views-Normal View-Preview-Wire Frame View-Draft View-Zoom-View Manager-Creating A View. **Toolbox**-Selecting An Object, Resizing An Object, Moving An Object, Changing The Shape, Combining Two Objects. **Text Tool**-Entering Artistic Text, Entering Paragraph Text, Converting Text, Formatting Text (Size, Color).

**UNIT – III : Adobe Photoshop**

Introduction To Adobe Photoshop CS3 , Working With Layers , Making Selections ,Incorporating Color Techniques , Placing Type in An Image ,Using Painting Tools ,Working With Special Layer Functions ,Creating Special Effects With Filters , Enhancing Specific Selections, Adjusting Colors ,Using Clipping Groups, Paths,& Shapes ,Transforming Type ,Liquefying An Image , Performing Image Surgery , Annotating And Automating An Image

**UNIT – IV : Macromedia Flash**

Introduction And How Flash Software Works, Steps To Do A Flash Movie, Basic Functions, Opening And Closing Files, Flash Windows, Window Control, Creating Objects, Drawing in Flash, Drawing Toolbar, Line Tool, Oval Tool, Rectangle Tool. Animation: Elements of Animation, Motion Twinning, Shape Twinning.

**Books:**

- 1) Scott Basham ,”Pagemaker in Easy Steps”, Dream Tech, ISBN : 978-81-7722-0001
- 2) Kogent Learning Solution ,”Corel Draw in Easy Steps”, Dream Tech ISBN : 978-81-7722-960
- 3) Dr.S. B. Kishor, “Media Managment”,Das Ganu Prakashan

**Reference:**

- 1) “Photoshop in Easy Steps”, Kogent Learning Solution, Dream Tech ISBN : 978-93-5004-078-2
- 2) Bonnie Blake ,”Flash in Easy Steps “, Dream Tech ISBN : 81-7722-451-4

**M.C.M - I (SEMESTER – I)**

**PCMCMT104.1**

**ELECTIVE Paper –IV : PROGRAMMING TECHNIQUE WITH ‘C’**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Programming Logic and Basic Elements of ‘C’ Programming**

**Programming Logic:** Problem Analysis, Process Analysis, Conceptual Development of solution. **Development Tools:** Algorithm, Flowchart, **Translator:** Interpreter, Compiler

**Introduction to C:** C-Character Set and Keyboards, Constants and Variables, Data types, Type Casting, Type Modification, 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, Functions**

**Arrays:** Definition, Initialization of array, Writing and Reading data from an array, Bound Checking, Searching. Sorting and Merging of two array,

**String:** String Manipulation using string library functions.

**Structure:** Need of Structure, period operator, Initializing Structure, sizeof(), Arrays of Structure, Nested Structures.

**Unions:** Concept and applications, enum

**Function:** Arithmetic and String Library Function, User defined functions, use of void, Recursion.

**UNIT – IV : Pointer and File Concept**

**Pointer:** Declaring and Initializing pointer variable, Pointer Operator, Call by value and Call by Reference

**Dynamic Memory Management Functions:** malloc ( ), calloc(), realloc(), free()

**Files:** Concept of file, Operation on Files, Defining, Opening and closing files, Modes of Files, file handling function, Command Line Argument.

**Books:**

- 1) E. Balguruswami, “Programming in ANSI C”, TMH, 2009, ISBN-978-0-07-064822-7/0-07-064822-0
- 2) K.R. Venugopal and S.R. Prasad, “Mastering C”, TMH, 2008, ISBN-13:978-0-07-061667-7 / 10: 0-07-06-1667-1.

**References:**

- 1) V RAJARAMAN, “COMPUTER PROGRAMMING IN C” ,PHI, 2002, ISBN-81-203-0859
- 2) Stephen G. Kochan, “ Programming in C”, CBS, ISBN-13: 9780321566157

**M.C.M - I (SEMESTER – I)**  
**PCMCMT104.2**  
**ELECTIVE Paper –IV : PC-MAINTENANCE**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT - I : Preventive Maintenance**

Introduction, Need, Tools, Materials. Procedures: Active Hardware Maintenance, Active Software Maintenance, Passive Maintenance Procedure, Heat and Temperature Control, Dust and Pollution Control, Ventilation Control, EMI Electrostatic Discharge Control, Humidity and Corrosion Control, Shock and Vibration Control.

Preventive Maintenance Schedule. BIOS and CMOS, Working with the BIOS Setup Program.

**UNIT – II : CPU and Monitor**

History and Study of Different Types of CPUs, Terminology Used with CPU, Data Processing Inside CPU, RAM & ROM, Different Types of ROM, Virtual Memory, Installing and Removing Memory.

Video Cards and Monitors, Display Resolution, Feature, Video Driver, CTs Working, LCDs Working, Monitor Resolution, Interfacing, Refresh Rate, Monitor Driver, Adjusting Display Settings in Windows.

**UNIT – III : Study of Drives**

Study of Different Types of Drives, Hard Drive Interfaces- IDE, SCSI, SATA Hard Drive Performance, Installing Hard Drives, Partitioning, Disk Formatting, Common Hard Drive Problems.

Installation of Operating System and Software: Installing Video Card, Testing, plug in the Video Card, Providing Power to Motherboard, Testing. Installing the CD ROM Drive, Installing Keyboard and Mouse, Installing Sound Card, Installing Modem, Installing the Motherboard, Installing the Power Supply, Attaching Add-on Cards, Installing the Drives Testing, Parallel and Serial Port Connection, Front Panel Indicators and Speakers.

**UNIT – IV : Formatting and Trouble Shooting**

**Formatting:** Formatting PC, Backup of Data Before Formatting, System Restore, Precautions for Formatting, Role of Technician.

**Trouble Shooting:** Introduction, Types of PC Faults: Solid Faults, Intermittent Faults, Developing Strategy. Diagnostic and Repair Tools – Diagnostic Software Tools, Diagnostic Hardware Tools, Advanced Testing Tools, Hand Tools for Service Engineers, Disassembling PC, Troubleshooting Display Problems, Memory Troubleshooting, Power Supply Testing and Problems Troubleshooting. Cleaning and Trouble Shooting of Keyboards, Mouse, Front Panel Indicators and Speakers Troubleshooting.

**Books:**

- 1) Fundamentals of Computers – Raja Raman, PHI ISBN 81-203-2581-8
- 2) Basics of Computer Hardware –BPB Publication

**References:**

- 1) Troubleshooting Your PC's for Dummies 3<sup>rd</sup> Edition – Dan Gooin, Willey Publishing Inc. ISBN: 9780470230770

**M.C.M - I (SEMESTER – I)**

**Practical**

**PCMCMP105**

**Lab Based on PCMCMP102 & PCMCMP103.1**

**Credit : 4 ]**

**[Max. Marks: 100**

**Practical based on IT, Office Automation**

**A) Information Technology**

1. Study of various input devices with troubleshooting.
2. Study of various output devices.
3. Study of booting process.
4. To study assembling and de assembling the PC.
5. To study and installation of antivirus software
6. Procedure to clean up Disk, Disk fragmentation
7. To study and installation of antivirus software
8. Procedure to cleanup Disk, Disk fragmentation

**B) LibreOffice Writer/Ms-Word**

1. a) Type the Content Heading and then set the Index option using Tab setting. Finally take a print out.

**CONTENTS**

<b>Chapter</b>	<b>Page No.</b>
Windows .....	1
Ms-Word .....	18
Ms-Excel .....	27
Power-Point.....	98
Ms-Access.....	131

[Chapter names at 1” with left alignment while Page number at 4.5” with right alignment and with leader .....]

- b) Draw a Block diagram of computer system using auto-shapes, and name them using textbox and join each parts using line-style. At the end give the page border to it. Finally take a print out.

- c) Type the following set of equation. Finally take a printout.

1.  $B^2 - 4AC = 0$

2.  $H_2SO_4$

3. If  $(A^2 \geq 0)$

4.  $f(x) = \sum_{i=1}^{i=5} 5 * X^i$

5.  $k^2 - 4 = 0$ , if  $b_0 \neq 0$

6.  $e^{i\theta} + e^{-i\theta} = 2\cos\theta$

2. Type the following letter and take printout

**ABC**  
SAI Nagar  
Mumbai  
☎020-1111111

Dear Sir,

Kindly provide the **rate** of following set of peripherals,

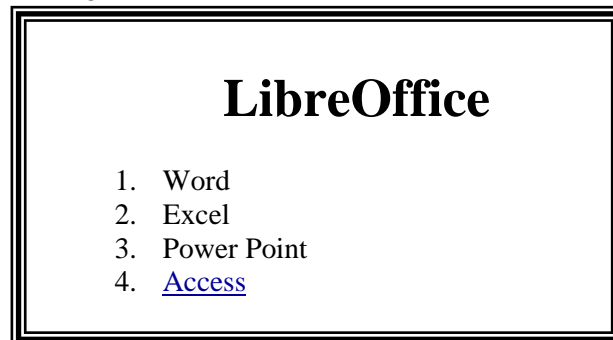
- Computer 🖨 with following configuration
  - Intel® Pentium® Processor T4400 ( 2.2 Ghz, 1MB L2 Cache, 800 MHz FSB)
  - 250 GB HDD, DVD RW, 35.56cms (14) CSV LED Backlit, 1GB DDR3 RAM
- Floppy disk 🖨 of 1.44 MB of 12 Box
  - Sony
  - Verbatim
- 3-Button mouse 🖨 of following 5 each
  - a) i-ball
  - b) Logitech

Thanking you,

Date : < Insert System Date >

Your  
**XYZ**

3. Type the following



- a) **Ms-Word:** MS-Word is the application software and one of the most powerful word processor in Windows operating system. It is used for formatting of letters or the text. In simple meaning it is a word processor having various functions for text you may insert different objects like pictures, sound and video or calendar in word file.
- b) **Ms-Excel:** Ms-Excel is a powerful spreadsheet or worksheet application that can use for managing, analyzing and presenting data in tabular format. It also helps to display data in graphical format using charts.
- c) **Ms-Power Point:** Ms-Powerpoint is a powerful tool to create professional looking presentation and slide shows.
- d) **Ms-Access:** Ms-Access is a powerful program to create and manage database.


**Perform the following operation,**

- i. When user presses on Access it should jump to Access Paragraph within page.
- ii. Similarly create a hyperlink for other option within a page.
- iii. Print it.

4. Define and write the characteristic of computer and perform following operation,
- Divide the text in two columns
  - Insert the picture of computer in the background in each column.
  - Insert header with your name
  - In footer write name of your college
  - Give proper heading for phrase.
  - Use Drop Cap for 1<sup>st</sup> letter of each paragraph
  - Define line spacing 1.5 with left margin 1.25” and right margin 0.75”
  - Font : Courier New, Font size for heading 14 and for normal text 11
  - Finally take a print out.
5. Type the following letter exactly as given below,  
Before start of typing, set up page in the following format

- Page Size : A4 with Landscape Orientation
- Left Margin: 2” Right Margin: 1” Top Margin: 0.5”

Computer Stream after 12<sup>th</sup>



COMPUTER

- **Science Stream**
  - B.Sc. (Computer Science)
  - B.Sc. (IT)
  - BCA
  - B.E. (Computer Science)
  - B.E. (Information Technology)
- **Commerce Stream**
  - BCCA
  - B.Com (Information Technology)

[If Computer Picture is not loaded on your computer then simply select one of the pictures loaded in clip-art]

6. Write a letter to publisher for supplying the list of books along with book details. For ex.
- To,  
 Publisher,  
 Das Ganu Prakasan,  
 Nagpur.
- R/Sir,  
 Supply following title of books at the earliest.

Sr.No.	Title	Author	No. of Copies
1	Information System	S.Kishor	10
2	Information Technology	S. Kishor	15
3	Principle of Business Management	S. Kishor	12
4	Financial Accounting	Dr. Kishor Mohrir	13

Thanking you,

Date: < Insert System Date >

Yours

Principal  
(Dr. WWW)

Perform Following option

- 1) Take a printout
- 2) Assume Librarian forget to enter one of the entry of book so, kindly add it between number 3 and 4 say,

4 Business Economics Gurbir Kaur Khalsa 10

- 3) Replace author name S. Kishor by S.B. Kishor at once.
- 4) Finally print the copy of this document with following settings,
  - Left Margin = 1.75"
  - Right Margin = 1"
  - Top Margin = 1.5"
  - Bottom Margin = 1"

7. Using Mail-Merge write a letter to all selected candidate for their final admission on specific date say (30-June) at XYZ Institute, with necessary documents at 10 AM.

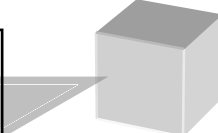
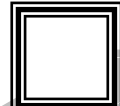
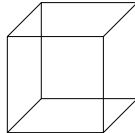
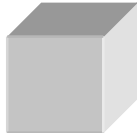
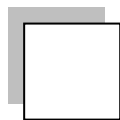
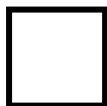
Name should be highlighted while course and date of commencing class should be underlined

8. Create a document and while saving give a security to open the saved document. Take a screen shot while opening it.

9. Draw the following shape using rectangle option found in Drawing Toolbar



And generate following types of box by copying and formatting above box



### C) LibreOffice Calc/MS-Excel

- 1) Prepare following table in a worksheet using MS-Excel.

Name	Basic	DA	HRA	Gross Pay	PF	Net Pay
Rahul	10000					
Sachin	20000					
Nilesh	15000					
Bharti	25000					

Perform following operations:-

1. Complete the table using formulas
  - $DA = \text{Basic} * 27 \%$
  - $Hra = \text{Basic} * 10 \%$
  - $PF = \text{Basic} * 12.5 \%$
  - $Gross Pay = \text{Basic} + DA + HRA$



- Net Pay = Gross Pay – PF
- 2. Give the Proper Heading.
- 3. Take the printout in landscape orientation

2) Enter following data in MS-Excel worksheet.

Name	Date of joining	Salary	Designation
Rahul	Jan-05	10000	Peon
Sachin	Oct-10	20000	Accountant
Nilesh	Jan-05	15000	Clerk
Bharti	Dec-09	25000	Manager

Perform following operations:-

1. Copy the above data and place in sheet2 and sort the table in the ascending order or date of joining and give proper heading.
2. Copy the above data and place in sheet3 and sort the table in the ascending order or date of joining followed by order of name and give proper heading.
3. Copy all the above data to sheet4 and take printout

3) Prepare following using MS-Excel.

Players	Match 1	Match 2	Match 3	Average	Highest Score	Sum
Sehwag	78	43	91			
Sachin	45	77	62			
Yuvraj	65	80	37			
Dhoni	34	15	46			
Raina	23	75	55			

Perform following:-

- a. Calculate Average and High score of each player using AVERAGE & MAX function
  - b. Calculate total score of each match using SUM function.
  - c. Sort above records in descending order on the basis of average.
  - d. Take the printout in landscape orientation
- 4) Prepare the Mark sheet of IT subject on the basic of 3 Unit test. Each of 30 Marks and perform following.
1. Calculate total marks, Average and Grade
  2. Auto format to the above table.
  3. Take the printout
- 5) Prepare the multiplication using
- 1) Relative cell reference
  - 2) Absolute cell reference.

Multiplicand	Multiplier	Product using Relative	Product using Absolute
13	1		
	2		
	3		
	:		
	:		
	10		

6) Create profit and prepare a column chart in MS-EXCEL using the data.

Month	Net Sales	Actual Cost	Profit
-------	-----------	-------------	--------

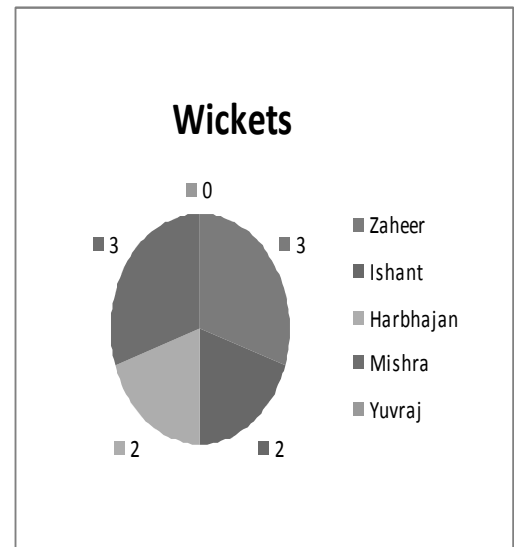
Jan. 10	22000	18000	
Feb. 10	245005	9555	
Mar. 10	32450	24850	

Perform following operations:-

- Find the profit
- Give a chart title "Profit Report"
- Take the printout.

7) Draw Pie chart of following excel sheet.

Bowler	Over	Maiden	Runs	Wickets
Zaheer	10	2	22	3
Ishant	10	1	36	2
Harbhajan	10	0	48	2
Mishra	10	0	37	3
Yuvraj	10	0	43	0



#### D) LibreOffice Impress/Ms-Powerpoint

1. Prepare the following slides with the information given below:

- Select the slide of your choice and write about yourself.
- Write about your family members name with relation.  
**Tip:** By using Title and 2 column text
- Using Title Content and text slide insert the picture of your favourite hero with the list of their movies.
- Finally run the slide continuously until Esc key is not pressed.

At last, write the steps that you have perform.

2. Create the following slide.

ICAT PVT LTD	
• COURSES	• FEES STRUCTURE
✓ C	❖ 1500
✓ C++	❖ 2500
✓ VB	❖ 2000
✓ ORACLE	❖ 3000
✓ JAVA	❖ 4000

- Change the bullet style in the first and the second level.
- Change the case of the first level text to upper case and second level text to lower case.(By using Change Case option)
- Change the attribute of the text to: Font : Arial, Font Style : Italics, Size:20
- Justify the text.

3. Select the 10 slides of your choice. Apply the following settings and write the steps you have perform in each options.

- Insert page number in each slide
- Timer should be displayed during execution.
- Change the background color of each slide.
- Set the interval time for each slide to be displayed.
- Use Flash bulb animation in your presentation.
- Select a Color Schemes of your choice.
- Insert Chart in one of your slide.
- Insert a table in your presentation

**M.C.M - I (SEMESTER – I)**  
**Practical**  
**PCMCMP106**  
**ELECTIVE**  
**Lab Based on PCMCMP104.1**

**Credit : 4 ]**

**[Max. Marks: 100**

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**Practical Based on Programming with ‘C’**

- 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 swap the contents of two variables.
- 4) A Program to accept the distance between two cities in Kilometer and print the distance in meter, feet, inches and centimeter.
- 5) A Program to accept the two sides and angle included by these two sides to find area and third side of a Triangle.
- 6) A Program to check a number is even or odd using conditional operator.
- 7) A program for testing leap year.
- 8) A program to find roots of Quadratic equation  $ax^2+bx+c$ .
- 9) A Program to check a number is palindrom or not.
- 10) A Program to generate a menu driven program using switch statement.
  - 1) Add
  - 2) Edit.
  - 3) Delete.
  - 4) Exit.
- 11) A Program to print multiplication Table of a number.
- 12) A program to print number, square and cube of the first 10 natural number.
- 13) A program to find the factorial of an integer number.
- 14) A program to generate and print Fibonacci sequences.
- 15) 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
```
- 15) A program to find the GCD of two Positive integers by successive division.
- 16) A Program to find the number of Armstrong number between 123 to 425
- 17) A program to print all the prime number between 10 to 100

**Note: Practical should be performed either using Open Source Software ‘C’ or by using Turbo ‘C’.**

## **Practical : PC Maintenance and Troubleshooting**

- 1) Study of various Input devices.
- 2) To study and Installation of Keyboard.
- 3) To study and Installation of Mouse.
- 4) Study of various Output devices.
- 5) To study and Installation of Scanner.
- 6) To study and Installation of Printer.
- 7) To study and Installation of Multimedia.
- 8) Study of different operating system.
- 9) Study of booting process.
- 10) To study assembling and disassembling the PC.
- 11) To study and Installation of configuring motherboard.
- 12) To study and Installation of VGA adaptor.
- 13) To study and Installation of SMPS.
- 14) To study and Installation of Software.
- 15) To study and Installation of antivirus software.
- 16) Procedure to cleanup Disk, Disk fragmentation.
- 17) Things to know while purchasing the computer.

**M.C.M. - I**

**(SEMESTER – II)**

**M.C.M - I (SEMESTER – II)**  
**PCMCMT201**  
**Paper –I : DBMS CONCEPTS**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Database Environment**

Basic Terminology, Data Processing, Traditional and DBMS Environment, Components of DBMS, Database Approach - Objectives, Benefits, Characteristics, Advantages of DBMS. Three Tier Architecture, Data Abstraction. **Database Administration:** Role, Functions, Responsibility

**UNIT – II : Data Model and Design**

Data Models, Record Based Logical Model, Relational Database Structure, Normalization, Normal forms, Functional Dependency, 1NF (First Normal Form), 2NF (Second Normal Form), 3NF (Third Normal Form), Relational Algebra, Codd's Rules

**UNIT – III : Working With Ms-Access**

Elements of an Access database - Tables, Queries, Forms, Reports, Macros. Introduction to Ms-Access, Designing Database, Crating Database using Wizard, Working with Table. **Field types** - Auto number, Date/Time, Number, Text, Yes/No, Hyperlink. Creating Tables using Design View and Using wizard, Editing Table, Editing Records

**UNIT – IV : Query and Form Designing**

**Query:** Filtering Data, Studying different types of Queries, Specifying Criteria in Queries, Filter using multiple criteria. **Forms, Report and Macro:** Procedure to create a form, Reports and Macros

**Books:**

- 1) R. Panneerselvam,“ Database Management System “,PHI, 2006, ISBN : 81-203-2028-X
- 2) Dr. Madhulika Jain,Vinita Pillai, Shashi Singh and Satish Jain, “Introduction to Database Management”, BPB, 2002, ISBN: 81-7656-638-1
- 3) Bioin C. Desai, “ An Introduction to Database Management”, GP Publication, 2006
- 4) Caleste Robinson, “ Access 97”, BPP, 1998, ISBN : 81-7029-928-4

**References:**

- 1) Abraham Silberschatz, Henry F. Korth, S. Sudarshan, “ Database System Concept “, McGraw Hill, 2002, ISBN : 0-07-228363-7.
- 2) C.J. Date, A. Kannan, S. Swamynathan,“ An Introduction to Database system”, Pearson, 2008, ISBN : 978-81-7758-556-8

## M.C.M - I (SEMESTER – II)

### PCMCMT202

#### Paper – II : SYSTEM ANALYSIS AND PROJECT MANAGEMENT

Credit : 4 ]

[Max. Marks: 80

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#### UNIT – I : System Concepts

**Systems Concepts:** Systems approach, characteristics, Types of Systems; Elements – Input, Output, Environment, Boundary Interface, Feedback & Control; MIS, Types of MIS: TPS, OAS, DSS. KWS, Data and Information, Value of Information, Information Life Cycle, Data Vs Information,

#### UNIT – II : System Analysis

**System Analysis:** System Development Life Cycle (SDLC), Information Gathering (Sources, Methods, Interviews, Questionnaires, Observation, Document Analysis etc.), Feasibility study, Analysis (PARIS model), Design, Implementation, Planning and Control for System success. Tools of Structure Analysis (Data Flow Diagram, Data Dictionary, Decision Tree, Decision Table, CASE tools)

#### UNIT – III : System Design & Implementation

**System Design:** System Design Principle, Input Design, Output Design, Form Design

**Implementation:** Testing, Level of Testing, Nature of Test Data, Conversion, User Training, Hardware and Software Selection

Documentation, Types of Documentations, Quality Assurance, Privacy, Disaster Recovery Plan, Maintenance Review

#### UNIT – IV : Project Management

Introduction, Management Spectrum, Project Manager, Project Estimation, Project Scheduling

Quality Management: Quality Concept, Software Quality, Software Reliability, ISO 9000 Quality standards

#### Books:

- 1) S. Sadagopan, "Management Information System", PHI, ISBN, 8120311809
- 2) Goyal, "Management Information System", ISBN 0333 933885
- 3) Jawdejar, "Management Information System", TMH, ISBN 0-07-044575-3
- 4) Elias Award, "System Analysis & Design", Golgotha Publication, 2<sup>nd</sup> Edition, ISBN: 81751568-X

#### References:

- 1) Rogern Pressman, "Software Engineering Practition Approach", ISBN 007-124083-7
- 2) Rajib Mall, "Fundamental of Software Engineering", PHI, 2<sup>nd</sup> Edition, ISBN-978-81-203-2445-9



**M.C.M - I (SEMESTER – II)**

**PCMCMT203.1**

**ELECTIVE Paper – III : OPERATING SYSTEM AND LINUX**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Introduction to Operating System**

Introduction to Operating System, Definition, Need, Functions, Types of Operating System, Simple Batch System, Multiprogramming, Time sharing system, Parallel system, Distributed systems, Real-Time system, Multiprocessing, On-line and Off Line Processing, Multitasking, Virtual Memory Management.

**UNIT – II : Introduction to DOS**

Introduction to Disk Operating System (DOS), File Types, Directory Structure, Booting - Warm and Cold Booting, Types of DOS commands (Internal and External)

**Directory commands:** DIR, MD, CD, RD, TREE, PATH, SUBST. Use of Wildcard

**File Management Command:** COPY, DEL, ERASE, REN, ATTRIB, XCOPY, BACKUP and RESTORE.

**General commands:** TYPE, DATE, TIME, PROMPT, VER. Batch commands & its purpose.

**UNIT – III : Linux**

Structure of Linux Operating System, Exploring the directory structure, Naming files and directories

**Shell:** Bourne, Korn and C-Shells

**File System Commands:** ls, mkdir, rmdir, cd, cat, mv, cp, rm, ln, pwd, more

Text editing with vi editor

**UNIT – IV : Shell Scripts**

**Pipe and Filters:** sort, grep, egrep **Permission modes:** chmod, chown, chgrp **Process:** ps, kill, Communication, **Shell Scripts:** Variables, Arithmetic in Shell Script, Control flow statements, Shell Parameters

**Books:**

- 1) TANENBAUM, “MODERN OPERATING SYSTEMS”, PHI, 2<sup>nd</sup> EDITION”, 2007 ISBN 81-317-0176-X
- 2) Peterson Richard, “The Complete References Linux”, 4<sup>th</sup> Edition., TMH, 2000, ISBN-13: 978-0072129403
- 3) Dr. S. B. Kishor, “Introduction to Operating System”, Das Ganu Prakashan

**References:**

- 1) Sillberschata, Galvin, Gange, “Operating System Concept”, John Willey and Sons, 2001, ISBN 9971-51-388-9
- 2) Tackett, Burnett, “Using Linux”, PHI, Fifth Edition, 2001, ISBN 81-203-1653

**M.C.M - I (SEMESTER – II)**

**PCMCMT203.2**

**ELECTIVE Paper – III : MODERN INFORMATION SYSTEM**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Introduction to Information System**

Introduction to Systems and Basic Systems Concepts, Types of Systems, Information Systems: Definition and Characteristics, Types of Information, Role of Information in Decision Making, Types of an Information system: Operations Support Systems and Management Support Systems, Comparison of EDP/MIS/DSS.

**UNIT – II : MIS**

An overview of Management Information System: Definition and Characteristics, Components of MIS, Frame Work for Understanding MIS: Robert Anthony's Hierarchy of Management Activity, Information requirements and Levels of Management, Simon's Model of decision- Making.

**UNIT – III : Functional Information System**

Functional Information Systems: A Study of Marketing, Personnel, Financial and Production information systems, Input transaction documents, applications and reports of Marketing, Personnel, Financial and Production information systems. Models for functional information systems.

**UNIT – IV : Knowledge Management**

Concept of Knowledge: Definition and characteristics of knowledge, Difference between data, information and knowledge, Knowledge versus experience. Types of knowledge: Explicit and Tacit knowledge. Nonaka and Takeuchi theory of knowledge creation: Socialization, Externalization, Combination and Internalization (SECI) Model. Introduction to knowledge management and knowledge management systems. The process of knowledge management: Creation/ capture, storage and retrieval, transfer and application.

**Books:**

1. D.P. Goyal, "Management Information Systems: Managerial perspectives", Macmillan India Ltd.

**Reference:**

1. J. Kanter, Management information Systems, Prentice Hall of India.
2. Gordon B. Davis & M.H. Olson, Management Information Systems: Conceptual Foundation, structure & Development, McGraw Hills Publishing.
3. Robert G. Murdick& Joel E. Ross & James R. Claggett, Information Systems for Modern Management, Prentice Hall of India.

**M.C.M - I (SEMESTER – II)**  
**PCMCMT204.1**

**ELECTIVE Paper –IV: COMPUTERIZED ACCOUNTING USING TALLY**

**Credit : 4 ]**

**[Max. Marks: 80**

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**UNIT – I : Introduction to Computerized Accounting**

Introduction to Accounting, Features of Accounting, Classification of Accounts, Books of Accounts, Financial Statement, Accounting Organization, Need of Computerized Accounting, Features of Computerized Accounting, Manual v/s Computerized Accounting

**UNIT – II : Accounting software's and Configurations**

Introduction to Tally, Features of Tally, Disadvantages of Tally, Tally Screen, Company information, Creating new Company, Gateway, Selection of Company, Selection of Options, Buttons at Gateway, Working with multiple Companies, Company Features, Configuration- General, Numeric Symbols, Voucher Entry, Creation of Voucher Screen, invoice Order Entry, Printing.

**UNIT – III : Account Info and Vouchers**

Accounts info menu, Account Groups- create new group, creation of primary group. Normal and advance information, Ledger Accounts, cost categories, Cost Centers. Creation of Budget, Types of budget. VAT/CST Report generation, TDS and Service Tax Voucher- Voucher Entry, creation of Vouchers Screen, types of Voucher, Selection of Voucher types, Post Dated Voucher, printing of Vouchers, Cheque Printing, advance Features of account Voucher.

**UNIT – IV : Inventory Info, Security**

Inventory info, Features of Inventory info, Configure- Inventory Info, Stock Item, Stock Group, Stock Category, godown, balance Sheet, Audit Trail, Ratio Analysis. Display- Accounting Report Display, Inventory report Display, and MIS Report Display. Printing Reports, Export, Export of Data. Maintenance- Bank Reconciliation, Security- Users and Password, Security Controls, Types of Security, Creation New Security Levels and Tally Audit.

**Books:**

1. K.K. Nadhani, "IMPLEMENTING TALLY 6.3", BPB, 2006, ISBN 81-7656494-X
2. Anthony R-N. and J.S.Richard, "Accounting Principle", Irwin Inc. Publication.
3. Dr. S. B. Kishor, Vijayalaxmi Pareek, "Tally", Das Ganu Prakashan

**References:**

1. M.C. Shukla, T.S.Grewal and S.G.Gupta " Advances Accounts Vol-I", S. Chand & Company, Delhi. 2005 ISBN 81-219-0396-3
2. P.C. Tulsian, "advanced Accountancy", Tata McGraw Hill Publication.

## M.C.M - I (SEMESTER – II)

### PCMCMT204.2

#### ELECTIVE Paper –IV : DATA STRUCTURE AND FILE SYSTEM

Credit : 4 ]

[Max. Marks: 80

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#### UNIT – I : Introduction to Data Structures

Data Structure and Algorithms-Introduction, Data Structures, Fundamentals of DS, Operations on DS, Data, Information, Concept of Data Types, Abstract Data Types, Different Approaches for Designing an Algorithm, Type of Algorithm, Algorithm of Analysis, Complexity of Algorithm, Big-O Notation, String-String Operation and Function. Arrays-Introduction, Types of Arrays, Memory/Storage Representation of One And Two Dimensional Array, Declaration of Array, Multidimensional Array Number of Elements in 2-D, Jagged Array, Sparse Matrix, Records and Pointers, Polynomial. Stacks-Introduction and Definition, Array Representation of Stack, Application of Stack, Hierarchy of Operation, Representation of Arithmetic Expression, Multiple Stack , Stack as An ADT.

#### UNIT – II : Recursion, Queues and Link List

Recursion-Introduction, Recursion Properties, Applications of Recursion, Advantages and Disadvantages of Recursion, Tail Recursion, Linear and Binary Recursion, Scanning Folders Recursively, Nested Recursion, Recursive Function as an Argument, Recursion and Array, Recursion and String, Tower of Hanoi, Concept of Simulation. Queues-Introduction, Applications of Queue, Various Representations of Queue, Type of Dequeue, Priority Queues, Application of Priority Queue, Queue as an ADT. Linked List-Introduction, Dynamic Memory Management, Definition of Linked List, Application of Linked List, Representation of Linked List, Memory Allocation, Garbage Collection, Free List, and Various Representation of List.

#### UNIT – III : Tree and Graphs

Trees-Introduction, Definition of Trees, Binary Tree, Type of Binary Tree, Operation on Binary Tree, Traversal of Binary Tree, Binary Search Tree (BST), Expression Trees, Memory Representation of Binary Tree, Threaded Binary Tree, AVL Tree, B-Tree. Graphs: Definition of Graph, Various Terminology Used in Graph, Sequential Representation of Graph,

#### UNIT – IV : Sorting and Searching, File Structure

Sorting-Definition of Sorting, Classification of Sorting ,Stability, Comparison of Sorting Method, Bubble Sort, Sequential Sort, Insertion Sort, Selection Sort, Merge Sort, Shell Sort, Radix Sort, Heap Sort, Quick Sort, Topological Sorting. Searching-Definition, Type of Searching, Soundex. File Structure-File Concept, Operation on File, File Type, File Structure, Basic File Terminology, File Organization, Factors Affecting,Type of File Organization,

#### Books:

- 1) D. Samanta, “Classical Data Structure”, Prentice Hall India, New Delhi.
- 2) Lipschutz Schaums, “Data Structure”, Outline Series TMH Publication, Year-2003, ISBN-0-07-099032-8
- 3) Dr.S. B. Kishor, “Data Structure”, Das Ganu Prakashan.

#### References:

- 1) Tenenbaum, “Data Structures Using C and C++”, Prentice Hall India Publication, “2ndEdition”, Year-2006, ISBN-81-317-0328-2.
- 2) Deshpande and kakade, “C and Data Structure”, Dreamtech Publication, Year-2007, ISBN-81-7722-424-

**M.C.M - I (SEMESTER – II)**  
**Practical**  
**PCMCMP205**  
**Lab Based on PMCMT201**

**Credit : 4 ]**

**[Max. Marks: 100**

**PRACTICAL -I BASED ON DBMS CONCEPTS**

Create table Student (Student\_no, Student\_name, and Course) in MS-ACCESS with the following details and perform following operations.

Student_no	Student_name	Course
101	Sunil	Vb
102	Anshu	Vb.Net
103	Sonam	Tally
104	Shital	Vb.Net

1. Use Column width as best fit.
2. Set Student no as a Primary Key.
3. Insert at least 10 students' records.
4. Display all the students whose name begin with letter 'S'.
5. Display the query view and take out the print out.
6. Add new fields such as Fees, Date\_adm ,Date\_of\_birth, .Address)
7. Add data to above newly fields.
8. Select Student name, Course and Fees from student table.
9. Delete all the students who were admitted on specific date.
10. Update fees to increase it by thrice.
11. Select all the students of VB.NET paying course fees of 4000.
12. Update table by replacing the course name to TALLY wherever the course fees is 3500.
13. Delete the record where Student name is SONAM.
14. Display the student name, student no who was born on '14/6/1996'
15. Replace the Address of student say, ANSHU to PUNE.
16. Remove all the records where number of students is less than 2 for particular course.

B] Create the Tables in which

Stud\_per\_Detail(Stud\_no, Stud\_name, Sex, date\_of\_birth, Address, Ph\_no) and  
Stud\_off\_detail(Stud\_no, Course, Fees, date\_Adm).

1. Select Stud\_Name, Address from Stud\_Per\_Detail and Stud\_no, Course, Fees from Stud\_off\_datail.
2. Create a report view for above query.
3. Append the records of above tables Stud\_Per\_Detail to Stud\_History where Student Date\_of\_Birth i s 14/06/1996.
4. Print the table design view and datasheet view.

C] Create a table Donar(Donar\_no, Donar\_name, BG, Sex) by using following instruction.

1. Use Columnar Layout.
2. Use Blueprint style.
3. Give the title for Form as Donar Details Form.
4. Enter 5 records.
5. Print the Form view.

**M.C.M - I (SEMESTER – II)**  
**Practical**  
**PCMCMP206**  
**Lab Based on PCMCMP204**

**Credit : 4 ]**

**[Max. Marks: 100**

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**Practical Based on Computerized Accounting Using Tally**

A. Create the following companies by using the details given below :

Name of the Company : WINDOWS PVT LTD  
Address : Tukum, Chandrapur  
E-mail : [icat@icat.co.in](mailto:icat@icat.co.in)  
Income Tax number : IT 10003  
Local sales tax no : Not applicable  
Currency Symbol : Rs  
Financial year from : 01-04-09  
Books beginning from: 01-04-09  
Password security : Not Required

B. Create another company named Rahul Kapoor Computer Ltd having financial year beginning from 1<sup>st</sup> April 09 and the books are maintained from 1<sup>st</sup> August. Enter other details as per your assumptions. Keep the Income tax number and Sales tax number & local sales tax number blank as they have not been given as yet Upon saving the company enter the income tax number as Gk3003.

C. Create the company named GK Association having default financial year and books of accounts. Enter other details as per your assumption.

D. Alter the company named Rahul Kapoor Computers Ltd with the following changes:

Financial year : 01-05-11  
Books beginning from: 01-09-11  
Income tax number : RK008

E. Delete the company created for GK Association.

F. Create a Company with all relevant details including VAT options

Note: Continue working in the same company created by you (WINDOWS PVT LTD) in the last lab session.

1. Create Group following the hierarchy shown below:

Sundry Debtors  
 Debtors --- South  
     --- North  
 Debtors --- East  
     Debtors --- East  
     Debtors --- North East  
 Debtors --- West  
 Debtors --- International

2. Create the following ledgers:

NAME	GROUP	OPENING BALANCE
Rahul Kapoor Computers Pvt Ltd	Debtors --- South	40000 Dr
Shyam Pvt Ltd	Debtors --- South	0.00
Geeta Computers	Debtors --- North	0.00
Sarita Association	Debtors --- North	0.00
Ceema Group	Debtors --- East	0.00
Meenakshi Pvt Ltd	Debtors --- East	0.00
Rasahi Ltd	Debtors --- International	0.00
UGI International	Debtors --- International	0.00
Citi Bank (See note ii)	Bank Account	300000 Dr
Bank of Baroda	Bank Account	40000 Dr
Sales Domestic	Sales Account	0.00
Sales--- International	Sales Account	0.00
Purchases	Purchase Account	0.00
Furniture	Fixed Assets	600000 Dr



Note:

- i) Details of Opening Balance of Rahul Kapoor Computers Ltd Bill no Feb/21/11 dt 1<sup>st</sup> feb 2011 for Rs. 25000-45 days credit bill no Feb/8/11 dt 2<sup>nd</sup> feb 2011 for Rs 15000-2 month credit.
- ii) The reconciliation for city bank will be carried out manually for the month of April & from May on wards reconciliation will be done through tally.
- iii) Reconciliation for bank of India will be done from 1<sup>st</sup> April.

Customer ledger balance is maintained bill by bill. The Company charges overdue interest for delayed payment received beyond credit period @ 15% p.a. from all customers.

3. Note : Create groups and ledgers for sales as under in the company named Rahul Kapoor Computer Ltd created by you.

Sales

Computer Sales

Service Charges

Installation charges

Annual maintenance charges

Maintenance charges

Software development

4. Create the ledgers under appropriate predefined groups

1. Cash a/c Computer sales a/c
2. General reserve a/c
3. Capital reserves a/c
4. Mortgage loan a/c
5. Bank overdraft a/c
6. Raw material a/c
7. Opening stock a/c
8. Closing stock a/c
9. Fixed deposit a/c
10. Security deposit a/c
11. Buildings a/c Machinery a/c

12. Furniture a/c Commission received a/c
13. Printer purchase a/c Commission paid a/c
14. Rent received a/c Salary a/c
15. Rent paid a/c Indian bank a/c
16. Wages a/c Sales returns a/c
17. Capital a/c Depreciation a/c
18. Purchase returns a/c
19. John & Co. a/c (purchased goods from this company)
20. Ram agency a/c (sold goods to this company)

### **CREATING VOUCHERS**

5. Create vouchers and view Profit and loss a/c and Balance sheet.

1. Cash sales Rs. 10000
2. Cash purchase Rs. 2000
3. Sales to 'X' on credit Rs. 10000
4. Purchase from 'Y' on credit Rs. 5000
5. Depreciation on machinery Rs 2000

6. Create vouchers and view Profit and loss a/c and Balance sheet for the following:

1. Uday started business with capital Rs. 100000 by way of bank cheque
2. He purchased material for business Rs 20000 in cash
3. He brought material for business Rs.10000 on credit from X
4. He sold goods to Y on credit Rs 50000
5. He sold goods for cash Rs 60000
6. He paid salaries Rs. 20000 by way of cheque.
7. Received cash from Y Rs. 49000 and discount allowed Rs.1000
  - 1) Create Stock Group and Stock Categories in the company named WINDOWS PVT LTD.
 

STOCK GROUPS

    1. Systems
    2. Parts
      - a. Motherboard
      - b. CD-ROM drives
    3. Software

- a. Ace
- b. King
- 4. Hardware
  - a. Keyboard
  - b. CPU
  - c. Mouse

Stock Categories (for items belonging to Software Stock Groups)

- 1. Software
  - a. Database
  - b. Spreadsheet

Godowns

- 1. On site
- 2. Warehouse
- 2) Continue working with WINDOWS PVT LTD Company. The business transactions to the company for the early part of Aug 11 are:

<b>WINDOWS PVT LTD</b>	
DATE	TRANSACTION DETAILS
01/08/11	Paid Rahul Computers Rs. 5000 by cheque
01/08/11	Bought office supplies for Rs. 250 with petty cash ( No Sales tax)
02/08/11	Rs 800 in wages paid to employees by cheque Rs300 tax deducted at source liability
05/08/11	Banked a Cheque for Rs 6000 received from GK company
06/08/11	Sold A computer System on Credit to Ramesh & Sons for Rs 1500 +Rs 225 sales tax
06/08/11	Withdraw Rs. 300 from the Bank Account for petty cash
07/08/11	Bought software on credit from Priya for Rs 450 + Rs 71 sales tax

**Hints:**

- 1. If you don't have the Gateway of Tally menu on the screen press ESC. Select Accounting Voucher to bring up the Voucher Creation Screen process to enter each voucher is:
- 2. The basic process to enter each voucher is:
  - i) Check the date is correct and use F2: Date to change it if necessary.
  - ii) Select the voucher type from the button bar and make a further selection from the Supplementary list Tally displays if necessary.
  - iii) For Purchase and Sale vouchers enter the reference
  - iv) Select the ledgers and enter the amounts
  - v) Type the narration and check all the data is correct before accepting.

## **2.CREATING PROFIT AND LOSS ACCOUNTS AND BALANCE SHEET**

**Record the following manual trail balance in tally**

### **Trail balance of Mr. Vijay**

particulars	Dr.(Rs)	particulars	Cr. (Rs)
Cash in hand	25000	Sales	200000
Stock	40000	Purchase return	1000
Wages	25000	Creditors	25000
Purchases	100000	Capital	30000
Sales returns	3000	provision for bad & doubtful debts	4000
Salaries	25000		
debtors	42000		
	<hr/>		<hr/>
	260,000		260,000

### **Adjustments:**

1. Stock (closing) Rs. 25000
2. Salaries outstanding Rs.5000
3. Write off Rs.2000 as bad debts for Rs. 5000

Prepare profit and loss A/C and balance sheet of Mr. Vijay in tally after taking into account of the above adjustment.

### **3. From the following information prepare S.P. college accounts**

Debit	Rs	Credit	Rs.

Building	50000	Admission fees	10000
Sports equipments	20000	Tuition fees	100000
Library books	30000	Government grant	50000
Shares of 'XYZ Co.	50000	Rent	10000
Salaries	10000	General fund	10000
Stationery	10000	Miscellaneous receipts	30000
General expenses	15000		
Cash at bank	25000		
	210,000		210,000

**Additional information:-**

1. Tuition and other fees outstanding Rs. 10000
2. Sports equipments Rs. 10000 was purchased at the beginning of year
3. Provide 10% depreciation on building and sports equipments

**INVENTORY SECTION PROBLEMS**

1. A publication company maintains its stock in the following way.

s.no	Computer books	Science books	Others books
1.	100 fundamentals of computers @150 each	200 Newton science @ Rs. 200 each	1000 English novels @ Rs. 100 each
2.	500 internet @ 50 each	500 general science @ 300 each	500 children books @ 200 each

3.	300 java @ 150 each	1000 science dictionary @ 500 each	---
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Place the information in appropriate place.

### **INVENTORY VOUCHERS**

#### **2. Creating vouchers entry from the following transaction and view balance sheet.**

1. Started business with cash Rs. 200000
2. Purchased 100 litres of coconut oil @ Rs 100 per liters from Kerala co. Ltd
3. Purchased 500 soaps @ 50 each from Hindustan lever ltd.
4. Purchased 1000 @ 20 each detergent soaps from nirma washing co. ltd.
5. Purchased 1000 kgs of rice @ 15 per kg on cash basis from konaseema rice ltd.
6. Purchased 500 kgs of rice Rs 20 per kgs from Punjab rice ltd
7. Sold 400 soaps @ Rs 60 each to 'X' ltd
8. Sold 1000 kgs of rice @ 20 each to 'y' Ltd.
9. Sold 800 liters of coconut oil on cash basis @ Rs. 125 each.
10. Purchased furniture Rs 5000
11. Sold 1000 detergent soaps on cash basis @ Rs. 25
12. Purchased weighting machine for Rs 2000
13. Charge depreciation on furniture and weighting machine @ 10% each
14. Returned 10 liters of coconut oil to Kerala co. Ltd due to expiry date.
15. Paid rent Rs 2000 by cheque.
16. Paid sales promotion expenses Rs 5000
17. Cheque received from 'X' Ltd Rs 20000
18. Cash received from 'Y' Ltd Rs 15000
19. Cheque sent to Kerala Co. Ltd for Rs. 8000.
20. Cash given to Hindustan Ltd Rs. 25000
21. Cheque sent to nirma washing Co. Ltd for Rs. 20000.

## **Practical Based on Data Structure and File System**

- 1) To delete an element from  $K^{\text{th}}$  position of Array.
- 2) To insert an element ITEM at  $K^{\text{th}}$  position of Array.
- 3) To insert an element Item in Sorted Array.
- 4) To implement the operation of Push, Pop and to know the status of stack.
- 5) An algorithm to Check the status of stack.
- 6) To find factorial of a number using Recursion.
- 7) To find multiplication of two number using Recursion.
- 8) To simulation the game of Tower of Hanoi using recursion.
- 9) To implement the operation of insertion and deletion on Queue.
- 10) A menu driven program to implement the operation of addition, deletion, searching, trevesing, reversion, sorting, counting number of nodes and at the end erasing the link list.
- 11) Implementation of stack using linked list.
- 12) Implementation of Queue using linked list.
- 13) To create binary search tree, traverse it and find number of leaves and total nodes in the Tree.
- 14) To arrange the list of number in a Sorted order using Merge Sort.
- 15) To arrange the list of number in the Sorted order using Quick sort.