

Part-A: Employability Skills

1. Methods of Communication

Unit I: Communication Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?**Section A (Objective Type Questions)**

- A. 1. iv. 2. i.
B. 1. True 2. False

Section B (Subjective Type Questions)

- A. 1. The agenda of business meetings includes different aspects such as planning out business strategies, management updates or organizational decisions.
2. Two important elements of communication process include:
• **Transmitting:** It refers to the process in which the sender transmits the message through one medium or another.
• **Listening:** It refers to the process in which listener receives or understands the message.
- B. Notices/Posters

2. Verbal Communication

Unit I: Communication Skills-II

Unsolved Exercise ?**Section A (Objective Type Questions)**

- A. 1. ii 2. i 3. ii
B. 1. Public Communication 2. nervous

Section B (Subjective Type Questions)

- A. 1. Following are the disadvantages of verbal communication:
• It does not provide a written record, making it difficult to refer back the details later.
• Detailed discussions can be time consuming.

2. Clarity can be ensured during information sharing by speaking audibly as well as at a moderate pace along with avoiding repetition of sentences.

B. The type of verbal communication used is public communication.

The leader can enhance communication by:

- Using clear and powerful language.
- Speaking confidently and with appropriate body language.
- Engaging the audience with rhetorical questions or repetition.

3. Non-Verbal Communication

Unit 1: Communication Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. ii 2. ii 3. iv
B. 1. Touch 2. Non-Verbal

Section B (Subjective Type Questions)

- A.** 1. Touch creates a sense of connection, provide comfort and express feelings more effectively than words.
2. Eye contact shows attentiveness, builds trust, and helps convey sincerity. It also indicates interest and engagement in a conversation.
- B.** Bhupesh should make direct eye contact, maintain a respectful posture, and speak clearly. These non-verbal cues will help him get and keep the teacher's attention.

4. Communication Cycle and Importance of Feedback

Unit 1: Communication Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. iv 2. i
B. 1. Descriptive 2. detailed, specific

Section B (Subjective Type Questions)

- A.** 1. Feedback is considered as the backbone of communication as it ensures that the message has been comprehended by the receiver, it enables to remain focused on goals and it enables to take better decisions to improve and increase performance.



2. Following are the qualities of good feedback:

- Feedback should be specific.
- Feedback should be received on time.
- Feedback given should be polite.
- Feedback sharing needs to be a regular process.

B. The part of the communication cycle happening is Decoding. Amisha is converting the encoded message (in the form of text) into an understandable language.

5. Barriers to Effective Communication

Unit 1: Communication Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. ii 3. iii
- B. 1. Language Barriers 2. concise

Section B (Subjective Type Questions)

- A. 1. Noise is an undesirable input due to which communication barriers enter the communication process and cause distortion of the message.
2. Correct communication should convey right things without misleading the audience.
- B. Linguistic barrier, Rahul can make the explanation more effective by using simple words and avoiding jargons.

6. Writing Skills—Parts of Speech

Unit 1: Communication Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. i
- B. 1. Conjunction 2. Adjective



Section B (Subjective Type Questions)

- A. 1. Articles help make general things specific by defining whether a noun is referring to something specific or general. For example, "I saw a dog in the park" (general, any dog) vs "I saw the dog in the park" (specific, referring to a particular dog known to both the speaker and listener).
2. The exclamation mark is used to express strong emotions or emphasize an exclamation. For example, "What a beautiful sunset!"
- B. "Quickly" is an adverb. It modifies the verb "finished" by describing how the action was performed.

7. Writing Skills—Sentences

Unit 1: Communication Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. i
- B. 1. supporting 2. paragraph

Section B (Subjective Type Questions)

- A. 1. i. Exclamatory ii. Imperative iii. Interrogative
2. There are four elements in a paragraph named as Unity, Order, Coherence and Completeness.
- B. My favourite cuisine is South Indian cuisine.

South Indian cuisine

It is known for its rich flavours, aromatic spices and diverse variety of vegetarian and non-vegetarian dishes. This cuisine primarily originates from the states of **Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, and Telangana**, each offering unique culinary traditions. Most of the typical South Indian meal is centered around rice, generally paired with flavourful curries, tangy chutneys, and crispy dosas or soft idlis. Coconut, tamarind, curry leaves, mustard seeds, and dried red chillies are the staple ingredients, adding a unique taste to the food. Items like **sambar, rasam** are common across the region, while delicacies such as **Hyderabad biryani, Chettinad curry, and Kerala's appam with stew** showcase regional specialties.

The cuisine has a strong emphasis on fermented foods, which not only enhance flavour but also improve digestion and nutrition. Breakfast dishes like **idli, dosa, and upma** are light yet filling, while meals often include an assortment of **vegetable curries, lentils, and pickles** served on banana leaves for an authentic experience. South Indian sweets like **Mysore pak, payasam** add a perfect balance of sweetness to the otherwise spicy and tangy flavours. With its balance of health, taste, and tradition, South Indian cuisine continues to be celebrated both in India and across the globe.



1. Stress Management

Unit 2: Self-Management Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. ii 3. iii
B. 1. anxiety 2. Negative 3. mental
C. 1. True 2. False 3. False

Section B (Subjective Type Questions)

- A. 1. ABC of stress management includes:
- **Adversity:** Be aware of the adversities or stressful events that is causing stress.
 - **Beliefs:** Trust the way you handle and deal a situation.
 - **Consequences:** Know the outcomes of the events and use stress management tools to overcome them.
2. **Physical symptoms:** Breathlessness, dry mouth, sweaty palms, etc.
Mental symptoms: Irritation, impatience, anxiety, depression, etc.
3. Emotional intelligence is the skill of understanding, using and managing emotions effectively. It involves being aware of your emotions, using them to think and solve problems effectively and regulating emotions to maintain emotional balance.
4. The following are the agents that can cause stress:
- **Mental:** Students often experience mental stress when they struggle with their studies or face high self-expectations, leading to anxiety and pressure.
 - **Physical:** Adolescents may face physical stress due to increased self-consciousness about their appearance and the challenges associated with hormonal changes.
 - **Social:** This type of stress occurs due to peer pressure, family discords, status show off etc.
 - **Financial:** Young individuals may experience stress when they seek financial independence, which can lead to pressures related to managing money and achieving financial stability.
5. Few stress management techniques include Nature walks, Time management, Academic planning, etc. but the most effective one is the academic planning as it enables one to complete project on time.
- B. To manage stress, Aisha can prioritise tasks, practise deep breathing, take short breaks, talk to someone, and engage in relaxing hobbies like music or painting.



2. Self-Awareness—Strength and Weakness Analysis

Unit 2: Self-Management Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. ii 3. ii
B. 1. True 2. False 3. False

Section B (Subjective Type Questions)

A. 1.

Interests	Abilities
Interests refer to activities, subjects that attract or engage our attention and curiosity.	Abilities refer to the innate or acquired skills that enable to perform tasks effectively.
Interests can cover a wide range of areas from hobbies and leisure activities to academic subjects or professional fields.	Abilities are specific to certain tasks or domains such as analytical abilities, artistic skills or physical coordination.
Interests can change and evolve based on experiences, exposure and personal growth.	Abilities are relatively stable over time and less likely to change as compared to interests, although they can be enhanced or refined with effort.

2. Here are some examples of strengths:

- **Creativity:** Coming up with innovative ideas and solutions.
- **Communication:** Expressing ideas clearly and listening attentively.
- **Organisation:** Planning and managing tasks effectively.

- B. Shalini can start by reflecting on her current habits to identify what causes disorganisation. By acknowledging this weakness, she can set small goals like creating daily task lists, using planners or apps, and seeking feedback on her progress. This self-awareness will help her adopt better habits and become more organised over time.

3. Self-Motivation

Unit 2: Self-Management Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. iv
B. 1. False 2. True



Section B (Subjective Type Questions)

- A. 1. Self-motivation is the inner drive that pushes us to take action and pursue our goals, regardless of external influences. For example, suppose you want to learn any instrument/sports of your choice then even if no one tells you to practice, you practice it every day because you want to get better at playing.
2. Following are the qualities of self-motivated people:
- **Resilient:** They bounce back from setbacks and failures, using them as learning opportunities rather than letting them derail their progress.
 - **Proactive:** They take initiative and are proactive in pursuing their goals, rather than waiting for opportunities to come to them.
 - **Adaptable:** They are flexible and adaptable to changes and challenges, adjusting their approach as needed to continue moving forward.
- B. Key skills and strategies to be emphasized are:
- Find out the strengths by identifying likes, dislikes, etc.
 - Set and focus on goals by fixing your targets and using all energy to achieve them.
 - Develop a plan by planning and setting time line to meet your goals.
 - Stay loyal to your goals by continuing work in difficult times or stress.

4. Self-Regulation—Goal Setting Unit 2: Self-Management Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. ii
- B. 1. True 2. True

Section B (Subjective Type Questions)

- A. 1. SMART stands for Specific Measurable Achievable Realistic Time-bound.
2. Goals should be realistic and attainable, aligning with your abilities, resources, and circumstances. For example, spending two hours every day after school to revise for exams is more achievable than attempting to revise an entire year's syllabus in one day.
- B. Aditi can set a SMART goal by saving ₹1000 every month for 5 months. This is specific (buying a bicycle), measurable (₹5000 needed), achievable and realistic based on her savings, and time-bound with a 5-month deadline.

5. Self-Regulation—Time Management

Unit 2: Self-Management Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. ii
B. 1. False 2. False

Section B (Subjective Type Questions)

- A. 1. Regular breaks help refresh the mind, reduce fatigue, and improve concentration and productivity.
2. We can use technology tools like Calendar, reminders and task management apps to schedule activities and deadlines.
- B. Pankaj can avoid distractions by using a study schedule, setting fixed time slots for revision, turning off social media notifications, and using apps like timers or planners to stay focused and manage time effectively before his exam.

1. Basic Computer Operations

Unit 3: ICT Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. iii 3. ii 4. ii
B. 1. hardware 2. Operating System 3. Basic Input/Output System 4. Single-user
C. 1. True 2. True 3. False 4. True

Section B (Subjective Type Questions)

- A. 1. The operating system performs the following functions in a device:
- **Device Management:** OS directly controls the operation of the input-output devices, like controlling the action of the printer, or the CD-ROM drive.
 - **Memory Management:** OS co-ordinates and controls the use of memory in a computer.
 - **File Management:** Helps organise, find, and protect files on the computer.
 - **User Interface:** Provides a way for users to interact with the computer and its programs easily.



2. ICT refers to the wide range of tools and technologies that enable us to gather, store, process and share information electronically. These technologies include computers, smartphones, the internet, software applications and digital platforms.
 3. The operating system is crucial for computers as it acts as a mediator between the hardware, software, and users. This interface can be graphical, such as the desktop environment, or command-line-based, where users enter text commands to execute tasks. One of the primary functions of the operating system is to establish standards for how application programs interact with the computer's hardware.
 4. We can prevent others from using our computer by setting a strong password, locking the screen when not in use, enabling security settings and antivirus, and disabling guest access.
 5. i. **Desktop:** It is the graphical screen containing icons and pictures that gets displayed when a user logs on to a graphical operating system.
ii. **Icons:** These are the buttons on the desktop in the form of small pictures with some text written below them.
- B. BIOS might not be working properly.

2. Performing Basic File Operations

Unit 3: ICT Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. iii 3. i
- B. 1. directories 2. orderliness
- C. 1. True 2. False 3. False

Section B (Subjective Type Questions)

- A. 1. Folders are virtual containers that enable to categorise and store related files in a structured manner. A folder can contain files as well as folders within itself.
2. Steps to create a file are:
Step 1: Navigate the location, in which you want to create a file.
Step 2: Right click on the empty area.
Step 3: Select the 'New' option
Step 4: Select the desired type of file that you want to create.
Step 5: Type the desired file name of the file.
3. Steps to move a file are:
Step 1: Right click on the file that has to be moved and then select 'Cut' option.
Step 2: Right click on the desired location and then select 'Paste' option from the context menu.



4. Steps to copy a file are:

Step 1: Right click on the file that has to be copied and then select 'Copy' option.

Step 2: Right click on the desired location and then select 'Paste' option from the context menu.

- B.** The file system will help Riya organise her documents, images, and videos by allowing her to create separate folders for each category or project. This structure will make it easier to locate files quickly, avoid clutter, and ensure better file management. It also protects her data by keeping related files grouped and reducing the risk of accidental deletion.

3. Computer Care and Maintenance

Unit 3: ICT Skills-II

Lab Assignment 'N Activity Page 94

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. iv 2. ii 3. iii
B. 1. organised 2. temperature
C. 1. True 2. False

Section B (Subjective Type Questions)

- A.** 1. Taking regular backup of your computer data is crucial because it protects against any kind of data loss due to hardware failures, malware attacks, accidental deletions, or system crashes. Backup ensures that important files, documents, and settings can be restored quickly, minimising loss and act as an alternative source for easy accessibility.
2. The purpose of using antivirus software is to prevent attack of viruses in your system as well as it scans and removes viruses that have already sneaked in your system to keep it safe.
3. Computer's performance can be increased by regular cleaning of the unnecessary files using disk cleaner software. Regularly delete the unnecessary files present in the hard drive to free up the space.
4. Following actions should be done on a monthly basis:
- Take backup of the data present in the hard drive.
 - Uninstall most rarely used software.
 - Installed software must be updated regularly.
 - To avoid disk errors, delete temporary internet files.
 - Change passwords frequently.



- B. If you receive an email with a suspicious attachment from an unknown sender, do not open the attachment. Instead, delete the email immediately or mark it as spam. Run a full system scan using updated antivirus software and avoid downloading anything from untrusted sources.

4. Computer Security and Privacy

Unit 3: ICT Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. ii 3. iii 4. iv 5. iii
- B. 1. Master Boot Record (MBR) 2. executable 3. spammer 4. Sunday and Cascade
- C. 1. False 2. True

Section B (Subjective Type Questions)

- A. 1. A Trojan horse is a type of malicious software or malware that disguises itself i.e., appears to be a useful software program but once it reaches a computer, it starts behaving like a virus and destroying data. They are activated when the user is busy interacting with entertaining programs or with interface like computer games. Some examples of Trojan are Linux, Wifatch, Infostealer, Kronbank, etc.
2. Following are the ways to protect data:
- Update the Antivirus.
 - Use Passwords to login to your computer.
 - Data should be encrypted to prevent unauthorised usage.
 - Use secured websites for browsing or any kind of transaction.
3. Cookies contain information about your visit to the web page, or record your login information. Cookies can enhance your browsing experience by remembering your preferences and streamlining online tasks.
4. Encrypt data refers to the encryption of confidential data to prevent unauthorised usage. It requires usage of decryption password to decode it.
5. Following are the steps to remove files of a temporary folder.
- Step 1:** Press 'Windows+R' key on the keyboard. Run dialog box appears on the screen.
- Step 2:** Type '%temp%' in the Open box.
- Step 3:** Click on 'OK' button. Temp folder appears on the screen.
- Step 4:** Press 'Ctrl+A' to select all the files and folder in the Temp folder.
- Step 5:** Press 'Shift+Delete' to permanently delete the files.
- Step 6:** Click on 'Yes' button.

- B. AVG antivirus



1. Entrepreneurship and Society

Unit 4: Entrepreneurial Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. i
- B. 1. customer 2. supply chains 3. Woman entrepreneurship
- C. 1. True 2. True

Section B (Subjective Type Questions)

- A. 1. Entrepreneurs have a great impact on our society in various forms:
- **Create jobs**- They identify the opportunities in the market and take risk to capitalize on them and generate opportunities across various sectors.
 - **Sharing of wealth**- Successful entrepreneurs contribute significantly to wealth distribution through various channels such as they pay taxes on the profits earned as well as personal income. They donate a substantial amount of money for various charitable causes, educational institutions, etc.
 - **Lower price of products**- Entrepreneurs drive down the prices of goods and services through competition and innovation. They compel existing businesses to improve efficiency, reduce cost and offer better value to consumers by introducing new products in the market.
2. Entrepreneurs satisfy customers' needs, wants, and demands by recognising them and taking appropriate measures. This can be understood as follows:
- **Needs**: An entrepreneur ensures its product or service is essential to the target market. Meeting these needs is crucial for initial market entry and survival, such as offering essential healthcare products or staple foods.
 - **Wants**: These are opportunities for an entrepreneur to differentiate and add value to the basic offerings by aligning products with consumer desires and preferences.
 - **Demands**: It represent the potential market size when consumers are not only interested in a product but also have the financial capability and readiness to purchase it. Entrepreneur successfully taps into demands means identifies and targets segments with the highest purchasing power and interest in the product.
3. Following are the key tasks performed by the entrepreneur:
- Entrepreneurs meet customer needs by offering products or services that ease their lives, solve specific problems or fulfill desires ensuring quality and reliability to satisfy expectations.



- Entrepreneurs support use of local materials to support local economies, reduce environmental impact through shorter supply chain.
 - Entrepreneurs contribute to society by creating jobs, improving living standards through innovative products or services and supporting community initiative to promote social development and wellbeing.
4. Agriculture entrepreneurship is a kind of entrepreneurship which focuses on marketing and producing agricultural inputs and products, benefiting farmers with innovative and cost-effective farming techniques.
- B. Social Entrepreneurship.**

2. Qualities and Functions of an Entrepreneur

Unit 4: Entrepreneurial Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. i 2. i 3. ii
- B.** 1. True 2. False

Section B (Subjective Type Questions)

- A.** 1. The most important function of an entrepreneur can be regarded as innovation of new ideas, products or methods that can be introduced in the market which can meet market demands as well as bring progress in the development process.
2. The two basic roles of an entrepreneur are as follows:
- They act as a job creator as they provide employability to a large number of people. They establish a business entity by investing their own resources as well as taking capital from investors as well as public.
 - Entrepreneur set up new businesses and industrial units leading to regional development which in turn leads to development of different infrastructures like roads, electricity, water supply, etc.
- B.** Dividing Income.

3. Myths about Entrepreneurship

Unit 4: Entrepreneurial Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. i 2. iv
- B.** 1. True 2. True



Section B (Subjective Type Questions)

A. 1.

Aspect	Businessman	Entrepreneur
Focus	Manages and operates an established business.	Identifies and exploits new business opportunities.
Role	Oversees day-to-day operations, resource management.	Involved in all aspects of business creation and growth.
Risk	Takes calculated risks within existing business framework.	Embraces high levels of risk in pursuit of innovation.
Innovation	Focuses on incremental improvements within the business.	Introduces novel solutions, technologies, or models.
Example	CEO of a manufacturing company ensuring profitability.	Elon Musk, creating SpaceX and Tesla, pushing boundaries.

2. Following are the two common myths related to entrepreneurship:

- You need a lot of money to start a business.
- Every business idea needs to be unique or special.

B. I would tell Yatin that success doesn't need a unique idea. Many businesses succeed by offering better quality, service, or creativity. His T-shirt shop can stand out through design and customer experience.

4. Entrepreneurship as a Career Option

Unit 4: Entrepreneurial Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. ii
- B. 1. self 2. Survive
- C. 1. True 2. False

Section B (Subjective Type Questions)

A. 1. Following are the four disadvantages of entrepreneurship as a career:

- **Financial Risk:** High potential for financial loss, especially in the early stages.
- **Uncertainty and Stress:** Constant uncertainty about business success can lead to significant stress.
- **Long Hours:** Often requires long working hours and personal sacrifices.
- **Responsibility:** Full responsibility for the business's success or failure.

2. **Self-Employment:** It refers to individuals who work for themselves rather than for an employer. They may operate their own businesses, freelancing, consulting, or working as independent contractors. A self-employed person, always trying to make his/her business better by taking risks and trying new ideas is an entrepreneur.



Wage Employment: Wage employment refers to individuals who work for an employer and receive regular wages or salaries in exchange for their services. They typically follow a set schedule and report to a supervisor or manager. The people who work for some organisation and get paid for that are wage employed.

3. An entrepreneurship process begins with generating an innovative idea where various opportunities are explored through brainstorming and identifying the needs that are not yet addressed.

After that, research and planning is done through market research to understand the industry trends and competitors.

After that a comprehensive plan is developed to display the business strategy, target market, financial projections and operational plan. It enables to convert the structured approach into a successful business venture.

New venture creation includes aspects such as launching a company, taking a franchise, starting a new venture in a family business or commercializing a technology.

Let's understand the process of entrepreneurship with the help of an example:

Ashima, a MBA graduate once went to a village for some kind of field visit found that many people in her village are good at making earthen cookwares. She undertook a market research and found that demand for earthen cookwares is in demand for the health benefits as well as for its eco-friendly nature. She started planning and arranging for financial resources. She started selecting people who are good at this art of making earthen pots. Then started advertising about her startup through different portals such as social media posts, ads and hoardings of her new venture. This illustrates how entrepreneurship involves turning an idea into a successful business through planning, execution, and adaptation.

- B.**
1. I would explain that every successful entrepreneur takes calculated risks. With proper planning and support, the risk becomes manageable. I would encourage him to start small, gain confidence, and remind him that success often comes to those who take bold steps.
 2. I would advise Vedika to explore funding options like government schemes, startup incubators, or loans. If she's still unsure, she can take up a job to gain experience and save money while planning her startup on the side. This way, she can balance both stability and her dream.

1. Sustainable Development

Unit 5: Green Skills-II

ACTIVITY

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Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

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



- B. 1. global warming, climate change 2. conservation, sustainable
3. Deforestation 4. Reusing
- C. 1. True 2. False 3. True 4. False

Section B (Subjective Type Questions)

- A. 1. Sustainable development is a kind of development that meets the needs of the present world without finishing off or depleting the natural resources and saving and protecting the resources for future generation to meet the futuristic needs.
2. Following are the two basic problems related with sustainable development:
- Water:** The quality of fresh water supplies has been seriously harmed by pollution from industrial, agricultural and residential resources. Untreated sewage, chemicals are major causes of water pollution making water unfit for drinking or any other usage.
- Food:** The amount of fertile land to cultivate crops like wheat and rice has drastically reduced due to utilization of land for other uses.
3. **Renewable:** Solar energy, wind energy, water (hydropower), biomass
Non-renewable: Coal, petroleum, natural gas, uranium
4. The 17 sustainable development goals were formulated to address issues related to businesses, governments and society. They also address other issues such as Poverty, Gender Equality, Climate change, etc. The sustainable development goals serve as a global call to action urging each of us to take responsibility and contribute towards a positive change.
- B. The issue being addressed is Sustainable Goal 13: Climate Action.
This goal ensures immediate action to fight against climatic changes and emissions. It also leads to reduction in Greenhouse gas emissions, promoting climate education and awareness.

2. Our Role in Sustainable Development

Unit 5: Green Skills-II

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. iv 3. ii 4. iii
- B. 1. International Solar Alliance (ISA) 2. Science, Technology, Engineering, and Mathematics
3. hot water 4. legal
- C. 1. True 2. False



Section B (Subjective Type Questions)

- A. 1. Government has taken few initiatives to overcome the problem of sustainable development:
- **Mid-Day meal scheme** to address the problem of zero hunger by providing wholesome meal to the students to enhance their nutritional status and promoting consistent attendance and retention in school.
 - **Ayushman Bharat** program to offer health insurance coverage to over 10 crore families at a maximum cost of Rs. 5 lakh per family annually.
 - **Ujjwala yojana** was introduced to achieve the goal of lowering the health risks associated with using firewood and dung cakes by providing LPG connections to women from below poverty line.
 - **Beti Bachao Beti Padhao Yojna** to address the issue of decreasing child sex ratio and to support girls' education and empowerment.
2. Education is crucial for sustainable development because it provides an individual the knowledge, skills, and values needed to address environmental, social, and economic issues. It promotes critical thinking, innovation, and responsible decision-making, enabling people to adopt sustainable practices in their everyday life. Education also promotes awareness related to climatic changes, resource conservation, and social equity, empowering communities to take action for a more sustainable future.
3. A sustainable process is a way of doing things that meets our needs today without harming the environment or depleting natural resources for future generations. It is about using the resources wisely, reducing waste and thinking about how the actions are going to affect the planet in the long run.
4. The government's initiative related to goal 9 is Atal Innovation Mission (AIM) encourages entrepreneurship and innovation nationwide. This initiative attempts to establish an atmosphere that stimulates entrepreneurial thought and creativity. This project offers resources and support to assist small and medium sized businesses to expand and prosper.
- B. Lila's initiative contributes to SDG Goal 1 – No Poverty by creating economic opportunities in her village. Through her craft business, she not only supports herself but also empowers other women by providing training and materials. This improves income levels, enhances skills, and leads to a better standard of living for the community.



1. Introduction to Styles

Unit 1: Digital Documentation (Advanced) Using Libreoffice Writer

Lab Assignment 'N Activity Page 152-156

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. i 3. iii 4. iii 5. i
- B. 1. Enter 2. template 3. right side 4. select 5. Esc
- C. i. Both A and R are true and R is the correct explanation of A.
- D. i. Statement 1 is true , Statement 2 is true

Section B (Subjective Type Questions)

- A. 1. Fill Format mode is used to quickly apply the selected style from Styles deck to different locations in the document without having to go back to the Styles deck each time.
2. Following are the steps to access Styles deck:
- Step 1:** Click on the Style Menu from the Menu bar.
- Step 2:** Select the Manage styles option.
- The Styles deck will appear on the right side of the screen.
3. To apply style using the Fill Format Mode:
- Step 1:** Click on the **Styles** icon present on the sidebar, **Styles** deck appear on the screen.
- Step 2:** Click on the paragraph styles button, a list of stored paragraph styles appears.
- Step 3:** Click on required style from the list.
- Step 4:** Click on the **Fill format mode** button. The mouse pointer changes into a paint bucket icon.
- Step 5:** Hover the **Fill format mode** tool over the paragraph where you want to apply the selected style and click on.
- Selected style gets applied on the paragraph.

4. If we apply and update manual formatting to a style in a document, same formatting is applied on the rest of the content also which is having that style.
5. On selecting the Overwrite option, the styles being copied will replace any existing styles with the same name.

B. List Styles

2. Working with Images

Unit 1: Digital Documentation (Advanced) Using Libreoffice Writer

Lab Assignment 'N Activity Page 167-185

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. iv 2. i 3. ii 4. i 5. iv
- B.** 1. False 2. False 3. True 4. True 5. True
- C.** 1. ii. Both A and R are true but R is not the correct explanation of A.
2. i. Both A and R are True and R is the correct explanation of A.
- D.** 1. ii. Statement 1 is false , Statement 2 is false.

Section B (Subjective Type Questions)

- A.** 1. Following are the five properties of drawing objects:
- **Line color:** This control selects a color for the borderline of the drawing object.
 - **Line style:** This drop down list helps to select the style of line around the object
 - **Line thickness:** The control helps to select the thickness of the lines.
 - **Area style/Filling:** This drop down list helps to select the type of fill to be applied to the selected drawing object.
 - **Rotate:** This icon is used to rotate the selected drawing object.
2. We group drawing objects to make them act as a single object instead of different objects. If we need to move or resize several drawing objects in a document we group them. Grouping features allow rotation, flipping, moving or resizing several drawing objects because grouping of all the objects will make it act as a single object.
3. Following are the steps to modify an image using image toolbar:
- Step 1:** Insert an image in a Writer document. The Image toolbar appears.
- Step 2:** Click on the **Filter** tool. A drop-down menu appears containing different icons of filter effects.
- Step 3:** Click on the desired filter effect.



4. Following are the steps to resize the drawing objects:

Step 1: Select the image.

Step 2: Click on the Format menu and then select the **Image** → **Properties** option.

Step 3: Click on the **Position and Size** tab.

Step 4: Adjust the width, height, etc.

Step 5: Click on the **OK** button.

The image will be resized as per the set specifications.

5. **To Character:** The image is associated with a character but is not in the text sequence. It moves with the paragraph but can be placed in the margin or another location.

As Character: The image is placed in the document light any other character and therefore affects the height of the text line and the line break. The image moves with the paragraph as we add or delete text before the paragraph.

- B. They can use a wrapping option as 'In Background'.

Following are the steps to apply this wrapping option:

Step 1: Type the textual content of the story.

Step 2: Insert the image and right click on it and select the option "Wrap" and then select the sub option "In Background".

The story will be displayed over the picture.

3. Advanced Features of Writer

Unit I: Digital Documentation (Advanced) Using Libreoffice Writer

Lab Assignment 'N Activity Page 192-217

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. iv 3. i 4. i 5. iii
- B. 1. True 2. True 3. True 4. True 5. False
- C. ii. Both A and R are true but R is not the correct explanation of A.
- D. 1. iii. Statement 1 is true , Statement 2 is false
2. i. Statement 1 is true, Statement 2 is true
3. iv. Statement 1 is false , Statement 2 is true

Section B (Subjective Type Questions)

- A. 1. A template is a pre- designed document that can be used as a starting point for creating new documents with a consistent style and structure. Template can include predefined text, formatting, styles, images, and other elements that help in maintaining uniformity across different documents.



2. Following are the steps for importing a template:

Step 1: Choose **File** → **Templates** → **Manage Templates**

Step 2: Click on the **Manage** → **Import**

The **Select Category** dialog box opens.

Step 3: Select a category from the existing categories.

Step 4: Click on the **OK** button. The **Open** dialog box appears.

Step 5: Navigate to the location where the template is saved.

Step 6: Select the template.

Step 7: Click on the **Open** button.

The selected template will be added to the templates of LibreOffice Writer.

3. The Update index option enables to update the changes made in the document. It is useful when we add or delete text in the document and due to which and the headings are moved to a next page or if some changes are made in the format of headings, update index can be used.
4. The different options or tabs that are present in the Type tab of the Table of contents, index or Bibliography dialog box are as follows:
- **Title:** It sets the title of the table of contents.
 - **Type:** It allows us to select the type of Table of Contents.
 - **Protecting against manual changes:** It restricts the manual changes in the TOC if selected.
 - **For:** It allows us to create the TOC for a particular chapter or the entire document.
 - **Include up to level:** It allows us to specify the maximum number of heading level for TOC.
 - **Create from:** It provides three different check boxes like heading, additional styles, and index entries.
5. The options that are present in the Entries tab of the **Table of Contents, Index or Bibliography** dialog box are as follows:
- **N# :** This option adds the heading number or list number of the entry.
 - **E :** This option represents the entry text.
 - **T :** This option represents a tab stop.
 - **#:** This option represents the page number.
 - **LS:** This option specifies the start of a hyperlink.
 - **LE:** This option specifies the end of a hyperlink.

B. While creating Table of Contents:

- Proper heading should be given to the chapter titles such as Heading 1 for chapter title, Heading 2 for the topics covered under this chapter.
- After assigning the headings, they should use the Insert menu.
- Click on the Table of Indexes option to create TOC.



4. Analyse Data using Scenarios and Goal Seek

Unit 2: Electronic Spreadsheet (Advanced) Using Libreoffice Calc

Lab Assignment 'N Activity Page 225-237

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iv 2. iv 3. iii 4. iii 5. ii
- B. 1. single/master spreadsheet 2. Goal Seek 3. Solver
4. Subtotal 5. Group and outline
- C. 1. True 2. False 3. True 4. True 5. False
- D. i. Both A and R are true and R is the correct explanation of A.
- E. iii. Statement 1 is true , Statement 2 is false

Section B (Subjective Type Questions)

- A. 1. Followings options are present the in what-if scenarios dialog box:
- **Name of Scenario:** To assign a name can be given.
 - **Comment:** To add details like creation date of scenario, user name, etc. can be given.
 - **Settings:** To configure settings such as border colour, copy option can be activated.
2. Following setting options are available:
- **Display border:** It is used to highlight the Scenarios with a border. The colour for the border is specified in the field to the right of this option. The border has a title bar displaying the name of the last scenario.
 - **Copy Back:** It copies the values of cells that you change into the active Scenarios. If you do not select this option, the scenario doesn't change even when you change cell values.
 - **Copy entire sheet:** It copies the entire sheet into an additional scenarios sheet.
 - **Prevent changes:** It is used to prevent changes to the active scenarios
3. To use the multiple operations tool, we need two arrays of cells:
- The first array contains the original or default values and the formulas applied to them. The formulas must be in a range.
 - The second array is the formula array. It is created by entering variables which are alternative values for one or two original values.

For Example: Rohit produces toys which he sells for \$10 each. Each toy costs \$2 to make, in addition to which he has fixed costs of \$10,000 per year. We can calculate how much profit he will make in a year if he sells a particular number of toys.

Suppose Selling price is kept in cell B1, manufacturing cost in cell B2, fixed cost in cell B3.

Step 1: To calculate the profit, enter the formula $=B4*(B1-B2)-B3$ in cell B5.

Step 2: In column D, enter expected annual sales, one below the other; for example, 500 to 5000, in steps of 500.

Step 3: Select the range D2:E11, and thus it will select the values in column D and the empty cells alongside in column E.

Step 4: Click on **Data** menu and select **Multiple operations** option.

The Multiple Operations dialog box appears on the screen.

Following options are there in the 'Multiple Operations' dialog box:

- **Formulas:** It is used to enter the cell reference to the formula that is applied to the data range.
- **Row input cell:** It is used to enter the reference to the first cell of the range arranged in rows that is part of the formula.
- **Column input cell:** is used to enter the reference to the first cell of the range arranged in columns that is part of the formula.

Step 5: With the cursor in the Formulas field, click on cell B5.

Step 6: Set the cursor in the **Column input cell** field and click on cell B4. This means that B4, the quantity, is the variable in the formula, which is replaced by the selected column values.

Step 7: Click on OK to close the dialog box.

4. Let us consider an example to perform Goal Seek operation:

Imagine you are creating a mixture of 4 products, whose quantities in kg are 8, 5, 4. The targeted quantity of the mixture is 30. We will have to perform goal seek to determine how much quantity of 4th product should be taken to reach the targeted value.

Step 1: Enter the Quantity of all the products in different rows or columns.

Step 2: Calculate the total no. of quantity of all the 3 products and put the 4th product quantity as 0.

Step 3: Click on **Tools Menu**.

Step 4: Select the Goal Seek option.

The **Goal seek dialog box** appears.

Step 5: Enter the cell No. in **Formula Cell** which contains the formula of total quantity.

Step 6: Enter the **targeted value** as 30.

Step 7: Click on the **variable cell** and put the cell no. of 4th product over there.

Step 8: Click on **OK** button.

Step 9: Click on **Yes** button. The Quantity of the 4th product will be displayed to achieve the targeted value.



5. Let's continue with our previous example of 4 products and their quantity. Now to get target value of the product, quantities of multiple products are to be calculated.

Step 1: Select **Formula cell**. Here, it is B6 to calculate the total quantity of the product.

Step 2: Click on the **Tools menu**.

Step 3: Select the **Solver** Option.

The **Solver dialog box** appears on the screen.

Step 4: Put the **Formula cell** in the **targeted cell**.

Step 5: Select the value of the **radio button** and set its value to 30.

Step 6: Select the **range of cells** whose value can be modified by changing cells text field.

Step 7: Click on the **Solver** Button and give the limiting conditions.

Step 8: Click on the **Keep Result** button to keep the updated values in the cell.

- B. She can use the Subtotal feature.

5. Using Macros in Spreadsheet

Unit 2: Electronic Spreadsheet (Advanced) Using Libreoffice Calc

Lab Assignment 'N Activity Page 259

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iii 2. i 3. iv 4. ii 5. i
- B. 1. underscore 2. Sub 3. BASIC 4. values 5. macro
- C. i. Both A and R are true and R is the correct explanation of A.
- D. iv. Statement 1 is false , Statement 2 is true

Section B (Subjective Type Questions)

- A. 1. Steps to create a macro that work as a function and displays 'hello world' are as follows:

Step 1: Create a new spreadsheet.

Step 2: Go to Tools → Macros → Organize Macros → Edit Macros.

The Macro code window opens.

Step 3: Create an empty line before **Sub** and **End Sub**.

Step 4: Write the given code in the code window:

```
Function DisplayData()  
DisplayData()="Hello World!!!"  
End Function
```

Step 5: Press **Ctrl + S** shortcut key from the keyboard or click on **Save** button on the **Standard** toolbar to save the changes in the code window.



2. While organising a macro, we have to focus on the following key points:
 - a. Break It Down: Divide a Macro into smaller, manageable sections.
 - b. Use clear names: Name variables and parts of the Macro clearly for easy understanding.
 - b. Add comment: Include notes in your code to explain what each part does.
 - c. Handle errors: make sure the Macro can deal with problems without crashing.
 - d. Test regularly: check the Macro to ensure it works as expected.
3. Follow the steps to record a macro:
 - Step 1:** Create a new spreadsheet.
 - Step 2:** Enter number into a spreadsheet.
 - Step 3:** Select the cell B2.
 - Step 4:** Press Ctrl+C key combination to copy the value to the clipboard.
 - Step 5:** Select the range A1:B3.
 - Step 6:** Click on the **Tools** menu from the Menu bar.
 - Step 7:** Select the **Macros** option.
 - Step 8:** Select the **Record Macro** option.

The recording will start immediately. As soon as the record macro is active a dialog box of Stop recording will be activated.
 - Step 9:** Select the Edit menu from the Menu bar.
 - Step 10:** Select the Paste special → Paste Special option from the submenu.

The Paste Special dialog box opens.
 - Step 11:** Select the **Multiply** radio button under Operations section.
 - Step 12:** Click on the **OK** button.

The operations specified in macro is applied to the selected cell range(A1:B3).
 - Step 13:** Click on the **Stop Recording** option.

The BASIC Macros dialog box opens, to stop the Macro Recorder and to save the macro.
 - Step 14:** Select the current Spreadsheet. Click on the '+' next to the spreadsheet to view the contained libraries.
 - Step 15:** Click on the **New Module** to create a module in the Standard library. If no libraries exist, then the Standard library is automatically created and used.
 - Step 16:** Click on the OK button to create a module named Multiply.
 - Step 17:** Select the newly created module Multiply.
 - Step 18:** Type the macro name Multiply5 in the Macro Name text box.
 - Step 19:** Click on the **Save** button.
4. Following are the steps to view macro:
 - Go to **Tools > Macros > Organize Macros > Basic** to open the Basic Macros dialog.
 - Select the desired macro that you want to view and click **Edit**.

The Basic IDE will open and the macro.



5.	<table border="1"> <thead> <tr> <th>Predefined functions</th><th>Macros</th></tr> </thead> <tbody> <tr> <td>Predefined functions are built-in functions provided by Calc, like SUM, AVERAGE, and IF.</td><td>Macros are user-defined sequences of actions that can perform more complex, customized tasks, essentially recording and replaying a series of steps to automate repetitive actions.</td></tr> <tr> <td>Predefined functions are used to perform common calculations automatically in cells.</td><td>Macros are used to automate repetitive tasks or complex procedures.</td></tr> </tbody> </table>	Predefined functions	Macros	Predefined functions are built-in functions provided by Calc, like SUM, AVERAGE, and IF.	Macros are user-defined sequences of actions that can perform more complex, customized tasks, essentially recording and replaying a series of steps to automate repetitive actions.	Predefined functions are used to perform common calculations automatically in cells.	Macros are used to automate repetitive tasks or complex procedures.
Predefined functions	Macros						
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Predefined functions are used to perform common calculations automatically in cells.	Macros are used to automate repetitive tasks or complex procedures.						

- B. She can create a macro function ADD().
She can go to **Tools menu → Macros → Edit Macros**

Write the code as given below:

REM *** BASIC *******

Sub Main

End Sub

Function add(a,b)

add=a+b

End Function

This function can be used in any cell and cell address can be given as arguments.

6. Linking Spreadsheet Data

Unit 2: Electronic Spreadsheet (Advanced) Using Libreoffice Calc

Lab Assignment 'N Activity Page 272

Do it yourself.

Lab Assignment 'N Activity Page 281

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. i 3. ii 4. i
- B. 1. True 2. False 3. True 4. False
- C. ii. Both A and R are true but R is not the correct explanation of A.



Section B (Subjective Type Questions)

A. 1.

Relative Hyperlink	Absolute Hyperlink
A Relative Hyperlink contains a partial address.	An Absolute Hyperlink contains a full address, the protocol and domain name for URL, and the entire path and file name for documents.
For Example: https://orangewebsupport.co.in	For Example: www.orangeeducation.in/about.html

2. Following are the steps to create a hyperlink to a sheet:

Step 1: Select the cell in which hyperlink is to be created. Click on the Insert menu and select Hyperlink option. Hyperlink dialog box appears.

Step 2: Select the **Document** option present on the Hyperlink dialog box.

Step 3: Click on the **open file** button to specify the path.

Step 4: Browse the location of the target document and select the file.

Step 5: Click on the **Open** button.

3. Following are the steps to create reference to other sheet

Step 1: Open a new spreadsheet **Untitled1** and select any cell.

Step 2: Open any existing spreadsheet.

Step 3: Go back to **Untitled 1** spreadsheet and type = in any cell say A1

Step 4: Select the desired cell A2 on the existing sheet.

Step 5: A reference of the cell has been created in **Untitled 1**.

Step 6: Press **Enter** key

4. Following are the steps to edit a hyperlink:

Step 1: Hover the cursor anywhere on the link and right-click on hyperlink.
A pop up menu will be displayed.

Step 2: Click on the option **Edit Hyperlink**.

The **Hyperlink** dialog box will appear. Make desired changes in the hyperlink.

B. Hyperlink feature

7. Share and Review a Spreadsheet

Unit 2: Electronic Spreadsheet (Advanced) Using Libreoffice Calc

Lab Assignment 'N Activity Page 300

Do it yourself.



Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. ii 3. ii 4. ii
- B. 1. False 2. False 3. False 4. True 5. True
- C. i. Both A and R are true and R is the correct explanation of A.

Section B (Subjective Type Questions)

- A. 1. The purpose of sharing a spreadsheet is to allow multiple users to access, edit, and update the data on the same sheet simultaneously.
2. To edit and format the text of a comment we have to follow the following steps:
- Step 1:** Right-click on the cell containing the comment marker and then select **Show Comment** from the popup menu.
- Step 2:** Double click on the comment. The cursor changes to the blinking text entry and the formatting toolbar changes to show text attributes.
- Step 3:** After editing, click outside the comment to deselect it.
3. To merge different versions of a spreadsheet, follow the given steps:
- Step 1:** Open the original document into which you want to merge all copies.
- Step 2:** Click on the **Edit** menu.
- Step 3:** Click on **Track changes** option and then select **Merge Document**.
- Step 4:** Select the copy of the document from the dialog box. If there has been no subsequent change in the original document, the copy is merged into the original.
- Step 5:** If changes have been made in the original document, a dialog box appears asking to accept or reject changes.
- After merging the documents, you can see the recorded changes from the copied document into the original document.
4. When a shared spreadsheet is saved, one of the several situations may occur:
- If the document was not modified and saved by another user, the document will be saved.
 - If the document was modified and saved by another user, one of the following events will occur:
 - If the changes do not conflict, that document is saved, a dialog box appears, and any cells modified by the other user are shown.
 - If the changes conflict, the **Resolve conflicts** window appears on the screen, decide for each conflict that is which version to keep, **Keep Mine** or **Keep Other**. When all conflicts are resolved, the document is saved. While resolving the conflicts, no other user can save the shared document.
 - If another user is trying to save the shared document while another user is resolved in conflicts, a message that the shared document is locked due to a merge in progress. Choose the **Cancel** saving or **Retry** saving **later**.

B. Reviewing Changes



8. Introduction to Database Management System

Unit 3: Database Management System Using Libreoffice Base

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. ii 2. iii 3. i 4. iii 5. i 6. ii
- B.** 1. False 2. True 3. False 4. True 5. True 6. False
7. True 8. True 9. False 10. True
- C.** 1. i. Both A and R are true and R is the correct explanation of A.
2. ii. Both A and R are true but R is not the correct explanation of A

Section B (Subjective Type Questions)

- A.** 1. A **database** is defined as an organised collection of data that can be visualised as a container of information. It allows for the storage, modification and retrieval of data efficiently.
2. When the data is stored in multiple tables that are linked to each other on the basis of a common field, then such a database is called a Relational database, and software handling a Relational database is called Relational database management system or RDBMS. Microsoft Access, MySQL, etc. are examples of RDBMS.
3. i. **Tables:** A table is the basic element of a database. it refers to a storage container storing data pertaining to a single object, subject or purpose. A table stores data in the form of records(rows) and fields(columns). For example, an Employee table may contain all information pertaining to an employee e.g. employee ID, employee name, designation, department, grade etc.
- ii. **Fields:** A field, also known as a column or attribute, is the smallest unit of data in a database table. Fields represent specific types of information about the entities or objects being stored in the table. Each field has a name and a data type that defines the kind of data it can hold (e.g., text, number, date). For example, name, age, address, and designation can be the fields in a given table employee.
- iii. **Records:** A record, also known as row or tuple, is a collection of multiple data values related to a particular entity.
- For Example, Mr. John ,43 years, Noida, Marketing manager can be treated as a record.
4. A form is an interface in a user-specified layout that lets user's view, enter, and modify data directly in the table. Using forms, different database operations can be performed without writing queries.
5. The different type of data models are:
- **Hierarchical data model:** This model organises data in a tree-like structure like a family tree. At the top is a single parent node and beneath it are Child nodes, which can further have their children.



- **Network Data model:** This data model allows multiple records to be linked to a central master file. It offers greater flexibility in data organization but can also present challenges in management compared to simpler models.
 - **Relational data model:** This data model is built on the concept of establishing relationships between two or more tables within the same database. It is the most widely used database model. In this model, data is organised into tables which consist of rows and columns. Each row represents a record whereas columns represent specific attribute or field.
- B.**
- A database management system is a software package with computer programs that control the creation, maintenance and use of a database. It allows organizations to conveniently develop databases for various applications.
 - Two database programs are:
 - Microsoft Access
 - LibreOffice Base
 - Id can be set as a primary key
 - No. If there are more than one field is consider as primary key, then there will be two identities against a row. But, there can be only one identity against a row. So, we cannot have more than one primary key.

9. Starting with LibreOffice Base

Unit 3: Database Management System Using Libreoffice Base

Lab Assignment 'N Activity Page 328-337

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. iii 2. ii 3. iv 4. ii 5. iv
- B.** 1. True 2. False 3. True 4. True 5. True
- C.** i. Both A and R are true and R is the correct explanation of A.

Section B (Subjective Type Questions)

- A.** 1. In LibreOffice Base, a default value of a field refers to those predefined value that is automatically inserted into a field whenever a new record is created in a table.

2.

CHAR	VARCHAR
<ul style="list-style-type: none"> The character data type stores data with a fixed length as specified by the user. 	<ul style="list-style-type: none"> The Varchar data types stores data up to a specified length.
<ul style="list-style-type: none"> It is ideal for entries that require a fixed number of characters. 	<ul style="list-style-type: none"> The number of bytes allocated depends on the actual number of characters entered.



3. Steps to set a primary key:

Step 1: Position the mouse pointer on the field which you want to set as the primary key.

Step2: Right click on the field, a context menu appears.

Step 3: Select the **Primary Key** option from the context menu. A key like symbol appears beside the column name denoting it as a primary key.

4. Steps to create a table in design view are given below:

Step 1: Click on the **Create Table in a Design View** option from the **Tasks** pane. The **Table Design** window opens, which contains Field Name, Field Type, Description, and Field Properties.

Step 2: Type a name for the field in the **Field Name** column.

Step 3: Select the data type from the drop-down list in the **Field Type** column.

Step 4: Mention the details of the field in the **Description** column.

Step 5: Position the mouse pointer on the field which you want to be set as **Primary key**.

Step 6: Right-click the field. A context menu appears.

Step 7: Select the **Primary Key** option from the context menu.

Step 8: Click on the **Save** button in the **Standard** toolbar.

Step 9: Type the name of the table in the **Table Name text box**.

Step 10: Click on the **OK** button. A table with the given name is created.

5. The five main components of a LibreOffice Base interface window are:

- **Title bar:** Title bar lies at the uppermost side of the opening screen. It displays the file name along with the maximize, minimize and close button on the right side.
- **Menu bar:** Menu bar contains the buttons of various menus like File, Edit, View etc. that helps while working with the LibreOffice base.
- **Standard toolbar:** It contains the shortcut buttons or icons for frequently used commands like **New, Open, Save** etc.
- **Database Pane:** It provides a structured view of the essential components such as Tables, Queries, Forms and Reports.
- **Tasks Pane:** The Task Pane is a box on the upper side named as 'Tasks'. It contains three options to create a table.
- **Status bar:** It displays information about the current status of the opened application.

B. i. ProductID can be assigned as the primary key of the given table as it contains a unique value for each record.

ii. **Step 1:** Open the table by double clicking on its name in the **Tables** pane.

The Product inventory table opens in the **Table Data View** window.

Step 2: Click on the **Category** field of the record where **ProductName** is **Samsung 55" TV**.

Step 3: Make the changes from **Computers** to **Electronics**.

Step 4: Click on the **Save current record** button from **Table Data toolbar**.



10. Working with Multiple Tables

Unit 3: Database Management System Using Libreoffice Base

Lab Assignment 'N Activity Page 350

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. i 2. ii 3. iii 4. iii
- B. 1. False 2. False 3. False 4. True
- C. iii. A is true but R is false.

Section B (Subjective Type Questions)

- A. 1. i. **Right-click** on the table that is to be deleted.
ii. Select the **Delete option** from the **context menu**. A confirm Delete message box will open that prompts you to delete the table.
iii. Click on the **Yes** button to delete the table.
2. A many-to-many relationship is a type of relationship between two tables where multiple records in one table are linked to multiple records in another table.
Example, Suppose we have two different tables CUSTOMERS and PRODUCTS
Customers can buy multiple products and products can be bought by multiple customers.
3. Steps to rename a table in LibreOffice Base:
- Step 1: Right-click** on the table from the **Tables pane**.
- Step 2:** Select the **Rename** option from the context menu.
The **Rename to** dialog box opens.
- Step 3:** Type the new name for the table in the **Table name** text box.
- Step 4:** Click on the **Ok** button to rename the table.
4. LibreOffice Base provides four options to maintain referential integrity:
- **Update Cascade:** It enables updates or deletions in the master table and automatically updates or deletes related records in transaction table also.
 - **Set NULL:** Assigns null value to the related records if master record is updated or deleted.
 - **No Action:** It prevents updation or deletion of records in the master table if related records exist in the Child table.
 - **Set default:** Assigns a fixed default value to related fields if the master record is updated or deleted.

- B. i. One to many relationship between Books and Loans because one book is borrowed by more than one member.
- ii. One to many relationship between Members and Loans because one member is having one record in the Loans table.

11. Queries in Base

Unit 3: Database Management System Using Libreoffice Base

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. ii 3. iii 4. ii 5. i
- B. 1. False 2. False 3. False 4. True 5. False
- C. 1. ii. Both A and R are true but R is not the correct explanation of A.
2. iii. A is true but R is false.

Section B (Subjective Type Questions)

- A. 1. A query is a tool through which data is accessed or manipulated in a table.
2. SQL stands for structured query language which is store and manipulate data in a database. Different SQL commands are used to create and perform operations on relational databases such as creation, display, updation, etc.
3. The * wildcard character represents one or more characters whereas ? Wildcard character represents only one character.
4. LibreOffice Base allows the user to categorise the data on this field. This field on the basis of which data is being grouped is called group-field.
5. To perform calculations in a query, we need to do the following:
- Step 1:** Go to the **Queries** section in the Database Pane.
- Step 2:** Click on **Create Query in Design View** option under the **Tasks** pane.
- Step 3:** Select the tables to which the query is related.
- Step 4:** Click on **Add button** and then click on **Close** button the table selection window.
- Step 5:** Drag and drop the required fields into the **query grid**.
- Step 6:** In a new column under the **Field** row, enter the formula for calculation.
- Step 7:** Give an alias name for the field displaying calculation
- Step 8:** Click on the Run Query icon and then save the query.
- B. 1. i. Select Sale_Id, Price from Sales where Discount>1000;
- ii. Select * from Sales Order By prod_Name;
- iii. SELECT Prod_Name, (Price - Discount) AS Sales_Price FROM Sales;



2. i. SELECT Scholarship + 1000 AS New_Salary FROM Student;
- ii. SELECT Roll_No, Scholarship - 500 AS Reduced_Salary FROM Student;
- iii. SELECT First_Name, Last_Name, Scholarship * 3 AS Tripled_Salary FROM Student;
- iv. SELECT Roll_No, First_Name, Last_Name FROM Student;

12. Forms and Reports

Unit 3: Database Management System Using Libreoffice Base

Lab Assignment 'N Activity Page 379

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. i 3. iii 4. iv 5. i
- B. 1. False 2. False 3. False 4. True 5. True
- C. iii. A is true but R is false.

Section B (Subjective Type Questions)

- A. 1. Form is the database object that provides a user-friendly interface to enter, modify and view data in a visually appealing and readable way. It acts as a front end for data entry and modification displaying data in a customized format rather than in row column format.
2. A static report displays the data present in the table but if changes are made in the table, those changes are not updated once a static report is created it whereas in a dynamic report changes done in a table will be automatically reflected.
3. Following are the steps to create form using Wizard:

Step 1: Click on the **Forms** object from the **Database** pane.

Step 2: Click on the **Use Wizard to Create Report** option in the **Tasks Pane**.

Step 3: Select the **ACCESSORIES** table from **Tables and queries** drop-down list for which the form will be created.

Step 4: Add the fields to the **Fields in the form** list box from the **Available fields** list box by clicking on the > button to add the selected field or >> button to add all fields. We have added all the fields.

Step 5: Click on **Next** button to continue.

Step 6: Label the fields by which they will appear on the report if desired and click on **Next** button.

Step 7: If you want to group data by a specific field, select it.

Step 8: Click on **Next button** if grouping is not needed.



Step 9: Select the fields on the basis of which sorting will be applied in the records if desired.

Step 10: Click on **Next button** to proceed.

Step 11: Select a **layout** (e.g., columnar, tabular) and **Orientation** for the report.

Step 12: Click on **Next** button to continue.

Step 13: Give a name to the report and specify the kind of report i.e. Static or Dynamic. Choose whether to **modify the report layout or create it immediately**.

Step 14: Click on **Finish** button to generate the report.

4. Following are the two ways of creating reports in LibreOffice Base:

- Create Report in Design View.
- Use Wizard to Create a Report.

5. The form navigation toolbar includes different navigation buttons that allow us to move through and view records in the form. As we navigate between records, the record number displayed in the text boxes changes accordingly.

The description of the five buttons available in the form navigation toolbars are as follows:

- a. **Find record:** Search a specific record in the table.
- b. **First record:** Show the first record on the form.
- c. **Save record:** Save the new record in the table.
- d. **Refresh:** Reload data in the form from the underlying database.
- e. **Sort:** Sort data in ascending or descending order.

B. 1. Dynamic

2. Use the Sort tool in the form view on the basis of the field "Publication Year" in ascending order.

13. Health, Safety and Security at Workplace

Unit 4: Maintain Healthy, Safe and Secure Working Environment

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. iv 2. ii 3. ii 4. ii 5. iii
- B. 1. Chemical 2. Mental 3. hazard control 4. training 5. Psychosocial
- C. 1. i. Both A and R are true and R is the correct explanation of A.
2. ii. Both A and R are true but R is not the correct explanation of A.



Section B (Subjective Type Questions)

- A. 1. Workplace safety involves the aspect of essential safety practices and proactive identification of potential hazards. It refers to the policies, procedures, and practices followed in order to protect employees from hazards, injuries, and health risks involved in workplace.

Importance of Workplace Safety

- To reduce workplace accidents, protecting employees from harm.
 - To provide a safe work environment having few disruptions.
 - To minimize medical expenses, legal fees, and compensation claims due to workplace incidents.
 - It helps businesses follow health and safety laws, avoiding fines and penalties.
 - People feel safe in a good work environment and their performance improves.
2. A **hazard** is anything that has the potential to cause harm, injury, or damage to people, property, or the environment.

Risk is the possibility that a hazard cause a potential harm.

3. Following are the three types of workplace hazards:

Mechanical hazards are those that arise from machinery or equipment with moving parts, sharp edges or rotating components that can cause crushing or other severe entanglement injuries.

Biological hazards are those type of hazards that are generally found in healthcare sector, laboratories or environments handling organic matter that includes exposure to bacteria, viruses, fungi and various parasites, It can causes infections or illness.

Electrical hazards are those kind of hazards that are caused due to exposed electrical parts, faulty wiring, improper use of electrical appliances. It can cause electric shocks, burns and fire hazards.

4. Regular training should be given in workplace in form of mock drills so that people are well aware of the safety facilities available at workplace. It enhances the effectiveness of safety measures by protecting the employees and promoting operation efficiency and overall well-being.
5. Following are the responsibilities of a workplace health and safety committee:
- It provides sufficient resources to support ongoing improvement in occupational health and safety performance.
 - It implement measures and processes to prevent occupational accidents, injuries, etc.

- B. i. The key mistake made by the company is not forming a safety committee that could address the hazards.
- ii. Following actions can be taken to ensure workplace safety:
- Modifying equipment or processes to reduce the risk of exposure to hazards such as installation of ventilations system to remove airborne contaminants.
 - By removing hazardous materials directly from the workplace or by replacing them with something safer.



14. Workplace Quality Measures

Unit 4: Maintain Healthy, Safe and Secure Working Environment

Lab Assignment 'N Activity Page 426

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A. 1. ii 2. i 3. i 4. ii 5. ii
- B. 1. air quality 2. chair 3. OOS(Occupational Overuse Syndrome)
4. 20-20-20, 20
- C. i. Both A and R are true and R is the correct explanation of A.

Section B (Subjective Type Questions)

- A. 1. Monitoring of water quality is important to find details of key parameters related to water such as pH value, contaminants present in the water such as bacteria, heavy metals, etc. Results of the monitoring can be used to determine the water quality and to find whether any contamination issues are present or not. It is important for maintaining a safe environment and protecting public health
2. One can avoid musculoskeletal problems associated with prolonged computer used by taking few precautions such as:
- Follow the 20-20-20 rule that is in every 20 minutes look at something which is 20 feet away for at least 20 seconds to give rest to your eyes.
 - Use an ergonomic keyboard and mouse that promote a natural wrist position and minimise strain.
 - Incorporate stretching exercises for your neck, shoulder, wrists and back in your daily routine.
3. Eye strain is a condition that is caused due to focusing on screens for long duration continuously. It leads to tired eyes. Various symptoms of eye strain include dryness, blurry vision, headaches and discomfort in the neck or shoulder.
- Following are the causes of eye strain:
- Improper lighting
 - Incorrect viewing distance
 - Uncorrected vision issues
4. It is important to use ergonomic chairs and desks in an office to prevent oneself specially people who have to work on computers for long durations from musculoskeletal problems such as hand discomfort, neck and shoulder pain, lower back pain, muscle fatigue, etc. The use of ergonomic chair provides good lumbar support and usage of ergonomic keyboard and mouse provides comfort in working and puts less strain on wrists.



5. Following are the factors that contribute to occupational overuse syndrome:
- Repetitive movements
 - Awkward postures
 - Putting excessive strain in occupational activities

B. Few measures can be taken such as:

- She should take regular breaks after every 20 minutes.
- She should ensure that her workplace is spacious enough to accommodate things as well as it should be arranged time to time.
- Her workplace should be well lighted.

15. Prevent Accidents and Emergencies

Unit 4: Maintain Healthy, Safe and Secure Working Environment

Lab Assignment 'N Activity Page 436

Do it yourself.

Unsolved Exercise ?

Section A (Objective Type Questions)

- A.** 1. iii 2. iii 3. iv 4. ii
- B.** 1. False 2. True 3. True 4. False 5. True
- C.** i. Both A and R are true and R is the correct explanation of A.

Section B (Subjective Type Questions)

- A.** 1. Healthy living means making daily choices that prioritise physical, mental, and emotional well-being. This includes regular exercise, a balanced diet rich in nutrients, managing stress effectively, and ensuring adequate sleep.
2. Following are some common electrical based risk causing factors:
- Damaged extension cords or damaged electronic appliances
 - Blocked electrical panels and heaters
 - Overloaded circuits
 - Thundering and lightening
 - Loose connections
 - Old or poor wiring
 - Presence of inflammable substance near electronic equipments
3. Following measures can be taken to prevent accidents due to moving objects:
- Adequate lighting should be at such kind of workplace so that the visibility is clear.
 - Standard procedures should be followed to handle those objects.
 - Proper safety equipment should be used by workers.



4. Importance of evacuation policy in an organization is to keep people safe during dangerous or potential hazardous situation to ensure a safe environment. It enables employees to have a clear plan regarding the proper evacuation plan.
 5. As soon as you encounter a person having electrical shock follow these measures:
 - Turn off the electrical power and unplug the electrical appliances.
 - Don't touch the injured person if he/she is still in contact with the source.
 - Use non- conducting dry object such as plastic or wood to remove the source.
 - Avoid touching the victim or any conducting surface while they remain energized.
 - Deactivate electrical circuit to eliminate the hazard.
 - Try to arrange for immediate medical attention for the victim.
- B.** As a safety leader, I would follow few basic measures to train my classmates such as:
- Train my classmates about the essential first aid skills, such as treating cuts, burns, and fractures and follow the standard operating procedures followed in case of some common accidents.
 - Notify them about the emergency and ways to report incidents. Maintain clear and open communication with emergency responders.
 - Fire and emergency evacuation drills should be conducted on regular basis to familiarise classmates with escape routes.
 - Educate them on identifying potential risks present in the environment.
 - Simulate emergency situations to prepare them for such situations.
 - Train them to stay calm and follow instructions.
 - Ask them to keep essential safety equipments such as fire extinguishers in a proper working condition and easily accessible.

