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*. Give reason: 5×2=10

(*a*) ATMs are Computers.

(*b*) Translators are not required for "High Level languages".

(*c*) Computers using Decimal numbers are faster.

(*d*) DBMS stores variety of data related to an accounting system.

(*e*) Page orientation cannot be changed in MS-Word.

Ans. (*a*) *False*. ATMs (automated teller machine) are electronic telecommunication devices that enable the customers of a financial institution to perform financial transactions, particularly cash withdrawals, without the need for a human cashier, clerk or bank teller.

(*b*) *False*. Translators are required to convert a program written in a high level language into machine language.

(*c*) *False*. Computers using binary number system are faster.

(*d*) *True*. DBMS stores variety of data related forms, reports, etc.

(*e*) *False*. Page orientation can be changed to Portrait or Landscape in MS-Word.

Q. 2. (*a*) What are External Storage Devices? Explain any *two* which are very popular. 5

(*b*) What are the difficulties in using audit softwares. 5

Ans. (*a*) **External Storage Devices.** External storage comprises devices that temporarily store information in a computer system. Such devices are not permanently fixed inside a computer. They are also called auxiliary or secondary storage devices. They provide backup storage for instructions (software programs) and data. Most commonly used secondary memory devices are hard disks, magnetic disks, and magnetic tapes. Secondary storage devices are less expensive as compared to primary storage devices. However, they have much larger storage capacity than primary memory. Instructions and data stored on secondary storage devices are permanent in nature. It can only be removed if the user wants it so or the device is destroyed.

(*i*) **Hard disk.** A hard disk is a data storage device used for storing and retrieving digital information using one or more rigid rapidly rotating disks (platters) coated with magnetic material. The platters are paired with magnetic heads arranged on a moving actuator arm, which read and write data to the platter surfaces. Data is accessed in a random-access manner, meaning that individual blocks of data can be stored or retrieved in any order rather than sequentially. An HDD retains its data even when powered off.

(*ii*) **Optical storage.** Optical storage is the media that use laser light technology for data storage and retrieval.

For example, CD (Compact Disc), DVD (Digital Versatile Disc), etc. The speed of optical drive is much less than a hard disk. The storage capacity of CD is 700 MB. It can be CD-ROM (Compact Disc Read Only Memory) or CD-R, CD-RW. DVD is much faster than CD but not as fast as a hard disk. The standard DVD-5 technology has a storage capacity of 4.7 GB.

(b) Difficulties in using Audit Software. See Q. 3, Unit V. [Page 57

Or

(a) What is software and how it is useful for computer operation? 5

(b) What are CAAT tools and their types? 5

Ans. (a) Software and its uses. Software is a sequence of instructions written in a language that can be understood by a computer. The term software refers to a set of computer programs, and associated documents that describe the program and how they are to be used. To get a particular job done by a computer, the relevant software should be loaded in the hardware before processing starts. It includes the programs that control the processing activity of the computer. Mostly software can be classified into two major categories: **System software** and **Application software.**

System Software is a set of one or more programs designed to control the operation and extend the processing capability of a computer. It contributes to the control and performance of the computer system and permits the user to use the system more conveniently. System software is transparent and less noticed by a typical user.

System software comprises programs written in low-level languages, which interact with the hardware at a very basic level. They are the basic necessity of a computer system for its proper functioning. System software serves as the interface between hardware and the end users. System software not only controls the hardware but also provides a platform for other programs to run on them.

All the programs which can be a part of **System software can be classified into three categories:**

- Operating System
- Programming Languages (*viz.*, assembler, translator, interpreter, compiler, loader and linker).
- Utility Programs.

Application software (also called End User Program) includes User oriented programs designed and developed for performing specific tasks such as payroll accounting, financial accounting, etc. It is a set of one or more programs designed to solve a specific problem or do a specific task.

There are many types of application software available for a wide range of applications such as inventory management, preparation of tax return, banking, hospital administration, insurance, etc. Some most common are word-processing software, spread sheet software, database software, graphics software, personal assistance software, education software and entertainment software.

(b) See Q. 1, Unit V. [Page 56

Q. 3. (a) What is the difference between copying and moving a block of text in MS-Excel? 5

(b) Differentiate between Absolute, Relative and Mixed cell referencing in MS-Excel with suitable example. 5

Ans. (*a*) In MS Excel, a user can use the Cut, Copy, and Paste commands in Microsoft Office Excel to move or copy entire cells or their contents.

- When cells are copied the data and/or formulae are replicated whereas in case of moving the data, the original data is cut and moved to new cells.
- When cells are copied, cell references are automatically adjusted. When cells are moved, cell references are not adjusted, and the contents of those cells and of any cells that point to them may be displayed as reference errors.
- Moving data and files whether it is a block of text in your word processor or a folder on your hard drive, transfer something completely from one point to another. Once the move command is used, the original content is gone from the original location. Copying a file, folder or piece of text means duplicating it. It appears in its new location and remains in the old one too.

(*b*) See Q. 3(*Or*)(*b*), 2014. [Page 95

Or

(*a*) What is the difference between 'Replace' And 'Replace All' in 'Find And Replace' operation in MS-Word? 5

(*b*) Explain any *three* logical functions used in MS-Excel? 5

Ans. (*a*) **Replace and Replace All in MS Word.** *Find* And *Replace* operation automatically replaces a word or phrase with another. *For example*, a user can replace **s/w** with **Software**. The replacement text uses the same capitalization as the text that it replaces unless user selects the **Match case** check box.

Replace option replaces one occurrence of the text at a time whereas ***Replace All*** option replaces all the occurrences of the text simultaneously.

(*b*) *Logical functions in MS Excel.* See Q. 6(*a*), 2014. [Page 86

Q. 4. (*a*) How can you insert audio clip in a PowerPoint presentation? 5

(*b*) Explain the font as formatting features in MS-Excel. 5

Ans. (*a*) ***Steps to insert audio clip in PowerPoint Presentation:***

1. *Click* the slide to add an audio clip.
2. On the Insert tab, in the Media group, *click* Audio.
3. *Click* Audio from File, locate the folder that contains the file, and then *double-click* the file that is to be added.

(*b*) Formatting Font in MS Excel.

To change the font or font size in a worksheet:

1. *Select* the cell, range of cells, text or characters to format.
2. On the Home tab, in the Font group:
   (*i*) *Click* the required font in the Font box to change the font.
   (*ii*) To change the font size, *click* the required font size in the Font Size box, or *click* Increase Font Size Button image or Decrease Font Size Button image until the desired font size is displayed in the Font Size box.

Or

(*a*) How animation is useful in the context of slide show? 5

(*b*) What functions are used for regression analysis? Illustrate with syntax. 5

Ans. (*a*) **Usefulness of animation in slide show.** Animation can help make a

Microsoft PowerPoint presentation more dynamic, and help make information more memorable. The most common types of animation effects include entrances and exits. The user can also add sound to increase the intensity of the animation effects.

Many presentation experts recommend using animations and sound effects sparingly. Animation can be useful in making a presentation more lively, and help to emphasize points, but too much animation can be distracting.

(*b*) Functions used for regression analysis:

Excel includes several array functions for performing linear regression – LINEST, TREND, FORECAST, SLOPE and STEYX, and exponential regression – LOGEST and GROWTH.

SLOPE. The 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*).

TREND. TREND function finds points that lie along the regression line for given data. The numbers returned by TREND function can be used to plot a trend line. TREND function can be used to extrapolate, or make intelligent guesses about, future data based on the tendencies exhibited by known data. Syntax of TREND function =TREND(*known_y's, known_x's, new_x's, const*).

PART B

Q. 5. Give example of any *three* mathematical functions with syntax. **5**

Ans. ***Mathematical Functions:***

(*i*) SUM. Sum function totals a series of numbers and takes the form =SUM(num1,num2, ...), where *nums* (max 30) can be numbers, formulas, ranges, or cell references. It ignores arguments that refer to text values, logical values or blank cells.

(*ii*) SUMIF. Sumif function tests each cell in a range before adding it to the total. It takes the form =SUMIF(range, criteria, sum_range), where *range* is the range to test; *criteria* is the logical test to be performed on each cell; and *sum_range* specifies the cells to be summed up.

(*iii*) COUNTIF. Countif function counts only those cells that match the specified criteria and it takes the form =COUNTIF(range, criteria), where *range* is the range to be tested and *criteria* is the logical test to be performed on each cell.

Q. 6. (*a*) Write syntax of different formula to find Maximum, Minimum, and Sum of given numbers. **5**

(*b*) A person takes the loan on following terms:

- Loan amount — ₹35,00,000
- Rate of Interest — 19.25% p.a
- Loan period — 4 years (48 instalments, *i.e.*, Mode of payment-Monthly)

Show the required sheet in MS-EXCEL. Also write appropriate formula in MS-EXCEL to compute the EMI and interest amount for the 45th instalment. **10**

Ans. (*a*) Syntax

(*i*) Maximum: =Max(num1,num2, ...)

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Ans. (a) Syntax

(i) Maximum: =Max(num1,num2, ...)

(ii) Minimum: =Min(num1,num2, ...)

(iii) Sum: =SUM(num1,num2, ...)

(b) Excel Sheet:

	A	B	C
1	Loan Amount	₹35,00,000.00	
2	Rate	19.25%	p.a.
3	Loan Period	4	years
4	Mode	Monthly	

Formula:

(i) EMI =PMT(19.25%/12,4*12,-3500000)

(ii) Interest =IPMT(19.25%/12,45,4*12,-3500000)

Or

(a) How can you insert, delete worksheet in a work book? 5

(b) 10 known X values are shown in cells A2 TO A11 and corresponding known Y values are shown in cells B2 TO B11. Write syntax to find slope in cell D2 and intercept in cell D3. Write the appropriate formula to compute estimated y values in cell C2 TO C11. 11

Ans. (a) Insert and delete a worksheet. By default, Microsoft Office Excel provides three worksheets in a workbook to insert additional worksheets (and other types of sheets, such as a chart sheet, macro sheet, or dialog sheet) or delete them as needed. To insert a new worksheet at the end of the existing worksheets, *click* the Insert Worksheet tab at the bottom of the screen. To insert a new worksheet in front of an existing worksheet, *select* that worksheet and then, on the Home tab, in the Cells group, *click* Insert, and then *click* Insert Sheet. Also the user can *right-click* the tab of an existing worksheet, and then *click* Insert. On the General tab, *click* Worksheet, and then *click* OK. To delete one or more worksheets, select the worksheet or worksheets that are to be deleted, then on the Home tab, in the Cells group, *click* the arrow next to Delete, and then *click* Delete Sheet. Also the user can *right-click* the sheet tab of a worksheet or a sheet tab of any selected worksheets that is/are to be deleted, and then *click* Delete.

(b) Type in D2=SLOPE(B2:B11,A2:A11)

Type in D3=INTERCEPT(B2:B11,A2:A11)

Type in C2=$D$3+$D$2*A2 and copy the formula from cell C3 to cell C11.

Q. 7. (a) Explain uses of two financial functions available in MS-EXCEL. 5

(b) Payroll sheet for X LTD is prepared in MS-EXCEL as below:

	A	B	C	D	E	F	G	H
1	Employee Name	Category	Basic Pay	Grade Pay	DA	HRA	TA	Gross Earnings
2	Rahul	A	8,000					
3	Manoj	B	9,000					
4	Sunil	A	15,000					
5	Rajan	C	7,000					
6	Total							

Write the Appropriate Functions and Formulas in Cells D2 to H2:

(i) Grade Pay @ 50% of Basic Pay.

(ii) To Calculate the DA @ 35% of Basic Pay when Pay is less than ₹8000 and @ 27% for others.

(iii) TA ₹1,500, ₹2,500 and ₹3,500 for Employees Category A, B and C respectively.

(iv) HRA @ 25% of Basic+Grade Pay with Maximum of ₹5,000. **10**

Ans. (a) **Financial Functions:**

(i) **PMT.** It 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) **PPMT.** It computes the principal component of an individual payment made to repay a loan over a specified time period with constant periodic payments and a constant interest rate, and takes the form **=PPMT(rate, period, nper, pv, fv, type)**, where *rate* is the interest rate; *period* is the number of an individual periodic payment; *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; and *type* indicates when payments are made (0 or omitted = at end of period; 1 = at beginning of period).

(b) (i) **Grade Pay.** Type in Cell D2=50%*C2 press enter.
Copy and paste the formula in the D column.

(ii) **DA.** Type in Cell E2=(if(C2<8000,35%*B2,27%B2) press ***Enter***.
Copy and paste the formula in the E column.

(iii) **TA.** Type in Cell G2=if(B2="A",1500,if(B2="B",2500,3500) press ***Enter***.
Copy and paste the formula in the G column.

(iv) **HRA.** Type in Cell F2=min(5000,25%*(C2+D2) press ***Enter***.
Copy and paste the formula in the F column.

Or

(a) What are the functions used to estimate the future trend from given values? **5**

(b) Show as in a MS-EXCEL sheet:

50 random numbers in range A1:15. Show syntax for calculating Maximum, Minimum, Sum, Count, Average, Mode and Standard Deviation in cells C7 to C13. **10**

Ans. (a) Trend Function is used to estimate the future trend from given values. The TREND Function returns values along a linear trend. It fits a straight line (using the method of least squares) to the arrays known_y's and known_x's and returns the y-values along that line for the array of specified new_x's. It takes the form =TREND(*known_y's, known_x's, new_x's, const*). *Known_y's* is the set of y-values that are already known in the relationship y = mx + b.

This argument can be a single column, a single row, or a rectangular range of cells. *Known_x's* is an optional set of x-values that you may already know in the relationship y = mx + b.

The third and fourth arguments are optional. *New_x's* are new x-values for which you want TREND to return corresponding y-values.

Const is a logical value specifying whether to force the constant b to equal 0. If *Const* is TRUE or omitted, b is calculated normally. If *Const* is FALSE, b is set equal to 0 (zero), and the m-values are adjusted so that y = mx.

(*b*) (*i*) To generate 50 Random numbers, type in A1=rand() and copy it from A1 to J5.

(*ii*) Maximum: Type in C7=max(A1:J5)

(*iii*) Sum: Type in C8=sum(A1:J5)

(*iv*) Minimum: Type in C9=min(A1:J5)

(*v*) Count: Type in C10=count(A1:J5)

(*vi*) Average: Type in C11=average(A1:J5)

(*vii*) Mode: Type in C12=mode(A1:J5)

(*viii*) Standard deviation: Type in C13=stdev(A1:J5)

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