ANSWER KEY

Artificial Intelligence

Part-A: Employability Skills

1. Communication Skills-I

Exercise

🔒 **Unsolved Questions**

A. 1. assertive 2. paragraph 3. Visual
4. closed, open-ended 5. Possessive

B. 1. False 2. True 3. False 4. False 5. True

C. 1. **Declarative Sentences**

- We own a flat in Dwarka.

Interrogative Sentences

- Which movie would you like to watch?

Imperative Sentences

- Wash your dirty clothes.

Exclamatory Sentences

- Your dog is so big!

2. The assertive communication style maintains an open communication channel without becoming overpowering. Assertive communicators are able to convey their own wants, desires, ideas, and feelings while also taking into account the requirements of others. Assertive communicators are able to convey their own wants, desires, ideas, and feelings while also taking into account the requirements of others.

Using "I" statements, such as "I feel frustrated when you are late for a meeting," or "I don't like having to explain this again and over," is one of the cornerstones to assertive communication. It implies taking responsibility for one's feelings and conduct without blaming the other person.

3.

Formal Greeting	Informal Greeting
Formal greeting is used if you do not know the person. It is used to greet an elder, elderly person, or people with whom we have a formal relationship such as a teacher or a client.	Informal greetings are used when you are talking to friends, family or when you know the person very well.
This is used more often in schools, colleges, offices, meetings, and at work	Used at home, in parties.
Example: Good morning. How are you?	Example: Hi! What's up?

4. **Verbal Communication**

Verbal communication is the exchange of information using words. This is what most people use as a communication method. Verbal communication is important. If you don't use the right words, you'll be confused and you won't be able to convey your message.

Non-Verbal Communication

Nonverbal communication is the transmission of a message without using words. We send signals and messages to others through our expressions, gestures, and body posture.

5. Misunderstanding, working environment, geographical difference

D. 1.

Closed Questions	Open Questions
Questions that can be answered with 'Yes' or 'No' are called closed questions. This is because response options are limited or closed.	Questions whose answer options are neither limited nor closed.
For example, when we asked, "Are you hungry?", the answer can be 'Yes' or 'No'.	For example, when we ask, "What do you want to eat?", the answer could be: "I want to eat grapes".

2. Phonetics is the study of human sounds and phonology is the systematic classification of sounds in one or more specific languages. Sounds can be divided into consonants and vowels. The first can be characterized by 1) place, 2) mode of pronunciation and 3) voice. The English alphabet has 26 letters from A to Z. However, each of these letters can be pronounced differently in different words. We write words in English language using 26 letters. All English words are made of three basic types of sounds—vowels, Diphthongs (combination sound of two vowels) and consonants.

3. Assertive communication is when you confidently express your needs and opinions in a fair, honest and calm way whilst considering the needs and views of other people. It's an important skill that reduces stress because it allows you to:

- Stand up for yourself
- Say "no" without feeling guilty
- Express your wants, needs and opinions

- Maintain self-control
- Judge the situation and be assertive only when it's appropriate

4. Passive communication is defined as not expressing your true feelings, thoughts, or beliefs, allowing others to violate your rights, or breaching your own rights in how you communicate with others. It also entails accepting responsibility for how others might feel or react.

   Passive communication disadvantages:

   - Others take advantage of you In the view of others, your image is limited to being a nice, kind person.
   - Repressing your anger or dissatisfaction can result in inappropriate outbursts of rage and feelings of melancholy.
   - Your self-esteem may suffer as a result.

5.

Part of Speech	Purpose	Sentence
Noun	Person, place, or thing	I am going to Allahabad.
Verb	action/doing words	The cat ran after the rat.
Adjective	describes a noun	I have a big house.
Adverb	describes the verb, adjective, or another adverb	My cat drinks milk quickly.
Pronoun	replaces the noun	He runs quite fast.

Lab Activity

Accept all relevant answers.

2. Self-Management Skills-I

Unsolved Questions

A. 1. Personal Hygiene　　2. Time-bound　　3. Listening

4. belief　　5. external motivation

B. 1. True　　2. False　　3. True　　4. True　　5. False

C. 1. Specific, Measurable, Achievable, Relevant, and Time-Bound are the acronyms for SMART goals. Defining these factors in relation to your goal helps guarantee that your objectives are met within a reasonable time frame. This method avoids generalisations and guessing, establishes a defined timeframe, and makes tracking progress and identifying missed milestones easier.

2. Communicate regularly, Show interest in getting to know your contacts. Listen to them patiently and share information if required.

3. • Know what they want from life

   • Focused

   • Understand what is important

   • want to fulfil their dreams

4. **Opinions** - It means the outlooks and judgments formed about something or someone, and this may not necessarily be based on actual facts. For example, opinion about a person's pet choices.

   Values - Values are the principles or standards of action; your own judgment about what is important in your life. They have a great influence on a person's behaviour and attitude. They also serve as a general guideline in all situations. Some good values are honesty, equality, community service, etc.

5. Interests are the things we love to do. Interests could be

   • activities that you enjoy doing in your spare time that make you happy.

   • activities that interest you or you would even do if no one asked you.

   • activities you want to learn or want to do in the future

   Sometimes interests may not match abilities. In these cases, you can improve your skills or go a different route. For example, you may like badminton (interest), but you may not be good at the game. In this case, you can play just for fun, not aim for a badminton career.

D. 1. A team is a group of people who work together to achieve a common goal. Each team has goals to achieve. The process of working together in a group is teamwork. Everyone on the team plays an important role. Each individual on the team is called a team member. Each team member needs to understand his/her role in the team.

   The benefits of teamwork are:

   • There is no individual pressure to succeed because everyone has a role to play in the team

   • All members have a support system to help correct mistakes made by any team member

   • You feel good when the team succeeds and this helps to build your confidence

2. Knowing what you are good at and what doesn't work for you, can help you turn your weaknesses into strengths and your strengths into extraordinary talents. Analysing your strengths and weaknesses is helpful. An analysis of strengths and weaknesses begins with knowing and understanding yourself first.

   To identify your strengths and weaknesses, think about the activities you enjoy/dislike doing.

   Find your strengths

   • Spend time thinking about what you do well

   • Think about what you've always done well

   • Think about what others appreciate about you

   Find your weaknesses

   • Identify areas where you have difficulty and things you find difficult to do

- Critically analyse the comments you receive about yourself from other people
- Be open to feedback and accept your weakness without feeling bad. Think of it as an area for improvement.

3. Proper grooming and impressive appearance can send a message that you are a confident and smart person. These two qualities reflect our preparedness to handle the world around us. You give respect and care to yourself; others will also give importance to you.

Following are some basic guidelines for personal grooming:
- Wear clean, neat and well-ironed clothes.
- Always wear clean socks and polish your shoes regularly.
- Avoid using flashy accessories.
- Brush your hair well.
- Get your hair cut regularly.

4. Advantages of Networking
- Networking helps you find trusted friends.
- Share your expertise and skills. For example, you can help a friend or neighbour to prepare for an interview.
- Ask for help during difficult times-For example, you can ask a friend to help you complete a school project or accompany you to the hospital for a medical test.
- Notify and be notified of new opportunities- for example, you can ask your neighbours/ parents' friends to help you find a part-time summer job at their workplace.

5. • Identify your strengths and weaknesses
- Maintain proper hygiene
- Improve your self-esteem. If failure is bringing you down, remember that there is always a way out.
- Set attainable goals.
- Practice optimistic thinking.
- Boost your willpower.

Lab Activity

Accept all relevant answers.

3. ICT Skills

🔒 Unsolved Questions

A. 1. Print preview   2.   Edit Menu   3.   tooltip

4. status   5. Ctrl+U

B. 1. True   2. True   3. False   4. False   5. True

C. 1. Tracking changes in an OpenOffice document means keeping records of the changes made to the document. Example: A student creates a report and gives it to his teacher for review. Just as a teacher modifies a printed copy with a red pen, the teacher can make changes to a document using the Track Changes mode. This highlights the changes and makes it easier for students to identify and correct mistakes later.

2. Text formatting means changing the appearance of text. Different parts of the text may appear in different styles and sizes. You can bold, underline, or highlight the text to make it visually appealing.

3. A word processor is a software application that helps you create documents by entering, modifying (editing text), arranging (formatting), and printing text.

4. See how your document will look like on printing.

5. The Standard toolbar can be found directly behind the menu bar. It has buttons that symbolise operations like New, Open, Save, and Print.

By default, the Formatting toolbar is situated next to the Standard toolbar. It has buttons that symbolise text-editing functions including font, text size, bold, numbering, and bullets.

D. 1. The spell check function is set to check your spelling as you type. Underlines in your work will be color-coded to match your choices, such as red for spelling issues, green for grammar errors, and blue for contextual spelling errors. You can use the Spelling and Grammar tool to create professional, error-free papers.

Keyboard shortcuts –

- Spelling & Grammar – F7
- Automatic Spell Checking – Shift+F7

2. The menu bar is at the top of a document window. When you click on any menu option, a submenu with commands will open. Let us understand the functions of the options in the menu bar.

- File – contains commands like New, Open, Save, and Print which apply to the entire document.
- Edit – contains document editing tools like Cut, Copy, Paste, Find & Replace etc.
- View - contains commands like Zoom in/out, Web, Status Bar, Ruler, etc. that are used to change the display of a document.
- Insert: Contains commands to add and insert various objects into the document. For example images, shapes, diagrams, headers, footers, page numbers, and so on.
- Format: Contains commands to change the appearance of text.
- Style: Contains commands that determine the general style of the document. You can choose a new style for the document from here.
- Table: Contains commands to insert or delete tables in your document and format them.

3. There are many advantages to using a word processor. Here are a few of them:
   - If you want to add or remove text after the report has been reviewed by the teacher, you can easily do it in a Word document.
   - When creating your CV (resume/biodata), it is important that you do not misspell any words in it. A word processor helps you check spelling and grammar.
   - If you create a long report and need to work for a few days, you can save the report and use it when you need it.
   - You can also print the document.
   - You can make your document attractive by adding different colours, text styles, and text sizes.
   - You can also use the word processor to create posters by simply inserting photos, bullets, tables, shapes, and graphs.

4. ICT, or information and communication technology, refers to products that store, process, transmit, convert, replicate, or receive electronic data. Software applications and operating systems are examples; web-based information and applications such as distance learning are examples; telephones and other telecommunications products are examples; video equipment and multimedia products that may be distributed on videotapes, CDs, DVDs, email, or the World Wide Web are examples; office products such as photocopiers and fax machines are examples; calculators are examples; and computer hardware is an example. ICT also includes electronic textbooks, instructional software, email, chat, and distance learning programmes.

5. Text, like files and directories, can be moved in a variety of ways once it has been selected:

   Ctrl+X to cut, Ctrl+V to transfer your cursor to the new location of text, and Ctrl+V to paste.

   Copy with Ctrl+C, move your mouse to the new location of text, and then paste with Ctrl+V.

   Right-click the selected text and choose Copy or Cut, then right-click the new text place and choose Paste.

   You may shift text between pages, paragraphs, and even applications or windows.

Lab Activity

Accept all relevant answers.

4. Entrepreneurial Skills-III

Unsolved Questions

A. 1. Services   2. amount   3. Perseverance   4. feedback   5. Scale-up

B. 1. False   2. True   3. False   4. True   5. False

C. 1.
   - Concept: What should my business concept be? How do I know this concept will work?
   - Capital: How much capital need be raised to establish a business?
   - Obtaining materials: Where should the materials be obtained and at what cost?
   - Manufacturing: How do you manufacture (if you are in the product business)?

- Pricing: At what price should I sell the goods in order to generate a sufficient profit? How can I find out how much the consumer is willing to pay?

- Marketing and advertising: How would I inform my customers about my business in order to get them to come to me?

2. Entrepreneurship is the process of coming up with new methods to combine resources. When the market value generated by this novel combination of resources exceeds the market value generated by these resources individually or in other combinations, the entrepreneur makes a profit.

   Four conditions must be met in order to be considered for the possibility to become an entrepreneur. First, there must be chances or situations in which resources can be recombined to generate value. Second, entrepreneurship necessitates individual distinctions, such as preferred access to specific persons or the capacity to identify information about opportunities. Third, taking risks is essential. Fourth, the entrepreneurial process necessitates the management of people and resources.

3. Countless entrepreneurs have taken risks to develop their enterprises to this point. Taking risks, on the other hand, does not imply going into company blindly and expecting huge outcomes. Instead, handling risks successfully necessitates meticulous planning and an underlying strategy.

   The true reasons why entrepreneurs opt to take risks may be boiled down to the five factors listed below.

   - You will never know unless you try.
   - Taking risks educates you.
   - Risk taking is linked to innovation and opportunity.
   - Those that are willing to take risks already have a competitive advantage.
   - Risk-takers may be happy and satisfied with their lives.

4. Planning is fundamental to business growth. It helps to create a vision for a well-established business. A successful business requires strategy to please its customers and excel despite cut throat competition. Let us now learn what exactly is business plan and why it is necessary. After starting a business, entrepreneurs need to think about how to continue to improve and grow by adding value to their business for attracting customers. The following principles need to be considered:

   - Quality
   - Scale-up
   - Provide some offers to your customers.

5. Business planning is important to entrepreneurs. Estimating the amount of material required - Knowing the amount of material required lets the entrepreneur determine the cost of manufacturing a product or the cost of providing a service.

D. 1. **Fulfilled Needs** - These are the needs that customers understand. The needs are met by various companies or governments. For example, the need for travelling modes is covered by both private bus services and state bus or metro services.

Partially Fulfilled Needs - These are needs that are met through different products or services, but customers are not completely satisfied and still have problems using them. For example, people always use taxi services like ola, uber and auto-rickshaws to get to different places, but they struggle to find one on time and end up paying an extra amount for it.

Unfulfilled and Known Needs - These needs are known to customers, but are not met by anyone in the market. For example, residents of small towns had no electricity at all times, and therefore their children could not study after sunset. A company recognized this problem and installed solar lamps, which are charged during the day and can be used at night.

Unknown Needs - These are needs that people have but are not aware of or expect to be addressed by a business. For example, 10 years ago people didn't know that online education is possible. However, through innovation, entrepreneurs have found the technology to make it happen.

2. Some of the ways most entrepreneurs use to solve problems.

Creativity - Creativity means to come up with ideas that others have not thought of before. Creativity does not mean being artistic or being good at drawing. An entrepreneur has to believe that he can think of new ideas to solve a problem.

Innovation - Innovation means coming up with new ideas and finding ways to implement them. The difference between creativity and innovation is that creativity involves only thinking about new ideas, but innovation is also about finding ways to turn those ideas into reality.

Critical Thinking - Critical thinking means understanding the situation or problem by asking questions like why, what, when, how, and investigating the situation or the reason for the problem. Entrepreneurs must always think critically when faced with a challenge. Just worrying about the problems does not make them go away.

3.

Manufacturing Company	Trading Company
Involved in developing the raw materials into finished products to meet the needs of its customers.	Trading companies do not manufacture goods or products.
In this type of business, you can sell the finished product directly to your customers.	Only facilitate the process of the finished product to be brought from the production unit to the purchaser or customer.
Example, Bata makes shoes; it has several factories where shoes are made. This is an example of a manufacturing company.	Example, your local pharmacy/chemist shop sells various medicines manufactured by different companies. It is only involved in the process of procuring the medicines and selling them.

4. a. Open-mindedness

   b. Perseverance

4. Confidence - Confidence means believing in yourself and your approach.

   Independence - Independence means the ability to work alone and the self-confidence to make decisions.

   Perseverance - Perseverance means not giving up and continuing even when difficult situations arise.

   Open-mindedness - Open-mindedness means being open to trying new things and being open to take feedback from others.

   Examples – Aditi Gupta, Founder – Menstrupedia

   Vineeta Singh - Founder and CEO of Sugar Cosmetic

🖥️ Lab Activity

Accept all relevant answers.

5. Green Skills

🔒 Unsolved Questions

A. 1. ODF Plus   2. Diu   3. transport and waste management

   4. stakeholder   5. Forests

B. 1. False   2. True   3. False   4. True   5. True

C. 1. Liter of Light is a global grassroots initiative dedicated to providing those with limited or no access to electricity with affordable, sustainable solar light.

   Liter of Light volunteers teach impoverished communities throughout the world how to use recycled plastic bottles and locally sourced materials to illuminate their homes, businesses, and streets through a global network of partnerships.

   Liter of Light has placed over 350,000 bottle lights in over 15 countries while also teaching green skills to empower grassroots entrepreneurs at each stop.

2. • Private agencies' roles include enforcing laws and policies enacted by the government.

   • Ensuring that government regulations are followed by engaging in official missions;

   • Reporting individuals or groups that violate the law;

   • Educating people and raising awareness about green economy initiatives.

   • Informing the government and assisting it in implementing green policies.

3. **Agriculture** - Agriculture is the process of raising foods for human consumption. It is the most significant component of our economy since it provides us with food. Agriculture has

the potential to harm the environment by overusing land resources, cutting down forests, and polluting air, water, and soil with hazardous chemical fertilizers and pesticides.

Transport - The transportation sector consumes the most gasoline and diesel and emits the most pollution.

A green economy's transportation sector strives

- to use cleaner fuels such as electricity for cars.
- encouraging the use of public transportation, cycling, and other forms of alternative transportation to discourage the use of automobiles

4. Science and Technology - Science and technology are required in all sectors of sustainable development. Scientists can explain technical issues to governments and policymakers. They can also offer long-term answers to improve people's lives. Building Capacity for Sustainable Development is one of them.

Other roles include - investing in the Next Generation's Education, providing Information Access, increasing the scientific basis for decision-making and educating the public

5.

D. 1. A stakeholder is defined as somebody who has an interest or concern in something (company, policy, or activity). A green economy has many stakeholders since it impacts everyone and requires the assistance of many individuals. Example of a stakeholder - Native Tribes - Native or indigenous people are the original inhabitants of a territory who continue to live by their old way of life. Many such tribes in India's hills and forests can benefit from the green economy. For example, tribals in Nangur village in Bastar district, Chattisgarh have greatly benefited from using various parts of the 'Mahua' plant to make eco-friendly plates, cones, and bowls. The tribals have turned this into a lucrative local business.

2. Water Management
   - One of our most valuable resources is water. Billions of people throughout the world lack access to safe drinking water and improved sanitation facilities. Population explosion is also making the situation worse.Conserve water by
   - turning off the faucet when not in use
   - Use wastewater treatment to prevent pollution of water sources.

3. It implies that we must place adequate emphasis on local markets and defend our local economy in order to be self-reliant. As per the central government's 'Vocal for Local' initiative,
   - support local, organic, and natural farming (growing without the use of hazardous fertilizers and pesticides)
   - If possible, grow your own vegetables
   - Eat in-season food rather than processed/packaged food

4. On October 2, 2014, the Prime Minister of India launched the Swachh Bharat Mission to accelerate efforts to attain universal sanitation coverage and to focus attention on sanitation. Under the project, all villages, Gram Panchayats, Districts, States, and Union Territories in India pledged to be "open-defecation-free" (ODF) by October 2, 2019, the 150th birth anniversary of Mahatma Gandhi, by constructing over 100 million toilets in rural India.

   To ensure that open defecation-free behaviours are maintained and that solid and liquid waste management facilities are available, the Mission is progressing to the next Phase II of SBMG, namely ODF-Plus. Under Phase II of the Swachh Bharat Mission (Grameen), ODF Plus activities will reinforce ODF behaviours and focus on providing interventions for the safe management of solid and liquid waste in villages.

5. Mitticool, the brainchild of Mansukhlal Raghavjibhai Prajapati, a modest clay craftsman in Rajkot, Gujarat, is a low-cost clay refrigerator that does not require electricity. Mitticool requires just basic cleaning every two or three days since it uses water's ability to remove heat through evaporation, the age-old idea of 'Surahi' or 'cooling through evaporation.' The top of the unit is filled with water, which slowly drips down the sides, evaporating off the porous clay surface and chilling the interior. This also serves as a water cooler with a tiny faucet tap. It also aids in the reduction of electrical expenditures, which greatly benefits many rural families.

Lab Activity

Accept all relevant answers.