

Computer Systems and Applications Paper I

- **Data Communication, Networking and Internet**
- **Database and MySQL**
- **Spread Sheet Ms Excel**

Examination Scheme

- **Theory** **75 marks (2 ½ hrs)**
- **Practical Examination** **20 marks**
- **Class participation** **5 marks**

Individual passing for theory and practicals

Question paper pattern

Q1. True or False/ Multiple Choice Questions

Based on entire syllabus

MS Excel – 2 marks

My SQL – 2 marks

Data communication , Networking & Internet–

11 marks

Q2. Descriptive questions on Data communication , Networking & Internet

- 15 marks

Q3. My SQL

- A creating a table - 7 marks
- B Explain the following functions – 8 marks
- B Write SQL statements

Q4. My SQL

- A Write SQL statements- 7 marks
- B Write SQL statements- 8 marks

Q5. Ms Excel

- A Write Excel steps – 8 marks
- A Write Excel steps – 8 marks
- B Write Excel steps – 7 marks
- B Excel Functions - 7 marks

MICROSOFT EXCEL

- Excel is the world's most widely used spreadsheet program.

It has 3 components

- Spreadsheet - It is computer equivalent of paper ledger sheet which contains grid of rows and columns
- Database- Huge amount of data can be stored , retrieved and processed
- Chart – It presents the data in graphical / diagrammatic manner for effective presentation and analysis

Features of Excel

- Huge storage capacity – 1,048,576 rows and 16,384 columns
- Wide range of built in functions for mathematical, statistical, financial calculations and database , logical , string and date operations
- Effective & efficient presentation using Charts
- Advance data analysis tools such as pivot tables, solver , what –if analysis
- Efficient Database management
- Easy calculations through powerful formulae

- Quick connections to external data access
- On line help facility

Starting Excel

- Click at start button
- Click at All programs
- Click at Microsoft Office
- Click at Microsoft Office Excel

To create a new workbook

- Click at Microsoft Office Button
- Click on New
- Click on Blank workbook
- Click on create

To open an existing workbook

- Click at Microsoft Office Button
- Click at Open command
- Navigate to the folder that contains the workbook you want to open
- Double Click on it

To open an recently used workbook

- Click at Microsoft Office Button
- It displays office menu .
- Click on Recent . It displays list of recent documents along its side.
- Double click on the workbook you want to open

Entering data in a worksheet

- Worksheet can contain following data types
- Text
- Numbers
- Date
- Time
- Functions

Entering the text

- A cell can hold 255 characters.
- Excel automatically left aligns the text

Entering text in one line

- Click at the cell into which you want to enter the text
- Type the text
- As and when you type , it is displayed on the formula bar
- When done, strike the enter key
- By default it displays only first 8 characters , though it accommodates entire text. But if next column is not filled in it displays the entire text.

Entering the text with line breaks

- Click at the cell into which you want to enter the text
- Type the text you want to appear in the first line
- Strike Alt + Enter
- Line break is generated
- Now type the text in second line

Entering Numbers

- Numbers can be entered with commas, dollar sign , % sign & scientific notations
- The precision is upto 15 decimal places
- Click at the cell
- Type a numerical value without any formatting feature such as \$, Rs. , etc and strike enter key
- For numbers in exponent form type
- Base E Exponent
- eg. $2E\ 03 = 2 \times 10^3 = 2000$
- To enter fraction type
- whole number – space- followed by fraction
- eg. $4\ 2/5$

Entering date and time

- Click at the desired cell
- Type the date in mm-dd-yy form
- Numbers can be separated by / or –
- Eg. 07/25/13 press enter key.
- For time type hr:min a for a.m.
- p for p.m.
- For typing date and time together, type date –space –time & press enter key.
- For entering the current date type =Now()

Entering data using fills

- Entering long series of data such as days in a month , weekdays , months in a year or any other numeric series with definite progression is easily done in Excel using fills
- Autofill
- Autocomplete
- Autocorrect
- Autofit

To fill data using Autocomplete

- This is used for typing the text only
- Type the text in a cell & enter
- Move in the same column
- If you type first few letters of the text entered, excel automatically completes the text based on the entries made in the column

To fill data using Autocorrect

- Autocorrect is used to correct the misspelled words automatically or to insert full word if abbreviation is entered.
- It is set up by default with a list of typical misspelled words and corrections to be done.
- We can add delete or make modifications in the present list

To Add Autocorrect entry

- Click on Microsoft office button
- Click on Excel options at the bottom
- Click on proofing

- Click on Autocorrect
- It displays various options such as
- Correct two initial letters capitals
- Capitalize first letter of the sentence
- Capitalize names of days
- Replace text as
- Replace _____ with _____
- Choose the required option
- Close Autocorrect
- Close Excel options

To delete Autocorrect entry

- Click on Microsoft office button
- Click on Excel options at the bottom
- Click on proofing
- Click on Autocorrect
- Click on entry to be removed from the replace list
- Click on delete
- Close Autocorrect
- Close Excel options

Autofit option

- Excel displays only first 8 Characters in a column, though it accommodates the entire text.
- If column contains text more than 8 characters long, we can use Autofit option to adjust the column width according to the size of the text
- Select the cells where the width to be adjusted
- Click on Format option in cells group under Home tab
- Click on Autofit Column width/ row height under cell size
- The Column width/ row height will be adjusted automatically.

Entering functions / formula

- Any function or formula starts with = sign
- Click on desired cell
- Type = followed by function name & its argument/s in the round bracket
- Eg. =sum(A1:A10) , =count(B6:B25)
- For formula , type = followed by formula
- Eg. = D3/5 , = B5 * 20%
- Mathematical operators used are + - * / ^ %

Undo & Redo commands

- Generally by default these commands can be activated by clicking on these buttons on Quick Access Toolbar
- Undo command cancels the last command
- Redo command repeats the last command

Navigating the worksheet

KEY	ACTION
←	Move one cell left
→	Move one cell right
↓	Move one cell down
↑	Move one cell up
Enter	Move one cell down
Tab	Move one cell right
Control Home	Move to A1
Control End	Move to the last cell in the worksheet
PgUp	Move one page up
PgDn	Move one page down

Selecting the cells

Selecting Continuous group of cells

- Select the first upper leftmost cell
- Drag to bottom rightmost cell
- We can also use shift and arrow keys simultaneously
- All the cell in the rectangle are selected

Selecting non Continuous group of cells

- Select the first range of cells
- Hold down the control button & select the next range of cells

Editing the cell contents

Edit cell contents in the formula bar

- Click the cell you want to edit
- Select the text to be edited in the formula bar
- Type new text & strike the Enter Key

Edit cell contents directly in the cell

- Double Click the cell you want to edit
- Select the text to be edited
- Type new text & strike the Enter Key

Inserting symbol in a cell

- Click on a Insert Tab
- Click on symbol
- Click on Font down arrow
- Select the desired font from which you want to pick up the symbol

- It displays the all the symbols under that font
- Click on the desired symbol
- Click on Insert
- Click on OK

Moving / Copying the cell contents

- Select the cells you want to cut/ copy
- Click on Home Tab
- Click on cut / copy button from clipboard group
- Click on the cell at which you want to paste the contents
- Click on paste button from clipboard group
- It gives various options under paste and paste values
- Select the desired one

Paste Special Command

Paste special gives you the ability to select what should be pasted into destination cells

- such as pasting cell contents
- without formatting features
- without formula
- to add/ subtract/ multiply /divide the copied cells by destination cells
- Without blank cells in the range
- as transpose

Inserting rows and columns

- Right click anywhere in the column / row before which you want to insert column / row
- Click at insert option
- It displays dialogue box with option
- Shift cells right
- Shift cells down
- Entire row
- Entire column
- Click at Entire column / row
- Entire column / row will be inserted

Find and Replace values

- Click at Home Tab
- Click at Find command in Editing group
- It displays Find dialogue box
- Type the text you want to find
- Click at the replace tab at the bottom of the dialogue box
- Click at
 - Find next - to skip the present value
 - Replace - to replace the present value
 - Replace All - to replace the all values

Checking Spelling

- Click the Review Tab
- In the proofing group, click Spelling
- If the spelling mistake is detected , it displays Spelling dialogue box
- Misspelled word is shown as Not in dictionary with the options Ignore once , Ignore All , Add to the Dictionary
- It also gives suggestions with the options Change , Change All , Autocorrect

Formatting Cells containing numbers

- Select the cells you want to format

To add currency symbol

- Click on the down arrow of \$ sign from Number group at Home Tab
- Select More Accounting Formats
- Click on down arrow of \$ symbol
- Select ₹ Urdu

To add % symbol

- Click on % symbol from Number group

To add comma

- Click on , symbol from Number group
- Number of decimal places can be increased or decreased by selecting Increased or decreased decimal buttons in Number group.

Set a Date and Time format

Formatting Date

- Select the cell

- Click on Date from Number group
- It gives different formats of date
- Select the desired one & Click on OK

Formatting Time

- Select the cell
- Click on Date from Number group
- It gives different formats of date
- Select the desired one & Click on OK

To format the Font

- Select the cell you want to format
- Click on Home Tab
- Select Font group & Click on down arrow of Font
- It displays various fonts available, select the desired one
- Change the size of font , colour , style as Bold, Italic , underline by clicking on respective buttons at Font group

To fill the background colour

- Select the cells
- Click on fill colour button from the font group
- Select the colour , Click on OK

To add border to the cell

- Select the cell / group of cells & Click on Border button from Font group
- It displays various formats of cell borders, select the desired one.
- Click on OK