

Practice Test Answers-Class X

Unit 1: Communication Skills - II

Q1. Differentiate between formal communication and informal communication with suitable examples.

Ans. Formal communication follows a defined and structured path in an organisation. It includes official methods such as emails, memos, reports, meetings, and conferences, where the flow of information is systematic and controlled. An example of formal communication is a manager sending an official email to employees about a new policy. In contrast, informal communication does not follow any predefined channel and can occur freely among individuals. It spreads quickly in all directions and is also known as grapevine communication. An example of informal communication is colleagues chatting during lunch break about upcoming events. Both forms play important roles but are used in different situations.

Q2. Explain the pros and cons of written, verbal, and non-verbal communication as discussed in the unit.

Ans. Written communication is clear and can be preserved for future reference, but it is time-consuming and lacks personal touch. Verbal communication provides immediate feedback and feels more personal, but it cannot always be recorded and may sometimes lead to miscommunication if the message is not clear. Non-verbal communication can help detect true emotions through gestures or expressions, but it is often subjective because interpretation varies from person to person. Each type has strengths and limitations, and the choice depends on the purpose and situation.

Q3. What is the role of encoding and decoding in the communication process? Explain with examples.

Ans. Encoding is the process in which the sender converts thoughts into words, symbols, or gestures before sending the message. Decoding is the receiver's process of interpreting or understanding that message. For example, when a teacher explains a concept using simple language, she is encoding the information for students. When students understand and respond correctly, they are decoding the message. Effective communication depends on how well encoding and decoding are carried out by both sides.

Q4. Describe the concept of visual communication and mention any three examples used in daily life.

Ans. Visual communication uses images, symbols, signs, or graphics to convey a message that can be seen. It is useful because it provides quick understanding even without words. In daily life, visual communication includes traffic signs that guide drivers, warning symbols such as "no entry," and icons like the Wi-Fi symbol that inform users of a wireless network. Such visuals help people interpret information instantly and accurately.

Q5. What are the Do's and Don'ts of body language, and why are they important during communication?

Ans. Body language includes gestures, posture, facial expressions, and eye contact, and it plays a key role in non-verbal communication. The Do's include keeping a relaxed posture, smiling genuinely, maintaining eye contact, and nodding to show engagement. The Don'ts include crossing arms, giving fake smiles, fidgeting, shaking legs, or looking away while interacting. These behaviours are important because they influence how others perceive confidence, interest, and sincerity, making communication more effective and meaningful.

Q6. How do cultural barriers affect communication between individuals from different backgrounds?

Ans. Cultural barriers arise when people from different cultural backgrounds interpret messages differently due to variations in beliefs, customs, language, and behaviour. These differences can lead to misunderstandings or confusion. For example, a gesture considered polite in one culture may be seen as rude in another. Differences in communication styles such as direct versus indirect speech, can also create barriers. Understanding cultural diversity helps individuals communicate more sensitively and effectively.

Q7. What is the importance of feedback in classroom teaching? Provide a suitable example.

Ans. Feedback in classroom teaching ensures that students understand the teacher's explanation correctly. It helps identify areas where students need improvement and allows teachers to adjust their teaching style accordingly. For example, when a teacher asks a question after explaining a topic, students' answers act as feedback. If many students give incorrect answers, the teacher knows they must re-explain the concept. This process improves learning and strengthens communication between teachers and students.

Q8. Explain the structure and essential elements of a well-constructed paragraph.

Ans. A well-constructed paragraph focuses on one central idea and presents it clearly. It has four essential elements: Order, Unity, Coherence, and Completeness. Order refers to arranging sentences logically. Unity means that every sentence must relate to the main topic. Coherence ensures that ideas flow smoothly and are connected meaningfully. Completeness means the paragraph provides enough information to fully explain the topic. When these elements are present, writing becomes clear and easy to understand.

Q9. Describe the difference between simple, compound, and complex sentences with examples.

Ans. A simple sentence contains one subject and one verb and expresses a complete thought, such as "The boy smiled." A compound sentence has two independent clauses joined by conjunctions like "and" or "but," for example, "I went to school, but it was closed." A complex sentence contains one independent clause and one dependent clause, such as "If you study hard, you will succeed." These sentence types help writers express ideas with varying levels of detail.

Q10. Why are punctuation marks important in writing? Explain any four punctuation marks with examples.

Ans. Punctuation marks make writing clear, organised, and meaningful. They guide readers on when to pause, stop, or understand emphasis in a sentence. The full stop (.) ends a statement, for example, "She is reading." The comma (,) indicates a short pause, such as in "Yes, I will join you." The question mark (?) ends a question, for example, "Where are you going?" The exclamation mark (!) expresses strong emotions, such as "What a surprise!" Using punctuation correctly improves clarity and avoids confusion.

Unit 2: Self-Management Skills – II

1. Explain the meaning of stress and describe how it affects an individual.

Ans. Stress refers to the physical, emotional, or mental pressure people experience when they are unable to cope with demands or situations around them. It affects individuals differently by causing changes in their thoughts, emotions, and physical health. When a person undergoes stress, they may feel anxious, irritated, forgetful, or physically tired. Long periods of unmanaged stress can lead to issues like headaches, poor concentration, lack of sleep, and emotional imbalance. Understanding stress is important because recognising early signs helps people take steps to manage it effectively.

Q2. Describe the difference between good stress (eustress) and bad stress (distress).

Ans. Good stress, also known as eustress, helps an individual stay motivated and perform better during challenging situations. It creates a positive pressure that pushes a person to complete tasks or achieve goals, such as feeling excited before a competition. Bad stress, or distress, is harmful and occurs when pressure becomes overwhelming, leading to negative physical and emotional effects. This type of stress may cause fear, anxiety, anger, or lack of focus. Knowing the difference between the two helps individuals respond appropriately and maintain emotional balance.

Q3. What are the physical, emotional, and mental signs of stress? Explain with examples.

Ans. Stress affects a person in three major ways: physically, emotionally, and mentally. Physical signs include headaches, stomach aches, tiredness, or changes in eating habits. Emotional signs involve sadness, frustration, short temper, or mood swings. Mental signs include forgetfulness, inability to concentrate, and decline in performance at work or school. These symptoms vary among individuals, but noticing them early helps in taking corrective measures to reduce stress levels and maintain a healthy lifestyle.

Q4. Define self-awareness and explain why it is important for personal growth.

Ans. Self-awareness is the ability to understand one's own emotions, strengths, weaknesses, thoughts, and behaviour. It helps people observe themselves honestly and recognise how they react in different situations. This understanding is important because it encourages self-improvement and emotional intelligence. When individuals know their limitations and strong areas, they can develop better habits, make responsible decisions, and communicate more effectively. Self-awareness also builds confidence and helps people manage their emotions in a healthy way.

Q5. Explain the difference between public self-awareness and private self-awareness.

Ans. Public self-awareness occurs when individuals become conscious of how they appear to others in social or public situations, such as giving a speech or performing on stage. This awareness guides people to follow social rules and behave appropriately. Private self-awareness occurs when individuals reflect on their own actions, emotions, and thoughts in a personal manner, such as looking into a mirror or analysing their behaviour. Both forms of self-awareness help individuals understand who they are and how they interact with the world.

Q6. Describe intrinsic and extrinsic motivation with suitable examples.

Ans. Intrinsic motivation comes from internal satisfaction, where individuals perform tasks because they enjoy them or find them meaningful. For example, a student may study a subject because they genuinely love learning about it. Extrinsic motivation comes from external rewards such as money, marks, appreciation, or promotions. For instance, an employee may work extra hours to earn a bonus. Both types of motivation influence a person's behaviour and help in achieving personal or organisational goals.

Q7. What is self-regulation? Explain how it helps manage emotions effectively.

Ans. Self-regulation is the ability to monitor and control one's emotions, behaviour, and thoughts in various situations. It enables individuals to stay calm, think clearly, and avoid impulsive decisions. With strong self-regulation, a person responds to challenges patiently rather than reacting with anger or frustration. This skill is essential for building positive relationships, managing stress, and achieving long-term goals. It helps individuals stay focused and maintain emotional balance in daily life.

Q8. What is self-analysis? Explain how it helps individuals understand themselves better.

Ans. Self-analysis is the process of examining one's strengths, weaknesses, thoughts, emotions, and behaviours. It helps individuals recognise their abilities, fear, desires, and limitations through honest reflection. By identifying these aspects, a person becomes more aware of what needs improvement and what qualities should be strengthened. Self-analysis builds confidence, supports better decision-making, and guides people toward personal growth. It is an important step in converting weaknesses into strengths and developing a clearer sense of identity.

Q9. Explain the importance of time management and how it improves daily life.

Ans. Time management involves planning, organising, and using time efficiently to complete tasks within a set schedule. It allows individuals to prioritise their work, reduce stress, and stay productive. With good time management, people avoid delays, break large tasks into smaller activities, and meet deadlines easily. It also creates a balance between work and personal life. Effective use of time leads to improved performance, better focus, and a more disciplined lifestyle.

Q10. Discuss the SMART method of goal setting and explain how it helps in achieving goals.

Ans. The SMART method helps individuals set clear and achievable goals by ensuring that each goal is Specific, Measurable, Achievable, Relevant, and Time-bound. A specific goal clearly states what needs to be achieved. A measurable goal allows you to track progress. An achievable goal is realistic and possible to complete. A relevant goal aligns with personal values and future plans. A time-bound goal has a deadline that encourages consistent effort. By following the SMART method, individuals stay focused, avoid confusion, and work systematically toward success.

Unit 3: Information and Communication Technology Skills-II

Q1. Explain the role of an operating system as an interface between the user and the computer hardware.

Ans. An operating system acts as a bridge that connects the user with computer hardware. It manages all essential system resources, coordinates hardware components, and allows users to run applications smoothly. When a user gives a command, the operating system translates it into a language the hardware understands. For example, when a user opens a file, the OS communicates with the storage device to fetch it and display it on the screen. Without an operating system, a computer cannot function because users would have no way to interact with its components.

Q2. Describe the main features of a multiprogramming operating system.

Ans. A multiprogramming operating system allows several programs to stay in memory at the same time. The CPU switches between these programs quickly, ensuring that it is never idle. This improves the efficiency of the computer as multiple tasks appear to run simultaneously. By managing the states of active programs and sharing processor time, the system ensures smooth performance. Such operating systems are commonly used where better hardware utilisation is required.

Q3. What is the purpose of desktop icons in Windows 10?

Ans. Desktop icons in Windows 10 serve as quick-access tools that help users open files, folders, applications, and system locations without navigating through long menus. Each icon represents a specific program or location, and double-clicking it immediately launches the related function. Icons make the Windows environment easy to use, especially for beginners, because they provide a visual method of accessing important items like This PC, Recycle Bin, Notepad, or Settings.

Q4. Write the importance of organizing files using directories and subdirectories.

Ans. Organizing files using directories and subdirectories helps keep data neat, easy to locate, and systematically grouped. Instead of storing all files in one place, users can create folders for different categories such as documents, music, images, or projects. Subdirectories allow further division, creating a clear hierarchy. This makes searching, managing, and backing up data simpler. For example, a student may create a main folder named "School Work" and separate subfolders for each subject to keep everything well arranged.

Q5. Explain the steps involved in creating a new folder in Windows 10.

Ans. A new folder in Windows 10 can be created through File Explorer. First, the user navigates to the location where the folder is needed. Then, they click the New folder button on the Home tab or right-click on an empty space and choose New → Folder. A folder with a default name appears, and the user can immediately type a preferred name before pressing Enter. This simple process helps users organise their files efficiently.

Q6. Discuss why regular maintenance of a computer is necessary.

Ans. Regular maintenance ensures that a computer works smoothly, efficiently, and safely. Dust and dirt can slow down hardware components, cause overheating, and even lead to system failure. Removing unnecessary software frees up storage and improves speed. Updating antivirus software and scanning regularly help protect the system from harmful viruses and malware. Maintenance also includes backing up important data to prevent loss. Without proper care, computers may slow down, freeze, or face frequent technical issues.

Q7. What are the common signs that a computer may be infected by a virus?

Ans. Common signs of a virus infection include slow system performance, unexplained error messages, programs crashing unexpectedly, and files disappearing or becoming corrupt. Users may notice unusual pop-ups, strange graphics, or unknown folders appearing automatically. Sometimes, music or sounds may play without any open application. These symptoms indicate that malicious software is interfering with normal system operations, and immediate scanning is required.

Q8. Explain how antivirus software protects a computer system.

Ans. Antivirus software identifies, blocks, and removes harmful programs such as viruses, worms, and trojans. It scans files, folders, and storage drives to detect suspicious activity. Once a threat is found, the antivirus either deletes it or moves it to quarantine. Regular updates enable the software to recognize new threats. By detecting and eliminating malicious programs early, antivirus software helps maintain computer performance, protect personal data, and prevent system damage.

Q9. Describe the process of shutting down a Windows 10 computer safely.

Ans. To shut down a Windows 10 computer safely, the user begins by clicking the Start button at the bottom-left of the screen. Then, they select the Power button in the Start menu, which displays options such as Sleep, Restart, and Shut down. Choosing Shut down closes all running programs, safely stops system processes, and switches off the computer. Proper shutdown prevents data loss, software corruption, and hardware issues.

Q10. What steps should a user follow to restore a deleted file from the Recycle Bin?

Ans. To restore a deleted file, the user first opens the Recycle Bin by double-clicking its icon on the desktop. Inside the window, all recently deleted files and folders are displayed. The user locates the required item, right-clicks on it, and selects the Restore option. The file is then moved back to its original location. This feature helps recover items that were accidentally deleted.

Unit 4: Entrepreneurial Skills-II

Q1. Explain the term entrepreneurship and how it contributes to society.

Ans. Entrepreneurship is the process through which individuals identify business opportunities, gather resources, take risks, and establish ventures to satisfy customer needs while earning profits. It goes beyond simply starting a business and involves innovation, creativity, leadership, and strategic decision-making. Entrepreneurship contributes significantly to society by generating employment opportunities, which helps reduce unemployment and improve the standard of living. It encourages competition, which results in better-quality products and services. Entrepreneurs also support the economy by increasing production, paying taxes, and contributing to national income. Their innovative solutions often improve daily life such as safer transportation, better healthcare products, or digital services, thereby making society more efficient and progressive.

Q2. Describe how entrepreneurship promotes social change.

Ans. Entrepreneurship promotes social change by introducing innovative ideas and solutions that improve the lives of people in a community. When entrepreneurs design new products or services, they often replace outdated practices with more sustainable, affordable, and efficient alternatives. For example, digital payment systems replaced the need for carrying cash, improving safety and convenience. Entrepreneurs also address pressing social issues such as poverty, education, health, gender inequality, and environmental sustainability. By establishing ventures that focus on clean energy, low-cost healthcare, or accessible education, they bring long-term positive changes. Entrepreneurship also encourages empowerment by offering opportunities to marginalised groups, including women, rural youth, and differently-abled individuals, thereby transforming society in a meaningful way.

Q3. What is meant by social entrepreneurship? Give an example.

Ans. Social entrepreneurship refers to creating and operating a venture that aims to solve social, cultural, or environmental problems through innovative and sustainable methods. The focus is not solely on earning profits but on creating measurable social impact. Social entrepreneurs combine business skills with compassion to support communities and improve living conditions. For example, a company producing low-cost sanitary pads for rural women addresses hygiene issues while improving women's health and dignity. Another example is an organisation that recycles waste and employs homeless individuals, supporting both environmental cleanliness and livelihood generation. Such ventures ensure long-term positive change instead of temporary charity.

Q4. Describe any three important qualities of a successful entrepreneur.

Ans. A successful entrepreneur must possess several key qualities, among which risk-taking, creativity, and leadership are essential. Risk-taking involves making bold decisions despite uncertainties, such as investing money in a new product or entering a new market. Entrepreneurs carefully calculate risks and take them with confidence, believing in their vision. Creativity helps entrepreneurs generate new ideas, develop unique products, and find innovative solutions to customer problems. It allows them to differentiate their business from competitors. Leadership is equally important because entrepreneurs must guide their team, motivate employees, resolve conflicts, and take responsibility for decisions. A strong leader builds trust, ensures teamwork, and steers the business towards growth and success.

Q5. Explain the importance of innovation in entrepreneurship.

Ans. Innovation is crucial in entrepreneurship because it enables businesses to stay relevant, competitive, and profitable in a constantly changing market. Through innovation, entrepreneurs introduce new products, improve existing ones, apply advanced technologies, and create more efficient methods of production. This results in improved customer satisfaction, reduced costs, and increased productivity. Innovation also helps in identifying unmet customer needs and opportunities for expansion. Companies that innovate frequently become industry leaders and set new standards. For example, the introduction of online delivery systems transformed the retail industry by offering convenience and saving time. Innovation ensures that businesses remain adaptable and capable of surviving competition and economic fluctuations.

Q6. What role do entrepreneurs play in economic development?

Ans. Entrepreneurs play a vital role in economic development by contributing to industrial growth, employment generation, and financial stability. When entrepreneurs start businesses, they create job opportunities that help reduce unemployment and increase household income. Their ventures contribute to industrial expansion and encourage competition, which results in better-quality goods and services. Entrepreneurs also invest capital in machinery, technology, and human resources, which boosts productivity. They promote regional development by establishing industries in less-developed areas, reducing regional imbalances. Additionally, entrepreneurs contribute to national income by paying taxes and increasing exports. Their innovative efforts lead to technological advancements that support long-term economic progress.

Q7. Define entrepreneurship development and state its objective.

Ans. Entrepreneurship development is a structured process of enhancing the skills, knowledge, mindset, and confidence of individuals so they can successfully start and manage their own businesses. It includes training programs, workshops, mentoring sessions, financial literacy guidance, and practical exposure that help potential entrepreneurs understand market realities. The main objective of entrepreneurship development is to create a large pool of capable, confident, and self-reliant entrepreneurs who can contribute to economic growth. It aims to motivate individuals to become job creators instead of job seekers, improve their problem-solving abilities, and equip them with the tools needed to launch sustainable ventures.

Q8. How does the Startup India scheme support new entrepreneurs?

Ans. The Startup India scheme supports new entrepreneurs by providing a favourable environment for the growth of innovative start-ups. It simplifies the process of registering a business by allowing online registration and self-certification. The scheme offers financial benefits such as funding support, tax exemptions, reduced compliance requirements, and access to government-backed loans. It also provides mentorship programs, incubation centres, and networking opportunities where entrepreneurs can interact with industry experts. The scheme encourages innovation by offering research support, creating opportunities for collaboration, and organising national-level startup festivals. These initiatives reduce barriers and help young entrepreneurs turn their ideas into successful ventures.

Q9. Mention the difference between innovative and imitative entrepreneurs.

Ans. Innovative entrepreneurs introduce new products, technologies, or business models into the market. They rely on creativity and originality to develop solutions that did not previously exist. Their ventures often become trendsetters and drive industries forward. For example, creating the first electric car in the market would be the work of an innovative entrepreneur. Imitative entrepreneurs, on the other hand, adopt or copy existing ideas, products, or technologies and implement them in markets where they do not yet exist. They may not invent something new, but they successfully bring established ideas to new customers. For example, starting a coffee shop similar to a popular chain in a small town is imitative entrepreneurship.

Q10. Why is risk-taking considered an essential function of an entrepreneur?

Ans. Risk-taking is essential for entrepreneurs because every business involves uncertainty regarding investment, market response, competition, and future demand. Entrepreneurs must make decisions without always knowing the outcome, such as launching a new product, entering an unfamiliar market, or investing in new technology. Taking calculated risks allows them to explore new opportunities and gain competitive advantages. Entrepreneurs who avoid risks miss opportunities for innovation, expansion, and profit. Successful risk-taking requires careful planning, market research, and confidence in one's abilities. By taking risks, entrepreneurs drive progress, create new industries, and contribute to economic development.

Unit 5: Green Skills – II

Q1. What is sustainable development?

Ans. Sustainable development is a type of growth that fulfils the needs of people living today without harming the environment or limiting the ability of future generations to meet their own needs. It focuses on balancing economic progress, social well-being, and environmental protection. It promotes careful use of natural resources, protects biodiversity, reduces pollution, and encourages long-term planning so that development continues without damaging the planet. This approach ensures that both present and future generations can enjoy a healthy and stable environment.

Q2. What are renewable resources? Explain with examples.

Ans. Renewable resources are natural resources that can be replenished naturally within a short period of time, making them usable again and again without running out. Examples include solar energy, wind energy, water, and biomass. These resources are environmentally friendly and help reduce dependence on fossil fuels such as coal and petroleum. Using renewable resources lowers pollution, supports sustainable development, and ensures a cleaner and safer environment for future generations to live in comfortably.

Q3. What is vermicomposting?

Ans. Vermicomposting is an eco-friendly process in which earthworms break down organic waste such as vegetable scraps, fruit peels, and dry leaves to produce nutrient-rich compost. The earthworms digest the waste and release a natural fertiliser known as vermicompost. This compost improves soil fertility, enhances plant growth, and reduces the amount of waste sent to landfills. Vermicomposting is easy to set up at home or school and is an excellent way to support sustainable agriculture.

Q4. How does sustainable development balance environmental protection with economic growth?

Ans. Sustainable development balances environmental protection and economic growth by promoting responsible use of natural resources while supporting industrial development and better living standards. It encourages renewable energy, waste reduction, pollution control, and efficient water and land use. At the same time, it supports job creation, business growth, and improved infrastructure. This balanced approach ensures that countries grow economically without harming nature, allowing future generations to benefit from both a healthy environment and a strong economy.

Q5. How does solar energy support sustainable living?

Ans. Solar energy supports sustainable living because it is a clean, renewable, and unlimited source of power. It reduces electricity bills, lowers dependence on fossil fuels, and produces no greenhouse gases or harmful emissions. Solar panels require little maintenance and can be used in homes, schools, farms, and remote areas where electricity may not be available. By using solar energy, people help reduce pollution, conserve natural resources, and support long-term environmental protection.

Q6. How does sustainable agriculture contribute to sustainable development?

Ans. Sustainable agriculture supports sustainable development by using farming methods that protect the environment while ensuring long-term food production. It includes practices like organic farming, crop rotation, reduced chemical use, soil conservation, and efficient irrigation techniques. These methods improve soil fertility, reduce water wastage, and protect biodiversity. Sustainable agriculture helps farmers earn steady income, ensures safe food for consumers, and prevents environmental damage, making it essential for future generations.

Q7. What is afforestation and how does it help ecological balance?

Ans. Afforestation is the process of planting trees in areas where no forests previously existed. It helps maintain ecological balance by absorbing carbon dioxide, releasing oxygen, controlling soil erosion, and increasing rainfall. Trees also provide shelter for wildlife, improve air quality, and moderate the climate. Afforestation helps reduce global warming, restores damaged ecosystems, and increases the planet's green cover, making it crucial for protecting the environment and supporting biodiversity.

Q8. What are four major causes of ecological imbalance?

Ans. Four major causes of ecological imbalance include pollution, deforestation, overuse of natural resources, and rapid urbanisation. Pollution harms air, water, and soil, affecting both humans and animals. Deforestation destroys forests and leads to loss of biodiversity. Overuse of natural resources reduces their availability for future generations, while rapid urbanisation creates overcrowding, waste, and habitat destruction. Together, these factors disrupt nature and lead to serious environmental problems.

Q9. Why is promoting a green economy important?

Ans. Promoting a green economy is important because it encourages economic growth that is environmentally friendly and sustainable. A green economy supports renewable energy, recycling, waste reduction, and efficient use of resources. It creates green jobs, reduces carbon emissions, and protects natural ecosystems. By shifting to eco-friendly industries, countries can improve environmental quality, reduce climate change, and ensure long-term economic stability. This helps both nature and society to thrive together.

Q10. How does environmental citizenship support sustainable development?

Ans. Environmental citizenship supports sustainable development by encouraging people to make responsible choices that protect the environment. It involves habits like recycling, saving water, conserving electricity, reducing plastic use, and planting trees. Environmental citizens also spread awareness, participate in community activities, and support environmental policies. When more people adopt eco-friendly behaviour, pollution decreases, natural resources are conserved, and sustainable development becomes possible for all communities.

Unit 6: Digital Documentation (Advanced)

Q1. What are styles in LibreOffice Writer?

Ans. Styles in LibreOffice Writer are predefined sets of formatting instructions that can be applied to text, paragraphs, pages, frames, lists, or tables. They help maintain consistency throughout a document by using the same formatting across multiple sections. Styles save time because instead of formatting each part manually, users can apply a predefined style with one click. They also make editing easier, because changing a style automatically updates every part of the document that uses it. This makes documents more organized and professional.

Q2. What is the importance of using page styles?

Ans. Page styles help define the overall layout of a page, such as page size, orientation, margins, headers, footers, and page numbering. They allow users to apply consistent formatting to multiple pages without adjusting each one individually. Page styles are especially useful in long documents like reports, essays, and projects. If you create separate page styles for title pages, chapters, or annexures, the formatting stays uniform. When a page style is modified, all connected pages update automatically, making the document easier to manage and more professional.

Q3. What is the purpose of list styles in LibreOffice Writer?

Ans. List styles control the formatting of numbered and bulleted lists. They help maintain consistency in spacing, bullet symbols, numbering patterns, indentation, and alignment. Instead of manually formatting each list item, users can apply a list style to instantly organize information. List styles are useful in documents that require structured information such as steps, procedures, points, and outlines. They help make content easy to read, visually appealing, and professionally formatted. Modifying a list style updates all lists that use it.

Q4. Explain the steps to insert an image from a file in LibreOffice Writer.

Ans. To insert an image from a file in LibreOffice Writer, begin by opening the document in which the image should appear. Go to the Insert menu on the top toolbar and click Image. An "Insert Image" dialog box will open. Browse your computer and locate the folder where the image is saved. Select the desired picture by clicking on it once. Then click the Open button at the bottom of the dialog box. The selected image will instantly appear in your document at the position of the cursor. Once inserted, the image can be resized, moved, or formatted as needed.

Q5. Describe the steps to crop an image in LibreOffice Writer.

Ans. To crop an image in LibreOffice Writer, first insert or select the image you want to edit. Right-click on the image and choose Properties from the context menu. In the Image Properties dialog box, click the Crop tab. You will see several cropping controls such as Left, Right, Top, and Bottom. Enter the desired values or use the arrow buttons to crop specific sides of the image. You may also choose Keep Scale or Keep Image Size depending on your need. Once adjustments are made, click the OK button. The image will appear cropped in the document, keeping only the important portion.

6. What are drawing objects in LibreOffice Writer?

Ans. Drawing objects are graphical shapes that users can insert into documents to enhance presentation. These include rectangles, ellipses, lines, arrows, flowchart symbols, block arrows, callouts, stars, and text boxes. They help add visual meaning, highlight information, or illustrate ideas. Drawing objects can be resized, coloured, grouped, rotated, and positioned anywhere in the document. LibreOffice Writer provides a dedicated Drawing toolbar that gives quick access to these shapes. Using drawing objects makes documents more creative, informative, and attractive.

Q7. What is text wrapping around an image?

Ans. Text wrapping refers to how text flows around an image or drawing object inside a document. Instead of leaving blank spaces, wrapping allows text to automatically adjust its position around the image. LibreOffice Writer provides several wrapping options such as Parallel, Square, Tight, Wrap Through, and None. Choosing the right wrapping style makes the document look neat and balanced. Wrapping helps combine images smoothly with written content, making pages visually appealing and easier to read.

Q8. Write the steps to create a new style using New Style from Selection.

Ans. To create a new style using "New Style from Selection," begin by formatting a piece of text with the fonts, colours, and spacing you want. Select this formatted text. Now open the Styles Sidebar by clicking the Styles icon on the right. At the top of the Styles panel, click the Styles Actions drop-down arrow. From the menu, choose New Style from Selection. A dialog box appears asking you to enter a name for your new style. Type the desired name and click OK. The new style will now appear in the list and can be applied to any part of the document instantly.

Q9. Explain the steps to group drawing objects in LibreOffice Writer.

Ans. To group drawing objects, first insert two or more shapes such as rectangles, arrows, or smiley faces. Use the mouse to draw a selection box around all the objects you want to group. Alternatively, hold the Shift key and click each object individually. Once selected, go to the Format menu and choose Group → Group from the submenu. The objects will now behave as a single unit. This allows you to move, resize, or apply formatting to all the grouped objects at once. Grouping is useful when creating diagrams or designs that need elements to stay together.

Q10. What is anchoring in LibreOffice Writer?

Ans. Anchoring determines how an image or drawing object stays connected to the surrounding text or page. When you anchor an object, you decide whether it should stay attached to a page, a specific paragraph, a character, or behave as a character within a line of text. The four types of anchoring are To Page, To Paragraph, To Character, and As Character. Anchoring ensures that objects do not shift unexpectedly when text is added or removed. It helps maintain proper layout and is especially useful in documents containing many images or visual elements.

Unit 7: Electronic Spreadsheet (Advanced)

Q1. What are advanced spreadsheet functions and why are they useful?

Ans. Advanced spreadsheet functions are powerful tools that help users perform complex calculations, manage large datasets, and analyze information more effectively. These include mathematical, logical, statistical, text, and lookup functions that reduce manual effort and minimize errors. They help convert raw data into meaningful insights, making tasks like budgeting, data analysis, business reporting, and academic work easier and faster. By using these functions, users can automate repetitive tasks and achieve more accurate results.

Q2. What is data filtering in spreadsheets?

Ans. Data filtering is a process used to display only the rows that meet specific conditions while hiding the rest temporarily. It allows users to focus on particular values, categories, or text patterns without deleting any data. Filters help in handling large datasets by making it easier to analyze, compare, and understand relevant information. Spreadsheet software provides AutoFilter options that let users filter data numerically, alphabetically, or by custom conditions, improving efficiency during data management.

Q3. What is Conditional Formatting?

Ans. Conditional formatting automatically changes the appearance of cells based on predefined rules or conditions. It helps highlight important information by applying colours, icons, or data bars to specific values. For example, it can show high values in green, low values in red, or duplicate entries in a different colour. This makes large datasets easier to study, helping users quickly identify trends, patterns, and exceptions. It improves visual presentation and supports faster understanding of data.

Q4. Write the steps to apply AutoFilter in a spreadsheet.

Ans. To apply AutoFilter in a spreadsheet, begin by opening the sheet that contains the data you want to filter. Make sure your data is arranged with proper column headings. Select the header row and click the Data menu at the top of the screen. From the list of options, choose Filter and then click AutoFilter. Small drop-down arrows will appear next to each column heading. Click any arrow to select the condition or value you want to filter. Only the rows matching your selected criteria will be displayed. This method helps you quickly analyze and sort large datasets without removing any content.

Q5. What is sorting in a spreadsheet and what are its types?

Ans. Sorting in a spreadsheet means arranging data in a particular order to make it easier to read and analyze. It places rows in a specific sequence based on the values in one or more columns. There are two main types of sorting: ascending, which arranges data from A to Z or smallest to largest, and descending, which arranges data from Z to A or largest to smallest. Sorting helps organize names, numbers, dates, and categories, making information clearer and more useful for analysis.

Q6. What is Goal Seek in spreadsheets?

Ans. Goal Seek is a special tool that helps users determine the input value needed to achieve a specific result in a formula. Instead of manually testing different values, Goal Seek calculates the correct input automatically. For example, if you want a total of 500 and must find the missing value that completes the sum, Goal Seek will determine it for you. It is helpful in budgeting, forecasting, target-setting, and financial planning. This tool reduces trial-and-error and provides quick, accurate results.

Q7. Explain the steps to use Goal Seek in a spreadsheet.

Ans. To use Goal Seek in a spreadsheet, start by entering your values and a formula that calculates the result you want to change. Identify the cell that contains the formula result. Go to the Tools menu and click Goal Seek. A dialog box will open with three fields. In the Set Cell box, select the cell containing the formula. In the To Value box, type the desired result you want. In the By Changing Cell box, select the cell that Goal Seek should adjust. Click OK, and the spreadsheet will automatically find the correct input. This feature allows you to solve backward calculations quickly and accurately.

Q8. What is a Scenario in spreadsheet software?

Ans. A Scenario is a collection of different sets of input values that show possible outcomes for the same spreadsheet model. It allows users to compare "what-if" situations without creating separate files. Scenarios are useful in planning, budgeting, and forecasting because they help users examine different conditions, such as best case, worst case, or expected results. Each scenario stores different values for specified cells, and users can switch between them to instantly view how results change. This supports better decision-making and analysis.

Q9. Write the steps to create a Scenario in a spreadsheet.

Ans. To create a Scenario, begin by preparing a spreadsheet with the data that will vary across different situations. Select the cells whose values you want to change in each scenario. Go to the Tools menu and click the Scenarios option. A dialog box will appear asking you to enter a name for the scenario. Type a name such as Best Case or Low Sales and click OK. The scenario will be saved with the current values. To add more scenarios, enter different values in the same cells and repeat the process. You can then switch between scenarios to compare results quickly and easily.

10. Write the steps to create a chart from spreadsheet data.

Ans. To create a chart from spreadsheet data, begin by selecting the cells that contain the data you want to visualize, including the headings. Click the Insert menu and choose Chart. The Chart Wizard will appear, allowing you to select the chart type, such as column, pie, bar, or line. Click Next to adjust data ranges, series, and labels. After reviewing your selections, click Finish to insert the chart into your spreadsheet. You can then move, resize, or format the chart to make your data more visually appealing and easier to understand.

Unit 8: Database Management System

Q1. What is a database? Explain with an example.

Ans. A database is an organised collection of data that is stored in a systematic manner so it can be easily accessed, updated, and managed. It stores information in tables made of rows and columns. For example, a school database may contain a table with fields such as Roll No., Name, Class, Age, and Marks. Each row represents one student, and each column represents a specific detail. A database helps in quickly searching information like “students who scored above 85 marks” without going through each record manually, making data handling easier and faster.

Q2. What is the difference between data and information?

Ans. Data refers to raw facts and figures such as numbers, names, dates, or symbols that do not have meaning by themselves. Examples include marks like 45, 78, 92 or values like ₹500, ₹2000. Information is processed data that has meaning and helps in decision-making. For example, when students' marks are arranged into a report card showing total, percentage, and grade, it becomes information. Data is like raw ingredients, while information is like the cooked food that is ready to use.

Q3. What is a DBMS? Mention two advantages.

Ans. A Database Management System (DBMS) is software used to store, organise, retrieve, and manage data safely. It acts like a caretaker of the database, ensuring data is secure, consistent, and easy to access. Examples include MySQL, Oracle, and LibreOffice Base. DBMS reduces data redundancy because all data is stored in one central location, and changes made once are updated everywhere. It also ensures data security by allowing only authorised users to access important information like bank records or hospital details.

4. Explain the hierarchical and network data models.

Ans. The hierarchical data model arranges data in a tree-like structure, where one parent can have multiple child records, but each child has only one parent. For example, in a company database: Company → Departments → Employees. The network data model is more flexible because it allows many-to-many relationships, meaning one record can be linked to many others. For example, an employee may work on multiple projects, and each project may have several employees. Both models help organise data but differ in flexibility and structure.

Q5. What is a primary key? Explain with an example.

Ans. A primary key is a field or combination of fields that uniquely identifies each record in a table. It cannot be empty and no two rows can have the same primary key value. For example, in a Student table, Roll Number is used as the primary key because each student has a unique roll number. Similarly, in an Employee table, Employee ID can be used as the primary key. Primary keys help avoid duplication, maintain accuracy, and make searching much faster.

Q6. Write the steps to open LibreOffice Base in Windows.

Ans. To open LibreOffice Base in Windows, begin by pressing the Windows key on your keyboard. In the search bar that appears, type “LibreOffice Base.” The application will show up in the search results. Click it to open. A Database Wizard dialog box appears automatically, showing the option “Create a new database” already selected. Click Next to proceed, and the next page asks whether to register the database and open it for editing. After confirming these options, click Finish. A Save As dialog box appears where you must choose a location and type a file name. After clicking Save, the database opens and is ready for use.

Q7. Write the steps to create a table using the Table Wizard.

Ans. To create a table using the Wizard in LibreOffice Base, first open your database and click Tables from the left panel. In the Tasks pane, choose “Use Wizard to Create Table.” The Table Wizard window opens. Select a category like Business or Personal, and then choose a sample table such as Employees. From the list of fields, move the required fields into the Selected Fields box. Click Next and choose suitable data types for each field. After this, click Next to set a primary key, selecting “Automatically add a primary key.” Click Next again, type a name for your table, and ensure “Insert data immediately” is selected. Click Finish to create the table.

Q8. Write the steps to enter data into a table in LibreOffice Base.

Ans. To enter data into a table, first open your database and double-click the table name to open it in Data View. You will see rows (records) and columns (fields). Click inside the first field of the empty row and type the required value, such as Employee ID. Press Enter to automatically move to the next field. Continue typing values for all fields, such as Name, Designation, Address, and Contact Number. After completing the row, press Enter again to save the record automatically, and a new blank row appears. You can now enter additional records in the same manner. When finished, close the Data View window.

Q9. Write the steps to sort data in a table.

Ans. To sort data in a table, start by opening the database and double-clicking the table you want to sort. When the table opens, click inside the column you want to arrange, for example, Employee_Name. At the top toolbar, locate the Sort Ascending and Sort Descending buttons. Click Sort Ascending to arrange the values from A to Z or smallest to largest. To sort in reverse order, click Sort Descending. The displayed rows rearrange instantly without changing the actual stored data. You can repeat the same process with any column such as Address, Salary, or Contact Number. Sorting makes it easier to locate specific records quickly.

10. What is a relational database? Explain with an example.

Ans. A relational database is a collection of multiple tables that are connected through common fields. Each table stores different types of information, but they work together to represent complete data. For example, a school database may have a Student table with Roll No., Name, and Class ID, and a Class table with Class ID, Class Teacher, and Room No. The field Class ID links the two tables, showing which student belongs to which class. This avoids duplication, keeps data accurate, and makes searching very efficient.

UNIT 9: Maintain a Healthy, Safe & Secure Working Environment

Q1. What is occupational health?

Ans. Occupational health refers to the branch of health science that deals with the physical, mental, and social well-being of workers in a workplace. Its main purpose is to prevent work-related injuries, illnesses, and stress by identifying possible hazards and ensuring safe working conditions. Occupational health encourages regular health check-ups, training, proper use of safety equipment, and awareness of workplace risks. It focuses not only on preventing accidents but also on creating a supportive environment where workers feel valued, healthy, and protected. By maintaining good occupational health practices, organizations improve employee productivity, reduce absenteeism, and create a positive and safe workplace culture.

Q2. What is the importance of the Occupational Safety, Health and Working Conditions (OSHWC) Code?

Ans. OSHWC Code is important because it brings together and simplifies several older labour laws to provide clear and uniform safety standards for all workplaces. It ensures that employers maintain proper working conditions, adequate facilities, clean environments, and protective equipment for employees. The Code emphasises the health, safety, and welfare of workers in different types of establishments. It also introduces modern rules for working hours, emergency preparedness, and accident reporting. By implementing this Code, companies reduce workplace risks, protect employee rights, and create a safer and more organized working environment, ultimately improving efficiency and reducing workplace-related problems.

Q3. What is Personal Protective Equipment (PPE) and why is it necessary?

Ans. PPE refers to specially designed gear such as helmets, gloves, safety shoes, goggles, masks, earplugs, and full-body suits that protect workers from workplace hazards. PPE acts as a barrier between the worker and potential dangers like chemicals, loud noise, flying particles, extreme temperatures, and electrical risks. It is necessary because not all hazards can be completely removed from a workplace. PPE reduces the chances of injuries, long-term health problems, and fatal accidents. Using proper PPE also ensures compliance with safety standards and helps employees feel more confident and secure while performing tasks that involve risk.

Q4. What is meant by good posture and why is it important at the workplace?

Ans. Good posture means maintaining the body in a balanced and natural alignment while sitting, standing, or performing work. It involves keeping the spine straight, shoulders relaxed, and weight evenly distributed. In the workplace, especially where people sit for long hours or perform repetitive tasks, posture becomes extremely important. Proper posture reduces stress on muscles and joints, prevents neck and back pain, and lowers the risk of long-term musculoskeletal disorders. It improves breathing, concentration, and overall comfort, making workers more productive. Maintaining good posture also reduces fatigue, helps prevent injuries, and supports long-term physical well-being.

Q5. What is workplace stress?

Ans. Workplace stress refers to the physical and emotional strain that employees experience due to pressure, heavy workloads, long working hours, lack of support, or unsafe conditions. Stress affects a person's concentration, confidence, and motivation. When unmanaged, it can lead to anxiety, irritability, poor performance, frequent mistakes, and even health issues such as headaches or high blood pressure. Workplace stress not only impacts individual well-being but also reduces overall productivity in an organisation. Creating a supportive work environment, encouraging breaks, improving communication, and managing workload effectively are essential to reducing workplace stress and ensuring employees remain healthy and focused.

Q6. Why is air quality important in the workplace?

Ans. Air quality in the workplace is important because employees need clean and safe air to stay healthy and perform efficiently. Pollutants such as dust, smoke, chemicals, and gases can affect breathing and cause irritation, fatigue, allergies, or long-term respiratory diseases. Poor air quality also reduces alertness and increases the risk of mistakes. Monitoring air quality helps identify harmful substances and encourages corrective measures like ventilation, filtration, or use of air purifiers. Ensuring good indoor air quality improves employee comfort, reduces sickness, and creates a healthier work environment where people can work safely without exposure to harmful airborne particles.

Q7. What is the Air Quality Index (AQI)?

Ans. The AQI is a numerical scale used to measure how clean or polluted the air is in a particular area. It categorizes air quality into levels such as Good, Satisfactory, Moderate, Poor, Very Poor, and Severe. AQI is based on pollutants like PM10, PM2.5, NO₂, SO₂, CO, and ozone. A lower AQI value means the air is safe to breathe, while higher values indicate harmful pollution levels. Understanding AQI helps workplaces take safety decisions such as restricting outdoor work, using masks, or improving ventilation. It ensures that employees are protected from dangerous air conditions that may affect health.

Q8. Why is workplace cleanliness important?

Ans. Workplace cleanliness is important because it helps create a safe, organized, and hygienic environment for employees. A clean workplace reduces the risk of slips, trips, falls, and accidents caused by clutter or spills. It also prevents the spread of germs, dust, and allergens that can cause sickness. Clean surroundings improve employee morale, make workstations more comfortable, and enhance productivity. Regular cleaning also increases the life of equipment by preventing dust buildup. A tidy workplace reflects professionalism, builds trust with clients or visitors, and encourages employees to take pride in their work environment, leading to a healthier and more efficient organisation.

Q9. What is the importance of ergonomics in the workplace?

Ans. Ergonomics is the science of designing tools, equipment, and workspaces to fit the physical needs of workers. Its importance lies in reducing the risk of injuries, improving comfort, and increasing efficiency. Ergonomic furniture and tools minimize strain on the body by supporting natural posture and reducing repetitive stress on muscles and joints. This helps prevent conditions like back pain, neck strain, and eye fatigue. Ergonomics also improves productivity because employees can work comfortably for longer periods. By investing in ergonomic workspaces, organizations promote employee well-being, reduce medical costs, and create a safer, more supportive working environment.

Q10. What is workplace violence and why is it a concern?

Ans. Workplace violence includes acts such as threats, harassment, bullying, verbal abuse, or physical attacks that occur at the workplace. It is a serious concern because it creates fear, stress, and emotional harm for employees. Workplace violence lowers morale, reduces productivity, and can lead to long-term psychological effects such as anxiety or depression. It disrupts teamwork, damages trust, and creates an unsafe environment. Organisations must promote respect, enforce strict rules, and encourage reporting of such incidents. Preventing workplace violence helps maintain a secure and positive work culture where employees can perform their duties with confidence and peace of mind.