COMPUTER APPLICATIONS IN BUSINESS – 2014

[MODIFIED AS PER THE SYLLABUS OF BCH 4.3]

Name of the Course : B.Com. (Hons.) CBCS
Name of the Paper : Computer Applications In Business

Attempt All questions.

PART A

Q. 1. State *True* or *False* with reasons: 5×2=10

(*i*) RAM (Ramdom Access Memory) is non-volatile in nature.
(*ii*) [32] of decimal number is equivalent to 10000 of binary number.
(*iii*) Assembly language is also called First Generation Language.
(*iv*) CIS is short for Computer Integrated System.
(*v*) Software running in a Bank is a General Purpose Software.

Ans. (*i*) *False*. RAM is volatile in nature. It loses data when power is switched off.
(*ii*) *True*. $(100000)_2 = 1 \times 2^5+0+0+0+0+0$
(*iii*) *False*. Assembly language is a second level language.
(*iv*) *False*. Computer Information System is short of CIS.
(*v*) *False*. Software running in a bank is a Special Purpose Software.

Q. 2. (*a*) What are the various types of audit programs? 5
(*b*) What do you mean by Analytical Reporting? Discuss its uses. 5

Ans. (*a*) See Q. 2, Unit V. [Page 56
(*b*) See Q. 7, Unit V. [Page 59

Or

(*a*) Explain the difference between Interpreter and Compiler. 5
(*b*) What is a Search Engine? Discuss any *two* Search engines. 5

Ans. (*a*) *Interpreter and Compiler.*

Interpreter. An interpreter is a type of translator used for translating programs written in high level languages. It takes one statement of a high-level language program, translates it into machine language instructions and then immediately executes the machine language instructions. Thus in case of interpreter, the translation and execution processes alternate for each statement encountered in the high level language program. If there is a syntax error in any instruction, the execution of the program is halted and an error message is displayed. Every interpreted language, such as BASIC and LISP, has its own interpreter.

Compiler. Compiler is a translator program that translates a high level language program into machine language before executing it. Since high-level language instructions are macro instructions, the compiler translates each high level language instruction into a set of machine language instructions. Hence there is one-to-many correspondence between the high level language instructions of a source program and the machine instructions of its equivalent program. Even a syntax error in the last line will not allow the compilation of whole of the program. The source must be free of errors before being compiled. In case of errors, the compiler will not create the object code until all the errors are rectified. For each high-level language, a separate compiler is required.

(b) Search Engine. A search engine is a tool designed to search for information on the World Wide Web. Information may consist of web pages, images, information and other types of files. Some search engines also mine data available in news books, databases, or open directories. Unlike Web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input.

Google is an example of a search engine. It has one of the largest databases of Web pages, including many other types of Web documents and document formats (*e.g.*, PDFs, Word or Excel documents, PowerPoint etc.).

Q. 3. (a) Write the steps of FIND and REPLACE in MS-Word. 5

(b) Explain the procedure to print a Worksheet in MS-Excel. 5

Ans. (a) ***The steps of FIND and REPLACE text in MS-Word.*** FIND and REPLACE in MS-Word enables user to automatically replace a word or phrase with another.

For example, one can replace Acme with Apex.

The steps are:

(*i*) On the Home tab, in the Editing group, ***Click*** Replace.

(*ii*) ***Click*** the Replace tab.

(*iii*) In the ***Find*** what box, user has to type the text to be searched.

(*iv*) In the ***Replace*** with box, type the replacement text.

(*v*) To find the next occurrence of the text, ***Click*** Find Next.

(*vi*) To replace an occurrence of the text, ***Click*** Replace. After clicking Replace, MS-Word moves to the next occurrence of the text. To replace all occurrences of the text, ***Click*** Replace All.

(b) Previewing a worksheet before printing is useful because there are peculiarities in paging worksheet data which can result in wastage of paper and effort if it is not corrected. User can check the page breaks for any report that requires more than one page. Print Preview shows exactly how the worksheet data will be paged when printed so that the user can make last minute changes to the page settings before sending the report on to the printer after everything looks okay.

Procedure for printing a worksheet:

If the worksheet has a defined print area, Microsoft Excel will print only the print area unless a specific selection is made. *For example,* if the user selects a range of cells to print and then clicks **Selection,** Excel prints the selection and ignores any print area defined for the worksheet.

Steps to Print are as follows:

Step 1: On the **File** menu, click **Print.**

Step 2: Under **Print what,** select an option to print the selection, the active sheet(s), or the entire workbook.

Steps to Print several worksheets at once:

Step 1: Select the worksheets to print.

Step 2: On the **File** menu, click **Print.**

Steps to Print several workbooks at once:

To print several workbooks at once it is a precondition that all the workbook files to be printed must be in the same folder.

Step 1: On the **File** menu, click **Open.**

Step 2: Hold down CTRL and click the name of each workbook you want to print.

Step 3: In the **Open** dialog box, click **Tools,** and then click **Print.**

Or

(a) Explain the types of Alignments in a Word Document. 5

(b) What do you mean by Cell Referencing and what are the different types of Cell Referencing in MS-Excel? 5

Ans. (a) ***Types of alignment in a document.*** Broadly there are two types of alignment in a document, *viz.*, horizontal and vertical. Horizontal alignment determines the appearance and orientation of the edges of the paragraph: left-aligned, right-aligned, centred, or justified. In a left-aligned paragraph (the most common alignment), the left edge of the paragraph is flush with the left margin. In a justified alignment, horizontal spacing is adjusted so that text is aligned evenly along both the left and right margins. Justifying text creates a smooth edge on both sides.

Vertical alignment determines the paragraph's position relative to the top and bottom margins. This is useful, *for example,* when we are creating a title page, because we can position text precisely at the top or center of the page, or justify the paragraphs so that they are spaced evenly down the page.

(b) A ***cell reference*** identifies a cell or group of cells in a workbook. When cell references are included in a formula, the formula is linked to the referenced cells. The resulting value of the formula is dependent on the values in the referenced cells and changes automatically when the values in the referenced cells change. Cell references are especially helpful in creating complex formulas.

There are ***three types*** of cell references, *viz.*, Relative, Absolute and Mixed References.

Relative references refer to cells by their position in relation to the cell that contains the formula, such as "the cell two rows above this cell."

Absolute references refer to cells by their fixed position in the worksheet. *For example,* the cell located at the intersection of column A and row 2.

A **Mixed reference** contains a relative reference and an absolute reference. **For example,** the cell located in column A and two rows above this cell.

Absolute and mixed references are important when copying formulas from one location to another in the worksheet. When we copy and paste, relative references adjust automatically, while absolute references do not.

A relative reference to cell A1, *for example,* looks like this: **=A1**. An absolute reference to cell A1 looks like this: **=$A$1**. Combining relative and absolute references to cell A1 to create mixed references: **=$A1** or **=A$1**. If the dollar sign precedes only the letter (A, *for example*), the column coordinate is absolute and the row is relative. If the dollar sign precedes only the number (1, for example), the column coordinate is relative and the row is absolute.

Use of F4. While entering or editing a formula, pressing F4 helps to change reference types quickly. The following steps show how:

1. Select cell A1, and type **=B1+B2** (but do not press Enter).

2. Press F4 to change the reference nearest to the flashing cursor to absolute. The formula becomes **=B1+$B$2**.
3. Press F4 again to change the reference to mixed (relative column coordinate and absolute row coordinate). The formula becomes **=B1+B$2**.
4. Press F4 again to reverse the mixed reference (absolute column coordinate and relative row coordinate). The formula becomes **=B1+$B2**.
5. Press F4 again to return to the original relative reference.

Q. 4. (*a*) Explain any *two* logical functions with examples. 5

(*b*) What are the different Layouts in Presentation Software? 5

Ans. (*a*) Presentation software provides a number of preset slide layouts to choose from, all of which can be modified to fit requirement of user. A layout determines how text, images, and other objects are positioned on the slide.

1. *Text Layouts*
   - **Title Slide.** It is the default layout for the first slide of a presentation which contains placeholders for a title and subtitle.
   - **Title Only.** It only contains a placeholder for a title and it is used when user wants to create a title slide with a customized layout.
   - **Title and Text Layout.** It contains placeholders for a title and a bulleted list of text. This layout is used when the items in the list are long.
   - **Title and two-column Layout.** It has placeholders for a title and two bulleted lists.
2. *Content Layouts*
   - **Blank.** This layout does not contain any placeholders and allows you to work completely from scratch.
   - **Content.** It contains one placeholder for a table, chart, clip art, picture, or media clip. It is used for large, important graphics.
   - **Title and Content.** Includes placeholders for a title and one table, chart, clip art, picture, etc.
   - **Title and Two Contents.** This layout allows user to place a title over 2 types of content (same or different).
3. *Text and Content Layouts*
   - **Title, Text and Content.** This layout is used to place a title over a bulleted list next to a picture, table, clip art, etc.
   - **Title, Text and Two Contents.** This layout includes placeholders for a title over a bulleted list to the left and 2 types of content to the right.
   - **Title and Text over Content.** It allows the user to place a title over a several-item bulleted list placed over a type of content.
   - **Title and 2 Text over Content.** It places a title over 2 types of content, with a several-item bulleted list underneath.

Or

(*a*) Explain the functions: 5

(*i*) PMT (*ii*) SUMIF

(*b*) What are the different types of View in PowerPoint? 5

Ans. (*a*) (*i*) PMT function computes the periodic payment required to amortize a loan over a specified number of periods and takes the form = PMT(rate,

nper, pv, fv, type), where rate is the interest rate; nper is the term (periods) of the investment; pv is the investment value today; fv is the investment value at the end of the term(0 if omitted); and type indicates when payments are made (0 or omitted = at end of period; 1 = at beginning of period). {fv Future value; nper Number of periods; pv Present value}

(*ii*) **SUMIF.** Syntax: =SUMIF(range,criteria,sum_range), where:
Range is the range of cells you want to evaluate.
Criteria is the criteria in the form of a number, expression, or text that defines which cells will be added.
Sum_range are the actual cells to sum.

(*b*) Different types of View in PowerPoint. There are three different ways that can be used to view the PowerPoint presentation. Open the presentation that we want to view as a slide show and do one of the following:

- Click **Slide Show** icon at the lower left of the PowerPoint window.
- On the **Slide Show** menu, click **View Show**.
- Press F5.

PART B

Q. 5. Write the Syntax used to calculate the Slope & Intercept in Regression analysis in MS-Excel. 7

Ans. The equation $y = a + bx$ algebraically describes a straight line for a set of data with one independent variable where x is the independent variable, y is the dependent variable, b represents the slope of the line, and a represents the y-intercept. Intercept function calculates the point at which a line will intersect the y-axis by using existing x-values and y-values. It takes the form =INTERCEPT (known_y's,known_x's); Known_y's is the dependent set of observations or data and Known_x's is the independent set of observations or data.

SLOPE function returns the slope of the linear regression line. The slope is defined as the vertical distance divided by the horizontal distance between any two points on the regression line.

The SLOPE function takes the form =SLOPE(known_y's, known_x's).

Q. 6. (*a*) Explain any *two* logical functions with examples in MS-Excel. 7

(*b*) Complete the table for the First Period of Loan and Lease statement for the following data. Write down the Formula in the appropriate cells: 7

	A	B	C	D	E
1	LOAN AMOUNT	5,00,000			
2	PERIOD	4 Years	48 Months		
3	RATE OF INTEREST	16% P.A.			
4	EFFECTIVE RATE OF INTEREST	?			
5	EMI	?			
6	PERIOD	Opening Balance	Interest	Instalment	Closing Balance
7	1	?	?	?	?

Ans. (*a*) Logical functions are used to test for specific conditions. These functions use logical operators to arrive at one of the two conclusions: TRUE or FALSE. The following functions are logical functions available in MS Excel:

I. **The IF Function.** It returns values based on supplied conditional tests, and takes the form

=IF(logical_test, value_if_true, value_if_false).

Other functions can also be nested within an IF function.

For example, the formula **= IF(SUM(A1:A10)>0, SUM(A1:A10),0)** returns the sum of A1 through A10 if the sum is greater than 0; otherwise, it returns 0.

II. **The AND, OR and NOT Functions.** Three additional functions help users to develop compound conditional tests: AND, OR and NOT. These help develop compound conditional test formulas in conjunction with the simple logical operators: =, >, <, >=, <= and <>.

AND. The AND function can have as many as 30 arguments and takes the form =AND(logical1, logical2, ...), where ***logicals*** can be conditional tests, arrays or references to cells that contain logical values. AND function returns the logical value TRUE only if *all* the conditional tests are true

OR. It takes the form =OR(logical1,logical2, ...), where ***logicals*** can be up to 30 conditional tests, arrays or references to cells that contain logical values. The OR function returns the logical value TRUE *if any one* of the conditional tests is true.

NOT. NOT function negates a condition and is usually used with other functions. NOT instructs Excel to return the logical value TRUE if the argument is false or the logical value FALSE if the argument is true.

The NOT function has only ***one argument*** and takes the form =NOT(logical), where ***logical*** can be a conditional test, an array or a reference to a cell containing a logical value.

(*b*) 1. Type in cell B4 = B3/12 and Press ***Enter***
2. Type in cell B5 = PMT(B4, C2, -B1) and Press ***Enter***
3. Type in cell B7 = B1
4. Type in cell C7 = B1 * B4
5. Type in cell D7 = B5
6. Type in cell E7 = B7 – (D7 – C7)

Or

(*a*) Differentiate between ROUNDUP and ROUNDDOWN function in MS-Excel with an example. **7**

(*b*) Write the formula in the following cells that returns the Principal Payment, Interest Payment and the EMI for the first month of a 4-year ₹2,00,000 loan at 16% p.a. interest: **7**

	A	B	C	D
1	LOAN AMOUNT	2,00,000		
2	PERIOD	4	YEARS	
3	RATE OF INTEREST	0.16	% P.A.	
4	PPMT	?		
5	IPMT	?		
6	PMT	?		

Ans. (*a*) ROUNDDOWN. It rounds numbers down to a specified number of decimal places and takes the same form and arguments as ROUND.

ROUNDUP function rounds a number up, away from 0 (zero). Its syntax is = ROUNDUP(number, num_digits), where Number is any real number that is to be rounded up. Num_digits is the number of digits to which number is to be rounded up. If num_digits is less than 0, then number is rounded up to the left of the decimal point.

For example,

= ROUNDUP(3.2, 0) rounds 3.2 up to zero decimal places and output is 4.

= ROUNDUP(76.9, 0) rounds 76.9 up to zero decimal places and output is 77.

= ROUNDUP(3.14159, 3) rounds 3.14159 up to three decimal places and output is 3.142.

= ROUNDUP(31415.92654, -2) rounds 31415.92654 up to 2 decimal places to the left of the decimal and answer is 31500.

ROUNDDOWN function rounds a number down toward zero. Its syntax is ROUNDDOWN(number,num_digits) where Number is any real number that is to be rounded down and Num_digits is the number of digits to which to round number.

For example,

= ROUNDDOWN (3.2, 0) Rounds 3.2 down to zero decimal places and answer is 3.

= ROUNDDOWN (76.9,0) Rounds 76.9 down to zero decimal places and the output is 76.

= ROUNDDOWN (3.14159, 3) Rounds 3.14159 down to three decimal places and the output is 3.141.

= ROUNDDOWN (31415.92654, -2) Rounds 31415.92654 down to 2 decimal places to the left of the decimal and answer is 31400.

(*b*)(1) Type in cell B4 = PPMT (B3/12, B2 * 12, 1, -B1)

(2) Type in cell B5 = IPMT (B3/12, B2 * 12, 1, -B1)

(3) Type in cell B6 = PMT (B3/12, B2 * 12, -B1)

Q. 7. (*a*) Explain the procedure how to move or copy a formula in an Excel sheet. 7

(*b*) Write the formula for DA, HRA, BONUS and GROSS SALARY in C2, D2, E2, and F2 respectively to prepare the generalized Payroll statement in an Excel Sheet from the following data: 7

Employees are entitled to Basic, DA, HRA and BONUS:

- DA is payable @ 17% on Basic.
- HRA paid is ₹3300 for Basic < 15000 and ₹5500 for others.
- Bonus is payable @ 8.33% of (Basic plus DA).

	A	B	C	D	E	F
1	EMPLOYEE	BASIC SALARY	DA	HRA	BONUS	GROSS SALARY
2	ASHOK	10,000				
3	KHAN	20,000				
4	KULDEEP	30,000				

Ans. (*a*) ***To move or copy a formula in an Excel sheet:***

(*i*) Double-click the cell that contains the data that to move or copy. By default, user can edit and select cell data directly in the cell by double-clicking it, but user can also edit and select cell data in the formula bar (formula bar: A bar at the top of the Excel window that you use to enter or edit values or formulas in cells or charts. Displays the constant value or formula stored in the active cell.).

(*ii*) In the cell, select the characters to move or copy.

(*iii*) On the **Home** tab, in the **Clipboard** group, click **Copy** Or User can also press CTRL+C

(*iv*) Select the upper-left cell of the paste area or the cell where to paste the formula.

(*v*) On the Home tab, in the Clipboard group, click the arrow below Paste and then click Formulas.

If the copied formulas contain relative cell references, Excel adjusts the references (and the relative parts of mixed cell references) in the duplicate formulas.

For example, suppose that cell B8 contains the formula = SUM (B1 : B7). If we copy the formula to cell C8, the duplicate formula refers to the corresponding cells in that column: = SUM (C1 : C7). If the copied formulas contain absolute cell references (absolute cell reference: In a formula, the exact address of a cell, regardless of the position of the cell that contains the formula. An absolute cell reference takes the form $A$1.), the references in the duplicate formulas are not changed. If we do not get the results that we want, we can also change the references in the original formulas to either relative or absolute cell references and then recopy the cells.

(*b*) (*i*) **Dearness Allowance (DA).** Type in Cell C2 = 17% * B2 press enter. Copy and paste the formula in the C column.

(*ii*) **HRA.** Type in Cell D2 = if(B2<15000, 3300, 5500) press enter. Copy and paste the formula in the D column.

(*iii*) **Bonus.** Type in Cell E2 = 8.33% * (B2 + C2) press enter. Copy and paste the formula in the E column.

(*iv*) **Gross Salary.** Type in Cell F2 = sum (C2 : E2) press enter. Copy and paste the formula in the F column.

Or

(*a*) Explain the procedure to represent data through Graph in MS-Excel. 7

(*b*) Write the FORMULA to calculate the Current ratio and Quick ratio in appropriate cells in MS-Excel from the following data: 7

	A	B	C	D
1	*Liabilities*	*Amount*	*Assets*	*Amount*
2	Equity Share Capital	60,000	Goodwill	25,000
3	Debentures	25,000	Machinery	55,000
4	Sundry Creditors	10,000	Stock	15,000
5	Unclaimed Dividend	5,000	Cash	5,000
6	Total	1,00,000	Total	1,00,000
7	Current Ratio	?	Quick Ratio	?

Ans. (*a*) ***Steps to create a graph in MS Excel:***

(*i*) Make sure the data on worksheet is arranged properly for the type of chart to be used.

(*ii*) Select the cells that contain the data to use for the chart.

(*iii*) Click **Chart Wizard** and follow the instructions in the Chart Wizard, *viz.*,

- choosing a Chart Type
- specifying the Data to Plot
- choosing Chart Options such as specifying Chart and Axis Titles, displaying or hiding Axes Category, displaying or hiding a Legend, displaying Data Labels, adding a Data Table, etc.
- telling Excel where to put the Chart.

(*b*) **Current ratio.** B7 = (D4 + D5)/(B4 + B5)

Quick ratio. B11 = (D5)/(B4 + B5)