Class IX

# ANSWER KEY

## Information Technology

Part-B: Subject Specific Skills

# 1. Introduction to IT & ITeS

Unit 1: Introduction to IT-ITeS Industry

## Unsolved Exercise

### Section A

**A.** 1. iv 2. iii 3. iv 4. i 5. i

**B.** 1. On-line chatting 2. Telemedicine 3. ERP 4. Satellites 5. Social Networking

### Section B

**A.** 1. Following are the types of BPO Services.

**Customer Support Services:** These services are related to giving information to clients by responding through Chatbot, Voice, e-Mail, Chats, etc. Such customer support centers operate 24x7 throughout the year. Examples include, resolving customer queries related to travel, order status, product information, grievance handling, etc.

**Technical Support Services:** These types of BPO services provide technical knowledge at the outsourced centre to resolve customer queries pertaining to computer hardware, software, peripherals and the internet. The queries handled include online training for user registration, to recover password, installation, product support, troubleshooting and usage support. For example: if a customer is unable to install an application into his computer, it is the online technician who troubleshoots the issue.

**Data-Entry Services:** These type of BPO services include entering data at a fast pace taking care to maintain a high degree of accuracy. For example: maintaining data related to sales, data entry of student details, data entry of voters, mortgage, etc.

**Accounting Services:** These types of BPOs include services related to maintaining general ledger, financial statements, balance-sheets, bank reconciliation statements, assets and liabilities, etc.

**Online Services:** Such BPO services include online sales and purchases, e-booking, e-ticketing, etc.

2. Computers facilitate the criminal identification and law enforcement departments in:

- **Tracking:** The location of suspicious person or accused can now be tracked through their mobile phone signals.



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- **Digital Criminal Record:** The criminal investigation departments are now able to maintain the records of each criminal digitally in computer. Police stations do not have to send huge paper files to Police Headquarters for any analysis as all crime records are electronically stored in their central computers (server) which can be accessed from anywhere with proper authentication.
- **Analysis:** The criminal investigation departments do comparative analysis of nature of crimes in each state and watch trend on different crimes through software generated statistics on computer.
- **DNA Test:** This is a form of examination of hair sample, blood sample, etc. by the use of computer technology to identify people associated with a criminal case.
- **Immigration Records:** There are a large number of foreign nationals and non-residents travel to a country every year. The Immigration departments maintain passport and visa records of all these visitors on computers and accordingly monitor their entry and exit from the country.

3. Computers have enhanced the way in which museums and libraries are accessed.
   - **Tracking of Resources:** The updated records are fed in computers and visitors can trace their requirements or areas of interest themselves from user terminals located in libraries and museums.
   - **Digital Historical Data:** Records of objects in the museum like the discovery date, location of excavation, relevance of that object in the historic times and other such details which may interest the visitors are electronically maintained.
   - **Book Issue Records:** Records of issue, renewing and return of books and CDs are maintained with more accuracy in libraries.
   - **Indexing:** Instead of searching different shelves of the library for a particular book, one can speedily search the shelf it is in with data recorded in computer.
   - **Online Access of Books:** One can read e-Books, newspapers, journals, research papers in soft copy version.
4. Computer science has led to the development of artificial intelligence in the form of robotics which is concerned with design, construction, and operation of robots that can substitute for humans and replicate human actions.
5. Outsourcing is usually defined as "The process of an organization entering into a contract with another organization to operate and manage one or more of its operations or functions of the parent company".
6. The opportunities in I.T. industries can be broadly classified into:
   - Software Development
   - I.T. Application
   - I.T. enabled Services (ITES)

7. It is computer-based examination system (paperless examination) that has completely automated the old manual procedure of conducting exams as the tests are taken on computers online. Examination data can be stored conveniently in a very less space and it also takes less time for evaluation.
8. It enables the user at different locations to hold face-to-face meetings without moving to a single location together with the help of computers and Internet.
9. • **Telemedicine:** The information technology and telecommunication are now used to provide health care to people living in far off distance.
   - **Computer Controlled Medical Devices:** The diagnosis of diseases are now possible with the computer-controlled devices like ultrasonography, CT scan, X-rays, ECG, etc.
   - **Computerization of Hospital Management System:** Hospitals are using computers to maintained Real time data on bed availability, doctors and other staff on duty, generation of accurate bills of patients, etc.
   - **Digital Patient Records:** Medical records of patients are maintained electronically for quick reference and access instead of being archived in paper files like in the past.
   - **Computerized Labs:** Today, Modern diagnostic laboratories have computerized devices to test samples and infer accurate results.
   - **Computerized Pharmacies:** Computers are now able to check vital details like composition of medicines, expiry dates, inventory, etc. in pharmacies.
10. In modern warfare, computers analyze pictures taken from satellites for tracking enemy movements. Many technologies like GPS (Global Positioning System) and the Internet were initially created or started for the defense services. Computers are an important aspect of the defense industry. Advanced IT tools facilitates:
    - **Design of Weapons:** Computers are now helping in designing new and advanced forms of weapons.
    - **Coding, Decoding and Transmission of Confidential Messages:** There are certain confidential information related to security of the nation which requires extreme secrecy in delivery. These confidential information and classified files are now transmitted in the form of encrypted messages and with multiple levels of coding using specialized computer software and the same is decoded at the receiving end using proper authentication and decoding software.
    - **Identification:** The pictures of enemy troop movements are taken through satellites and plotted using computers thus identifying the exact enemy locations.
    - **Simulation:** Missile operations are first tested or simulated on computers before the final implementation.

**B.** 1. Insurance services, Customer Care Support services

2. • UMANG app
   - mParivahan app
   - MyGov app
   - MADAD app

- BHIM UPI app
- mAadhaar app
- Aarogya Setu app
- GST rate Finder app
- mPassport app
- DigiLocker app

# 2. Data Entry & Keyboard Skills



## Unsolved Exercise

### Section A

**A.** 1. iv 2. i 3. iv 4. i 5. iii

**B.** 1. Words Per Minute (WPM) 2. Arrow keys 3. Ctrl 4. Function 5. Keyboards

**C.** 1. False 2. False 3. True 4. False 5. False

### Section B

**A.** 1. Following are the different types of keys:

- **Alphabet Keys:** There are 26 Alphabet keys (A–Z) on a keyboard that help to type letters.
- **Number Keys:** There are ten (10) Numeric keys (0–9) on a keyboard. They help to type numbers.
- **Function Keys:** These keys lie on the upper side of a keyboard (above the Number keys). They are labelled as F1, F2, ..... F12.
- **Arrow Keys:** Arrow keys are the direction keys which moves arrows in different directions i.e., Up, Down, Left and Right. These keys are useful when one has to move the cursor across the screen.
- **Enter Keys:** It is labelled with 'Enter ↵'. It is one of the most commonly used key of the keyboard. On a desktop keyboard, this key is placed in the middle as well as at the bottom right corner of the keyboard. It helps to move the cursor to the next line and to execute any instruction after typing.
- **Escape (Esc) Key:** It is labelled with 'Esc'. It is placed on the upper side at the left corner of the keyboard.
- **Spacebar Key:** It lies at the bottom of the keyboard. It helps to give space (gap) between two letters or words.
- **Shift Key:** This key is labelled with 'Shift' and an arrow pointing in the upward direction. There are two such keys, one at the left side of the keyboard and the other below the 'Enter' key. It is used to type in capital letters or to type special characters.
- **Ctrl key:** This key is used in conjunction with other keys of the keyboard to produce control characters or instructions. Alt key is like a second control key.
- **Caps Lock Key:** This key is labelled with 'Caps Lock'. It lies on the left side of the keyboard.

It helps to type the alphabet in 'Capital' letter when 'ON' and in small letter when 'OFF'.

- **Backspace Key:** This key is labelled with 'Backspace' or with a left arrow. When pressed, it erases the character which are present on the left side of the cursor.
- **Delete Key:** This key is used to erase the characters. When pressed, it erases the character present on the right side of the cursor.

2. i. Tab ii. Start the lesson iii. Restart the lesson
   iv. Student toolbar
3. Correct position of the hands and body while typing:
   - The chair and table height should be such that the shoulder, arm, and wrist muscles are free from any strain.
   - The wrists can touch the tabletop. However, do not put even a small portion of your body weight to your wrists.
4. It lies above the virtual keypad. It displays the lesson length, progress of the lesson and sound controller. Status Bar consists of two progress bar:
   - Green progress bar shows the percentage of completion of the current lesson.
   - Yellow Progress Bar reflects the acceptable time for typing a character. When Yellow progress bar runs out, it is recorded as a 'Slowdown' mistake.
5. It is a way to check the accuracy, speed, slow keystrokes, common error, etc. in a single window. Each time the typist completes a lesson, the Results window displays the achievements in that lesson and offers a range of further action. It consist of 'Next step', 'Detailed statistics', 'Error overview' tab.

   **Next step:** Next step tab suggests options for the next step viz. 'Go to the next lesson' and 'Try again' after comparing results with Course goals in the Course options. If the typist has performed well in all the three parameters; viz., speed, accuracy and time-out, the software suggests for going to the next lesson.

   **Detailed statistics:** On the second tab, one can see the lesson statistics in detail along with the typing speed and errors / slowdowns for each character / keystroke in the following manner:

   - The green dashed line in the diagram shows good and bad results; the good results appear above the line.
   - If the result is bad; the column is red, if the result is good; the column is green.
   - In keystroke diagrams; the key names are of the same colour as that of the finger zone.

   **Errors overview:** On the third tab, one can check the errors that occurred during the typing lesson.

   The letters in different colours indicate the following:

   - Green indicates correct character.

- Yellow colour is an indication that the time frame of typing has been exceeded.
- Red indicates incorrect character.
- Orange indicates both incorrect character as well as exceeding of the time frame.

6. The letters in different colours indicate the following:
   - Green indicates correct character.
   - Yellow colour is an indication that the time frame of typing has been exceeded.
   - Red indicates incorrect character.
   - Orange indicates both incorrect character as well as exceeding of the time frame.
7. i. It is a type of on-screen keypad which helps to learn typing with all the ten fingers.
   ii. Lesson controlled section allows the user to start/suspend the current lesson, restart from the begining and monitor the current speed, accuracy and time elapsed in real-time.
   iii. 'Overall Rating' is evaluated on the basis of speed, accuracy and slowdown keystrokes. It is displayed with the help of indicator which ranges from 'Could be better' to 'Excellent'. Indicator colours have significance which varies with the change of range.
8. i. 'F' and 'J' keys are called Guide keys. They contain a small raised tangible mark to help the typist to place their fingers correctly on the Home keys. Alphabets ASDF are home keys for the left hand and ; (semi-colon) LKJ for the right hand.
   ii. Enter, Arrows, Shift, Spacebar.
9. **Typing Ergonomics** is the science of preventing common injuries by using proper posture and stretching techniques when working on a computer.

   Some of the key points of typing ergonomics are:
   - The ideal typing posture is such that the keyboard is below the elbow height when seated, with the wrists straight and not planted on the surface of the desk.
   - The right sitting position involves:
     - Resting the back against the chair for maximum support.
     - Resting the feet flat on the floor or on a footrest.
     - Looking straight ahead without leaning forward.
     - The top of the monitor must be at the same level or slightly below the horizontal eye level.
     - Positioning the knees at the same level or slightly lower than the thighs.
     - Relaxing the shoulders.
   - Avoid pounding on the keys and do not exert more force than is necessary.
   - Take short breaks every thirty minutes and move around.
10. The text panel of lesson editor is used to edit, modify, insert and delete the selected lesson.

**B.** 1. Toolbar.

2. Yashika can use Errors Overview tab of Result Interpretation window for the purpose.

# 3. Digital Documentation: Word Processor



## Unsolved Exercise

### Section A

**A.** 1. iv 2. iii 3. i 4. ii 5. iii
6. iii 7. ii 8. iv 9. iii 10. ii

**B.** 1. Ruler 2. .docx 3. AutoCorrect 4. Insertion point 5. Selecting Text

### Section B

**A.** 1. A word processing package is a kind of software that provides page layout, enables typing of text to create documents and also helps in editing, formatting, modifying, printing and storing the contents of the document. Preparing a written work or document can be created in a much organised way and will be easily handled when typed in a computer with the help of a 'Word Processing' package.

2. It refers to the active document where text is typed. It is the workspace where a user can type text at the cursor point. The blinking vertical line (which looks like 'I') in a document is known as the insertion point or cursor.

3. Characters like alphabet, number, special characters are visible on the screen while typing but whenever 'Enter' key, 'Tab' key, 'Spacebar' key, etc. is pressed, it does not represent a written symbol or part of the text within a document, but rather used for defined action. Such character which is non printable in nature is known as non-printing character . To display non-printing character: **Press Ctrl + * OR Ctrl + Shift + 8 keys**.

4. It is a facility in Word that enables to automatically check each word as it is typed and displays a red wavy line under the mis-spelt words. When the word is corrected, the red wavy line disappears.

5. **Undo** is an option that helps to retrieve (bring back) previously made modifications in a document or reverse the previous action or a series of actions.

   The **Redo** command helps to reverse the changes which were applied by Undo. It cancels the Undo action.

6. OpenOffice Writer, AbiWord, WordPerfect, Lyx, KWord, Microsoft Word

7. i. **OLE:** In a word processor, there is an Object Linking and Embedding feature that helps to link or embed various objects in a document from other applications. These objects can be charts, equations, clip arts, pictures, etc.

   ii. **Insertion Point:** In workspace where a user can type text, The blinking vertical line (which looks like 'I') in a document is known as the insertion point or cursor.

iii. **Clipboard:** Clipboard is a temporary storage area that stores the object which has been cut or copied for future use. Whenever one uses the 'Paste' option the object from the 'Clipboard' is retrieved by that application.

8. i. Entire Document: Ctrl+A
   ii. Paragraph:Ctrl+Shift+Down/Up
   iii. Line: Shift+Down/Up
9. A user can easily switch from one page to other page of a document instantly in a word processor to view or edit it. This is called navigation.

**B.** 1. Mail merge 2. Ctrl + C

# 4. Formatting in Work Processor



## Unsolved Exercise

### Section A

**A.** 1. i 2. i 3. i 4. iv 5. iii
6. iv

**B.** 1. Indent 2. Left 3. merged 4. split 5. portrait

### Section B

**A.** 1. Character Formatting includes manipulation of size, style, colour, position and attributes of character. The various character formatting options are present in the **Font** group under the **Home** tab.

Select the formatting options as required, in the following ways:

**To Change the Font Type:**

**Step 1:** Select the character, word or block of text which is to be formatted.

**Step 2:** Click on the drop-down arrow of the Font list.

**Step 3:** Click on a font type from the list.

**To Change the Font Size:**

**Step 1:** Select the character, word or block of text which is to be formatted.

**Step 2:** Click on the drop-down arrow of the Font Size list.

**Step 3:** Click on a font size from the list.

**To Change the Font Color:**

**Step 1:** Select the character, word or block of text which is to be formatted.

**Step 2:** Click on the drop-down arrow of the Font Color list.

**Step 3:** Click on a font color from the list.

2. Margin is the gap between the edge and beginning of text i.e., the outer boundary of the text in a document beyond which the contents of the document do not flow. Normally, in a document, the default margins are 2.5 cm each on the top and bottom as well as on the left and right.
   - **Left margin:** The space between the text and the left edge of the page is referred as the 'Left margin'.
   - **Right margin:** The space between the text and the right edge of the page is referred as the 'Right margin'.
   - **Top margin:** The space between the text and the top edge of the page is referred as the 'Top margin'.
   - **Bottom margin:** The space between the text and the bottom edge of the page is referred as the 'Bottom margin'.
3. Line spacing is the vertical gap between different lines of text in a paragraph. It is measured in lines or in points. It can be set to single spacing, 1.5 lines spacing, Double spacing etc.

   Different options of Line spacing are:
   - **Single:** It provides single line spacing, according to the point size of the font. It is the default line spacing that exists in a normal document.
   - **1.5 lines:** It provides one and a half line size spacing, according to the point size of the font.
   - **Double:** It provides double line spacing, according to the point size of the font.
   - **At least:** It sets minimum spacing between the lines. This option is useful if there are fonts and lines of different sizes in the paragraph.
   - **Exactly:** It sets the exact spacing between the lines irrespective of the fonts and lines of different sizes in the paragraph.
   - **Multiple:** It provides multiple times line spacing, depending upon the factor defined by the user.
4. Indent is the space (gap) of text (a line or paragraph) from the edge/margin of the page. The margin settings are applied to the whole document or the text area but indentation sets the space of a paragraph from the margin with respect to the rest of text that is below or above it.
5. i.
   - **Superscript:** It raises the text above the baseline and decreases the font size, eg.: $a^2 + b^2$
   - **Subscript:** It lowers the text below the baseline and decreases the font size, eg.: $H_2O$

ii.
   - **Merging Cells:** Combining two or more adjacent cells in the same row or column is known as merging of cells. Cells are merged when a common heading is to be given to two or more different columns. For example, if you want to give a common heading "Number of Students" to all the three columns containing number of students.

- **Splitting Cells:** Division of cells into two or more sub-cells is known as splitting of cells. It is exactly the opposite of merging cells. The text of the original cell appears in the first cell of the split cells.

6. i. Text Alignment is the layout of the text in a paragraph with respect to the page margins i.e. the position of the text in a paragraph, with respect to different margins of the document.

   ii. Kerning means to adjust space between two specific characters, thus the term kerning pair. Most often, kerning implies a reduction of space, but it can also mean the addition of space. Kern pairs are created to improve the spacing between two letters when the normal spacing is less than ideal.

   iii. Paragraph spacing is the space or the gap between two paragraphs. Space can be specified in lines or in points.

   iv. A table is a grid of boxes framed by horizontally aligned rows and vertically aligned columns that help to organize data.

7. There are four types of alignment: left, right, center and justified.
8. By default, header or footer is printed at 0.5" gap from the edge of the page.
9. **Step 1:** Place the cursor where you want to add page break.

   **Step 2:** Click on the **Insert** tab.

   **Step 3:** Click on **Page Brea**k command from **Pages** group. Contents are divided into two pages from the cursor point of separation.

10. Find & Replace is suitable for this. Shortcut command is: Ctrl+H.

**B.** 1. Tables 2. Footer

# 5. Mail Merge



## Unsolved Exercise

### Section A

**A.** 1. iv 2. ii 3. ii 4. ii 5. iv
6. ii 7. iii 8. iii 9. i

**B.** 1. Mail Merge 2. Track changes 3. red
4. mailing 5. F4

### Section B

A. 1. Mail Merge is a feature of Word processor like **Word**, in which names and addresses of different recipients are merged in one file and each pair of name and address is merged with a copy of particular letter by itself, so that the same letter is addressed to different recipients.

**Steps:**

**Step 1:** Type the invitation which is to be sent to everyone.

**Step 2:** Click on **Mailings** tab.

**Step 3:** Click on **Start Mail Merge** command in **Start Mail Merge** group. This will open a drop-down list of various options.

**Step 4:** Click on **Letters**.

**Step 5:** Click on Select Recipients command in the Start Mail Merge group under Mailings tab.

**Step 6:** Click on **Type New List** from the drop-down list. The **New Address List** dialog box appears on the screen.

**Step 7:** Enter the required details like Title, First Name, Last Name, Address Lines, etc. for all the recipients.

**Step 8:** When the details of all the recipients have been added, click on **OK** button. This will open **Save Address List** dialog box on the screen.

**Step 9:** Enter a name for the file. Here, we have entered **My Invitations**.

**Step 10:** Click on **Save** button.

**Step 11:** Move the cursor to the position where addresses of the recipients are to be added.

**Step 12:** Click on **Address Block** command from **Write & Insert Fields** group under **Mailings** tab.

The **Insert Address Block** dialog box will appear on the screen. This will show a preview of the address as it will appear on the letter.

**Step 13:** Click on **OK** button. This will insert the address block at the place of the cursor.

**Step 14:** Move the cursor to the place where you want to insert other fields like Title, First Name, Last Name, etc. fields.

**Step 15:** Click on **Insert Merge Field** command **Write & Insert Fields** group under **Mailings** tab.

**Step 16:** Click on the field name to be inserted from the drop-down list of the fields. All the inserted field names will appear on the letter.

**Step 17:** Click on **Preview Results** command from Preview Results group under **Mailings** tab.

A preview of the letter will be shown in the document.

**Step 18:** Click on arrow buttons in **Preview Results** group under **Mailings** tab to see a preview of each letter.

**Step 19:** Click on **Finish and Merge** tool from **Finish** group under **Mailings** tab. This will open a drop-down list.

**Step 20:** Select **Print Documents** option. The **Merge to Printer** dialog box will appear on the screen.

**Step 21:** Click on the **All** radio button.

**Step 22:** Click on **OK** button to print personalised copies of the letters.

2. Track changes feature in Word helps the user to keep a record of formatting, text insertions, deletions and comments made by multiple editors. A final document can then be created by accepting or rejecting the proposed changes.
3. The main document contains the contents of the letter that remains the same for each of the merged document, it may contain text, letter, graphics, etc. It also contains the field Name and Address that retrieves names from the data source file of names and addresses.
4. To send mails by mail merge, there has to be:
   i. Main Document (Letter)
   ii. Data Source (Address of recipients)

   For doing Mail Merge, a document is typed as the main document which is sent to different recipients, whose data is available in the data source file.
5. Steps to insert comments in a Word document:
   i. Place the cursor where the comment is to be inserted.
   ii. Click on Review tab.
   iii. Click on New Comment command from the Comments group. A red rectangular box towards the right edge of the document with link to the place of the cursor will appear on the screen.
   iv. Type the notes in the box.

**B.** Track changes

# 6. Working with Spreadsheet



## Unsolved Exercise

### Section A

**A.** 1. i 2. i 3. i 4. ii

**B.** 1. Text orientation 2. .xlsx 3. Cell Pointer
4. right

### Section B

**A.** 1. A spreadsheet package enables to accomplish such tasks quickly and efficiently. A spreadsheet package is an application software that does analysis, calculations, comparisons and displays information in required format and also as charts and graphs.

Spreadsheet packages are commonly used for keeping data, displaying organised data, generating results, planning budgets, making annual reports of business organisations, generating salary statements, doing tax calculations, etc.

**Features of spreadsheet package**

With the help of a spreadsheet package:

1. Bulk volume of data can be kept and handled in easier way.
2. Complex and long calculations can be solved accurately.
3. Data can be exported to or imported from other packages.
4. Data can be expressed in tabular or pictorial form, i.e. in the form of charts and graphs.
5. The formulae for calculation can be automatically applied to any data even when the data value changes.

2. **Step 1:** Right-click on the sheet tab of the sheet to be hidden.

   **Step 2:** Click on the **Hide** option.

3. **Step 1:** Right click on **Sheet1** tab.

   **Step 2:** Select **Insert** option. The **Insert** dialog box appears on the screen.

   **Step 3:** Click the **Worksheet** option under the **General** tab of the dialog box.

   **Step 4:** Click on the **OK** button.

4. Data can be classified into numeric, alpha-numeric or text, date/time and formula.
5. Top Align, Middle Align, Bottom Align, Align Text Left, Center, Right
6. Each cell has a unique address which identifies its location. A cell address is identified with its column position followed by its row number, for example: 'A5' is the cell address that is a combination of column 'A' and row '5'.
7. i. Formula bar lies below the Office Ribbon. Formula that performs different calculations in cells is entered and displayed here. It is denoted by 'fx'. It is used for entering and editing the formula in the cell.

   ii. Numeric Data are the operands on which formula is applied to perform arithmetic calculation. Operands refer to data on which formula is applied.

   iii. It lies below the active sheet of the screen. The names of the worksheets appear in the sheet tabs at the bottom of the workbook. Click on the specific sheet tab to open it.

   iv. A rectangular box formed by the intersection of a row and a column is called a cell. Cell is the basic unit of a worksheet where data (numbers, text, formulas, etc.) are entered.

8. i. A workbook consists of worksheets. Worksheet is the working area or page on the screen. A worksheet consists of rows and columns. (A workbook is like a book and worksheet is like the page of a book). By default, a workbook opens with a worksheet, namely Sheet1. The user can change the name of the sheet and may delete or add extra sheets if required. The name of each sheet appears in the sheet tab towards the bottom of the worksheet. The active sheet i.e. the sheet being used, is highlighted.

ii. Undo and Redo: While working in the worksheet, Undo command helps the user to reverse the series of actions and Redo helps to reverse the actions that have been executed by the Undo action.

Undo can be done by: Pressing Ctrl+Z keys or by clicking on the Undo command on the Quick Access Toolbar.

Redo can be applied by: Pressing Ctrl+Y keys or by clicking on the Redo button on the Quick Access Toolbar.

A. 1. Wrap text
2. E9
3. Spreadsheet software

# 7. Formatting Cells in Spreadsheet



## Unsolved Exercise

### Section A

**A.** 1. ii 2. i 3. i 4. i 5. i

**B.** 1. 0 2. chart title 3. Column 4. font styles 5. column chart

### Section B

**A.** 1. **X-Axis:** It is the horizontal axis and is known as category axis.

**Y-Axis:** It is the vertical axis and is known as value axis.

The X and Y axis divide the X-Y plane into four quadrants.

**Data series:** It is the set of values which the user wants to plot in the chart.

**Chart Area:** It refers to the total area surrounded by the chart.

**Plot Area:** It is that area of the chart in which the data is plotted.

In a 2-D chart; axis bound the plot area whereas in 3-D charts, walls and floors bound the plot area.

**Chart Title:** It is the heading text that helps to identify the chart.

**Axis Titles:** It refers to the titles given to the three axis, i.e. X, Y and Z axis.

**Legend:** It helps to identify the plotted data series. Unique colour or pattern is helpful to identify such series.

**Gridlines:** It refers to the horizontal and vertical lines in the plot area. The gridlines are inserted in the chart to enhance its readability.

**Data Label:** It refers to the label that provides additional information about data marker, thus represents a single data item or value of a cell.

**Walls & Floors:** In a 3-D chart, the base area or the plane in X-Y axis is called the floor and the vertical areas, i.e. planes in X-Z and Y-Z axis are called walls.

2. The various alignment options are Top Align, Middle Align, Bottom Align, Align Text Left, Center and Align Text Right.

3. • Charts are visually appealing and make it easy for the users to compare and understand about the information.
   • These help to forecast the trends on the basis of comparisons done.

4. **Step 1:** Select the data for which chart is to be created.

   **Step 2:** Click on the **Insert** tab.

   **Step 3:** Click on any of the chart categories in Charts group. A drop-down list of options of different chart formats under that category will open.

   **Step 4:** Click on a chart format.

5. • **Line Chart:** Line chart is used to view information that is shown by lines at equal intervals. It depicts the change in data over a period of time.
   • **Column Chart:** A column chart represents the data over a period of time in columns. Each column rises from X-axis and indicates the value of a data. The measurement values are shown vertically as Y-axis.
   • **Bar Chart:** A bar chart represents the data in horizontal columns. The measurement of values are organised horizontally. Stacked bar chart is a variation of bar charts.
   • **Pie Chart:** A pie chart represents the data or value of each item in proportion or percentage to the consolidated or the sum value of all items. Pie chart displays single type of data item and is beneficial when the user wants to emphasize value of a significant item. Pie charts highlights compare how each value relates proportionally to the whole.

6. i. The data in a cell gets aligned by default, based on the type of the data entered. (If the data is of text type, it will be aligned towards left. If the data is of numeric type, it will be aligned towards right).

   ii. The cell in spreadsheet can hold different types of data such as decimal values, percentage, textual values, date & time etc. Data present in the cell can be customized or formatted.

   Some commonly used formats for entering data in Excel are: Number, Currency, Short Date, Percentage, Text, etc.

   iii. In spreadsheet package, there are additional features that help to represent information in the form of charts and graphs. It is a visual graphical representation of data from a worksheet which is very useful for instant analysis of data and decision making. There are various options of charts that can be used to display in Excel in graphical format.

   iv. It refers to the titles given to the three axis, i.e. X, Y and Z axis.

7. Wrap Text command to make the long text entered in a cell completely visible by displaying in multiple lines within the cell.

Shrink to fit cells reduces the font size of the data to accommodate it within the column width.

8. i. In a 3-D chart, the base area or the plane in X-Y axis is called the floor and the vertical areas, i.e. planes in X-Z and Y-Z axis are called walls.

   ii. In Excel, you can align data from top to bottom within a cell. There are five vertical alignments: Top, Center, Bottom, Justify and Distributed.

9. In Excel, you can align data from top to bottom within a cell. There are five vertical alignments: Top, Center, Bottom, Justify and Distributed.

10. An area chart is a version of a line or column graph. It is useful to emphasize the volume of changes of data. Area charts have better visual impact than a line chart.

    Line chart is used to view information that is shown by lines at equal intervals. It depicts the change in data over a period of time.

**B.** 1. Do it yourself 2. Do it yourself

# 8. Digital Presentation



## Unsolved Exercise

### Section A

**A.** 1. ii 2. iii 3. ii 4. i 5. iv

**B.** 1. Slide show 2. slide pane 3. workspace 4. F5 5. Notes, Handout

### Section B

**A.** 1. Presentation is a way of systematic display of information. It includes pictures, texts, graphics, audio, videos and animated objects which are organised and presented electronically in a proper sequence on screen.

   The software that is used to organise and display information through text, pictures, figures, etc. is known as Graphical Presentation Package.

2. OpenOffice Impress, MS PowerPoint, Adobe Director, 3-D Studio, etc.

3. **Step 1:** Click on **Save** or **Save As** option under the **File** tab. [Or] Click on the **Save** command from the **Quick Access Toolbar**. If the presentation is being saved for the first time, **Save As** dialog box appears where the user has to enter the name of the file. All PowerPoint files have an extension as '.pptx'.

   **Step 2:** Select the folder where the presentation has to be saved.

   **Step 3:** Type the desired file name.

   **Step 4:** Click on the **Save** button.

4. In Slide Sorter View, the user can view more than one slide in a small size on the screen. The number of slides that gets accommodated on the screen depends on the monitor and the

percentage of Zoom. The slide number appears at the bottom, towards the right corner of each slide.

5. In normal view (by default) a blank slide appears on the workspace. It enables a user to make presentation as per the need. It is helpful while designing presentation of large number of slides. It sets the standard for viewing slides.
6. The slides pane contains thumbnails of the slides of a presentation in sequence of display. If any one of the slides in this pane is clicked, that particular slide opens in the workspace.
7. i. During the presentation, a set of notes is required as a reference to help the person giving the presentation. Such notes are known as Speaker's Note. It is a small hint about the information in slides.

   ii. **Outlines:** Outline is a miniature or summarised view of the slides in a presentation. In outline, only the title, sub-titles and the main text of all the slides, excluding pictures, tables or charts are displayed. Outlines can be used to organise the sequence of flow of information of slides in a presentation.
8. Presentation package can be used for different purposes like:
   - **On-Screen Presentation:** Presentation packages can be used to create exciting and effective on-screen presentations that can be displayed through LCD projectors or LED TVs. They include movies, sounds, animations, etc.
   - Web Presentation: Presentation package can be used for displaying presentations on the web. Thus, presentation can be made accessible to people staying in remote places of the world.
   - 35 mm Slides: The electronic slides or pages can be used to make 35 mm slides for different purposes.
   - Overhead Transparencies: The slides made in a graphical presentation package can be printed on transparent sheets facilitating overhead presentations.
   - Handouts and References: The outline of slides can be printed on a paper which can be used for reference purpose and the matter of the slides can also be used as notes.

   In this chapter, we will discuss about the presentation package in reference to PowerPoint.

   PowerPoint is used to make effective presentation with the help of movies, sounds, graphs, etc. It is a part of Microsoft Office Suite.
9. Slide layout refers to the basic look or the frame of type of slide in which contents can be added. In PowerPoint, there are various types of predefined layouts for creating slides which can be used for creating a new presentation. Some frequently used layouts are Title Slide, Title and Content, Title-Only, Blank Slide, etc.
10. The presentation can be viewed in six different modes, i.e., Normal, Outline, Notes page, Reading View, Slide Sorter and Slide Show View.

**B.** 1. .jpg, .png, .tif  2. Animation effects

## Unsolved Exercise

### Section A

**A.** 1. i 2. iii 3. ii 4. ii 5. ii

**B.** 1. Handout 2. slide show 3. pase special 4. template 5. .pptx

### Section B

**A.** 1. Duplicate option enables the user to quickly copy and paste a slide with all its content. The slide must be active/selected before initiating the 'duplicate' operation.

2. In PowerPoint, different pictures and objects can be combined together to display as a single object. This process of combining of objects/pictures is known as grouping. Such unit or group can be flipped, rotated, resized or scaled as a single object.

3. Animation facilitates the display of presentation of contents in a special sequence of typical effects leading to interesting and lively presentation. It includes multiple types of media control like graphics, video, sound, music, movies, etc.

4. Custom animation enables to set timings between the display of the content or objects of the slides and also enables to apply different whirling effects to animate the object.

5. Slide transition enables to set the style of display of the slides during the entry of the presentation. It is the effect applied when a slide changes to another during on-screen presentation or slide show.

6. There are four types of animation effects available in custom animation: entrance, emphasis, exit and motion.

   i. **Entrance:** In entrance for example, text or object rapidly appears (Appear), gradually come into view (Fade in), wiped into place from a specified direction ( Wipe), etc.

   ii. **Emphasis:** In this animation for example, text or object spins clockwise or counterclockwise (Spin), first grows, then shrinks to specified size (Grow/Shrink), appears at a specified level of transparency (Transparency), etc.

   iii. **Exit:** In this animation for example, text or object disappears rapidly (Disappear), fades from view (Fade), flies away in a specified direction (Fly Out), etc.

   iv. **Motion Path:** In this animation, text or object appears in a motion path. This path could be a circle, a line, arcs, etc.

7. 'Zoom Control Slider' is used to adjust the size for viewing a slide. Click and drag the slider to use the zoom control. The number next to the slider displays the current zoom percentage. It is also known as zoom level.

8. Shapes are the forms of an object which consist of outline boundary, contours, etc. Shape is used to enhance the visual effect in a presentation. In Microsoft Office PowerPoint, various inbuilt shape tools are present.

9. i. Select the content to be copied, then click the 'Copy' command under Home tab.
   ii. Place the insertion point on the desired area where content is required to appear.
   iii. Press 'Ctrl+V' keys from keyboard.
   iv. The copied text will appear at the insertion point.
10. • To make the presentation more effective and informative, the user can write the topic name, date & time, slide number and the event name for which the slides are presented. The user can display the slide number as the footer.
    • In PowerPoint, there are added facilities like design templates, pictures, etc., that help the user to create the slides easily and effectively along with predefined ideas.
    • The slides in PowerPoint can contain audio, video, graphs, tables, graphics, photographs, etc. in addition to text.

**B.** 1. She can create same design on each slide and handout manually or use slide master and handout master.

2. Handouts