ANSWER KEY

Artificial Intelligence Ver. 1.0

Part A: Employability Skills

1. Communication Skills-I



- 1. Written communication is communication using written words to share ideas or information.
- 2. Verbal Communication is using the words, sentences grammar of a specific language that can be spoken or written to share information with other people or an organization.
 - Non-verbal communication is a method of communication through body language, gestures using signs and hand movements, eye contacts, facial expressions, etc.
- 3. Following are the advantages of oral communication:
 - Direct and interactive method of communication where the impact is spontaneous.
 - · It is time saving.
 - Easy way to exchange ideas.
- 4. Perspective is the fixed idea or thinking that affects our communication. It can be a sender or a receiver of the message affecting the interpretation of the message thus altering the intended meaning of it.



- 1. A sentence is a group of words arranged together and has a complete meaning.
- 2. The two most basic parts of a sentence are subject and a predicate.
- 3. Following are the rules for writing a sentence:
 - It begins with a capital letter.
 - It ends with a full stop or exclamation mark or question mark depending on the type of a sentence.
 - It must contain one subject and one verb with an independent clause.
 - · It should have a meaning.
- 4. Comma is used to mark a pause in a sentence.



Unsolved Questions

SECTION A (Objective Type Questions)

Quiz

- **A.** 1. b
- 2. a
- 3. a
- 4. c

4. True

5. d

5. False

B. 1. True

C.

- 2. True
- 3. False
 - 3. Interrogation
- 4. Assertive

- 5. Assertive
- 2. Assertive6. Exclamatory
- 7. Imperative
- 8. Imperative

9. Imperative

1. Interrogation

- 10. Assertive
- 1. An interjection is a word, phrase, or sentence that expresses emotions, meaning or feeling.
 - 2. Conjunction is a word that connects or joins clauses, words, phrases together in a sentence. Conjunctions are used to coordinate words in a sentence like "but", "although", "while" are some common conjunctions.
- E. 1. Noun-fruits, market

Pronoun- She

Verb- went, buy

Preposition-to

2. Noun-thunder, lightning

Pronoun- I

Verb-scared, am

Preposition-of

3. Noun- Ankit, opinion

Pronoun- what, your

Preposition- about

4. Noun-Teacher, Sunita, Physics, Mathematics

Verb-teaches

5. Noun- Priya, friends, picnic

Pronoun-her

Verb-going

Preposition-on

- **F.** 1. Accept all relevant answers.
 - 2. Accept all relevant answers.
- **G.** 1. Communication
- 2. Motivation
- 3. Persuasion
- 4. Prejudice



H. 1. an 2. The 3. a 4. an, the 5. The 6. a

SECTION B (Subjective Type Questions)

- **A.** 1. Encoding is sending a message in the form of text, signs, symbols or any other visual which the receiver has to decode to know its actual meaning.
 - 2. The word "communication" is descended from the latin word communicare.
 - 3. If the surrounding area of the communication is imbalanced, then, the impact of the communication will not be much matters, fear, anxiety, etc. strongly affects the communication skills.
 - 4. The term conherence refers to the smooth flow of ideas in a text.
 - 5. Oral communication implies communication through mouth. it includes individuals conversing with each other, it can be direct conversation or telephonic conversation.
 - 6. An interrogative sentence
 - 7. 'A' and 'An' are indefinite articles which are used before a noun that are not specific or known before. "A" is used before a word beginning with a consonant (alphabets other than vowels) sound. For example: A book (it can be any book)

A game (it can be any game)

"An" is used before a word that begins with a vowel (a, e, i, o, u) sound.

For example: An umbrella, an hour, an ice cream

B. 1. Written communication is communication using written words to share ideas or information. Sending short messages through phones, writing letters, sending emails, making notes or writing down speech to communicate, spreading information through books and magazines are a few examples of written communication.

Following are the advantages of written communication:

- It is an effective way of communication where the message can be stored for future references.
- It is impact-full and effective.
- It is easy to understand and interpret.
- Documents of written communication act as a permanent record.
- a. Hand movement/body language: One can express an idea or a meaning through
 waving hands during a speech, raising a hand to ask a question or to interrupt for a
 chance, raising a closed fist upwards showing a sign of victory, showing two fingers in
 a fight to show surrender, shaking hands to greet a person, banging a table or clapping
 both hands to applaud etc.
 - b. **Facial expressions:** Facial expressions reflect a feeling of a person who is trying to communicate to give a proper meaning to a message. For example we smile to show our warmth and happiness, frown our brows to show anger, blush to shy and give a sad look

when upset. There are a lot of facial expressions to show different moods of a person at the time of communication.

3. **Prepare:** Prepare the content of your speech. Think about what your audience is expecting you to speak and then plan your content. Make it interesting in such a way that your audience feel engaged and are full of praises for you.

Practice: Rehearse out loud your speech before your D-day. Work to control your voice modulation, make a list of few filler words and plan your body movement and hand gestures. Practice, pause and breathe. Use a clock to check your timings and allow time for the unexpected.

Perform: If you have done the preparation and practiced well, then, half of your battle is won. Just be confident of yourself and do not feel nervous.

4. An adjective is a word that defines a noun or a pronoun.

For example: I have a beautiful dress.

5. The apostrophe is a punctuation mark, and sometimes a diacritical mark, in languages that use the Latin alphabet and some other alphabets. It is used to indicate possessive case, contractions and omitted letters.

C. Competency-based/Application-based questions:

- 1. Sanchit has to follow these rules while writing a paragraph:
 - It begins with a new line.
 - The first line has an indentation.
 - It focuses on a main theme.
 (Accept all relevant answers.)
- 2. Akash should have written: I bought a smartphone. While writing sentences, Akash should follow these rules:
 - "THE" is a definite article which is used before a noun that indicates something clear or obvious.
 - 'A' and 'An' are indefinite articles which are used before a noun that are not specific or known before. "A" is used before a word beginning with a consonant (alphabets other than vowels) sound.

2. Self-Management Skills-I



1. confident 2. positive 3. knowledge

Task (Page 45)

1. Physical 2. Social 3. self confidence







Unsolved Questions

SECTION A (Objective Type Questions)

Quiz

- **A.** 1. a
- 2. d
- 3. a
- 4. d
- 5. c

- 1. Social
- 2. Cultural
- 3. Confidence 4. Physical Factor

Section B (Subjective Type Questions)

- 1. It is the ability to manage your impulse, emotions and behavior. Know yourself so you can manage your emotions and impulses. It acts as a force to have a more successful and satisfying life. Indian system of fasting is an excellent example of self-control. Fasting restricts a person from eating specific food.
 - 2. It is the ability to plan and organise a given task in an effective manner. Good organizational abilities will prevent difficulty in your work and disorder in your daily life. For example, A student needs to have necessary material for the assigned activity, stay in their seat, and finish required work before going to the next assignment.
 - 3. Lack of Self-Confidence can harm your mental health and lead to problems such as Depression and Anxiety.
 - 4. The advantage of having a good hygiene are:
 - a. It helped us to have a better self esteem. so when we take care of ourselves we feel better about ourselves.
 - b. The implementation of personal hygiene habits not only prevents us from in less but also provides added personal and social benefits.
 - 5. Confidence is not the starting point. Confidence is the result of experience. When you take action, plowing through the resistance, anxiety and fear of what lies ahead, that is how you build your confidence. (Accept all relevant answers.)
 - 6. Accept all relevant answer
 - 7. Accept all relevant answer
- 1. Self-Awareness: It is the awareness of your own personality. It is the ability to notice B. your feelings, your physical sensations, your reactions, your habits, your behaviors, and your thoughts. It enables you to learn about yourself in a way no one else can ever teach you. For example, as an individual, we are aware of artistic skills. If, I am good at fine arts, I will surely volunteer to participate in drawing competition.
 - Self-Confidence: It is the trust in your own abilities, qualities and judgment. Some people are born with it and some learn to build up after facing the challenges of life. When you

learn how to be confident, you can use it in your everyday life to tackle all of your goals. You can do any task that is given to you and not scared of taking risks. For example, it's a sense of self-confidence that takes a person on to a stage where speaks in a public gathering.

- **Self-Motivation:** It is the force that drives you to do the things. Everything we do is motivated by some combination of conscious and unconscious needs or desires. Staying motivated is not something that happens naturally all the time. You should be ready to take challenges and open to positive learning. Remember that Impossible itself says 'I am Possible'. For example, it's only self-motivation that makes a good sportsperson.
- **Self-Control:** It is the ability to manage your impulse, emotions and behavior. Know yourself so you can manage your emotions and impulses. It acts as a force to have a more successful and satisfying life. For example, Indian system of fasting is an excellent example of self-control. Fasting restricts a person from eating specific food.
- 2. The Following steps to identify your strengths are:

Identify your strengths by talking to a few people close to you. Listen to them honestly what they have to say good about you. Ask them:

- a. What do you think I am good at?
- b. What are my strengths?
- c. How can I use my strengths to choose my career?
- d. Which task can I do for hours without getting tired?

List down the good things conveyed to you by these people, sit alone and introspect.

If you want to be doubly sure, then, you can also take a personality test by going to a professional. Feel your strength with these good points and what others have appreciated in you.

Use your strength in choosing the correct path for your overall development.

- 3. Being aware of the purpose in life is very important to make your own existence feel. Knowing yourself helps you understand your own identity. It is important to know yourself in order to achieve success in life. It gives you purpose, direction and a true sense of well-being. In this process of knowing yourself it is important to know our:
 - Body and physical challenges
 - Personality in private and public moments
 - Morale and principles
 - Strengths and weaknesses
 - Temptations and frustrations
 - Likes and dislikes
 - · Beliefs and opinions
 - Background and relationships
 - · Positive and negative emotions
 - Tolerance and understanding of others



- Creativity and interests
- · Limits and boundaries
- 4. Social factors include our society and people around us. It can be the people in our classroom, family at home, friends in our colony, colleagues in our workplace, strangers on the street. Each one of us needs a push to start working harder, all of us want to be motivated by loved ones around us.

The pressure of society has a very strong impact on the self-confidence of a person and will affect the performance of a person to a certain level. For example:

Michael Jordan, the famous basketball player, was told in high school that he did not have the skill and felt dejected during his childhood.

- Dr. Seuss, the famous author of children's literature, was rejected by nearly 27 publishers early in his career.
- 5. People whose self-confidence is low, struggle in relationships and at work, don't feel happy, don't cope well with stress and probably lack energy and motivation. They have a sense of failure and are unable to achieve their goals. They give up easily and lack self esteem and self respect making them demoralised.
 - People with high self confidence are optimistic, enthusiastic and are focused. They believe in themselves and are able to achieve their goals. They inspire others. They have high self esteem. They never doubt themselves.
- 6. Three things that should be done for personal grooming in each of CARE, WASH and AVOID to keep clean are as follows:

Care:

- Keep your hair free of dandruff.
- Rub oil/cream to take care of your skin.
- · Brush your teeth daily.

Wash:

- · Wash your hands frequently.
- Take bath every day.
- Wash your clothes regularly.

Avoid:

C.

- Blow your nose /cough into a handkerchief to avoid spreading germs.
- Keep your feet dry.
- Change your socks every day.
- - 2. Self-Control 3. Time Management
 - 4. Self-Commitment

1. Organisational Skills

5. self-confidence



D. Competency-based/Application-based questions:

- 1. Accept all relevant answers.
- 2. Accept all relevant answers.

3. ICT Skills-I



- 1. Two types of operating system are:
- a. Single-user Operating System: This type of operating system allow only one user can access the computer system at a time. The most commonly used single-user operating systems are Palm computer and DOS.
- Multi-user Operating System: In this type of operating system, multiple users can use the computer at the same time. Examples of multi-user operating systems are Linux, Windows, etc.
- 2. Perform the following steps to create a folder:
 - Step 1: Select the location where you want to create a folder.
 - Step 2: Right click in a blank space. A pop-up menu appears.
 - Step 3: Select the New → Folder option. A new folder with the default name "New Folder" will appear.
 - Step 4: Cursor blinks on this new folder. Delete this name and assign a new relevant name to this new folder created.
- 3. System Date and Time appears on the right corner of the taskbar. We can change the default setting by doing the following steps:
 - Step 1: Right-click on the time in the right corner of taskbar to display a pop-up menu.
 - Step 2: Select Adjust Date/Time from the pop-up menu.
 - Step 3: Click on Change button. Change the date and time dialog box will be open.
 - Step 4: Do the required changes in the system date and time.
 - Step 5: Click on Change.
- 4. When the power button is switched on Windows 10 follows the given Start up Process:

As soon as the power is on, ROM loads the BIOS instructions into the computer's memory.

It does Power On Self Test to check that all the hardware devices are functioning properly with constant supply of the electricity. In case there is any error, a beep sound is produced, an error message is displayed on the screen and the system stops loading windows.

Windows Loader will do an initial setup to load windows kernel into the computer's memory (RAM). After this, the Operating System will take over the whole process of controlling and configuring the system.



After the system configuration is done System Utilities and Antivirus will become active to participate till the system is on.

Session Manager will take over and the system is ready for the authentication process to display the user name and password screen.

If the valid username and password is entered, then, the Desktop is displayed and the computer is ready to use.



- 1. It is the address of the web file located on a web server that can be accessed using any web browser on the Internet. It is similar to the address we write on an envelope. URL is translated into a numeric address using the domain name system.
- 2. When a mouse pointer hovers over a word, text or graphics, it changes to a small hand and when clicked it opens a webpage or a website. It serves as a link for connecting many web documents to simplify the process of web browsing.
- 3. It is also known as web. It is one of the services of the Internet and is a huge collection of data and information in the form of webpages and websites containing hypertext and hyperlinks.
- 4. a. It is a phonebook of the Internet that translates each URL into its corresponding IP address. Each device connected to the Internet has a unique IP address.
 - b. The first page displayed when you visit a website is called a homepage. It generally contains the hyperlinks for the other webpages.



- 1. Two types of protocol are:
 - a. SMTP (Simple Mail Transfer Protocol) SMTP is responsible for efficient transfer of emails from the source computer to the destination computer on the Internet. It also notifies the receiver about the emails received.
 - b. FTP (File Transfer Protocol) FTP helps in efficient sharing and transmission of large files and folders on the Internet. If data loss occurs in the network due to data damage or data collision, it tries to recover maximum data and then transfers it efficiently.
- 2. A web browser is an application software designed to access web information through hyperlinks, web pages and websites.
- 3. Web Client is a smart device or a computer operated by the user to access the services of the web server through the Internet browser whereas Web Server is a host computer connected in World Wide Web containing information in the form of web pages and websites. It responds to the client's request. Different web servers all across the Internet are interconnected to form a big web of information.
- 4. Two applications of internet are:
 - a. Email: Electronic mail is sending and receiving messages using electronic medium over the Internet.

b. Chatting: It is text based exchange of messages on a real time transmission over the Internet.





Unsolved Questions

SECTION A (Objective Type Questions)

Quiz

- **A.** 1. a
- 2. c
- 3. d
- 4. a

- 5. b
- 6. b
- 7. b
- 1. Information technology

- 6. Icons
- 3. Procedures 7. homepage

- 5. Operating system 8. Web-browser
 - 9. URL
- 10. Blind carbon copy

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

7. False

D. Plotter- Output

4. Fmail

- 8. False
- 9. True
- 10. True

Flash Drive- Storage Device

6. True

Speaker- Output

Microphone-Input Touch Screen-Input

2. Internet banking

Printer- Output

Hard Disk- Storage Device

Bar code reader- Input

Light pen-Input

Projector- Output

- E. 1. System Software is the kind of Software which is the interface between the application software and system. This kind of Software is written in low level of language where as Application Software is the kind of software which runs according to the user. This kind of software is written in high level of language.
 - 2. Printer is a device that brings images and text on the page with the help of commands given through a network on the other hand Plotter is a device that draws picture on the page with the help of commands given through a computer.
 - 3. A serial port is able to transmit a single stream of data at a time. It sends data bit by bit after sending a bit at a time whereas a parallel port is able to transmit multiple data streams at a time. It takes place in a parallel line of eight bits at a time.
- F. 1. SMTP
- 2. TCP/IP
- 3. FTP
- 4. HTTPS

Section B (Subjective Type Questions)

- 1. Information and communications technology is a system used to control manage process and create information through telecommunications technology and computers.
 - 2. We should be able to safely switch on computer login, logout and shut down safely.



- 3. A light pen is a pointing device shaped like a pen and is connected to a VDU. The tip of the light pen contains a light-sensitive element which, when placed against the screen, detects the light from the screen enabling the computer to identify the location of the pen on the screen. We generally use it to make a selection or draw anything on a screen.
- 4. A laser printer works just like a photocopy machine that prints the output at high-speed and good quality. It creates images using a laser beam and powdered ink called toner. It is more expensive than inkjet printers and can be used for home or business purposes
- 5. Motherboard or the main board consists of a board containing electric circuits that connects all the important components of the computer. If the CPU is the brain of the computer, then, the motherboard is the central nervous system making it the backbone or spine of a computer system.
- 6. a. Arithmetic Logic Unit
 - b. Control Unit
 - c. Central Processing Unit
- 7. Control Unit controls the flow of data from input device to memory.
- 8. **Email:** A method of exchanging digital messages between people those are using electronic devices. Helps to send and to receive digital messages over the internet.
 - **Postal mail:** It is gerenal mail, it can spread without electronically. For postal mail delivery there need complete and clear address of the receiver.
- 9. When different devices of different hardware and software configuration communicate in a network, then, there has to be a common set of rules to be followed to avoid data damage and data collision. These standardised sets of rules that govern the transmission of data and information efficiently between different computers connected in an internet are called protocols. There are different types of protocols used for different types of data transmission. Two popular protocols are:
 - a. HTTP (Hypertext Transfer Protocol)
 - b. SMTP (Simple Mail Transfer Protocol)
- 10. ALU performs logical operations like OR and AND
- 11. A web browser is an application software designed to access web information through hyperlinks, web pages and websites.
 - It simplifies the process of navigating the internet by providing a graphical user interface. With a few mouse clicks by selecting menus, sub-menus and other options, the browsing can be done easily and the user does not have to learn text based commands. Some commonly used browsers are Google Chrome, Mozilla Firefox, Microsoft Edge, Internet Explorer, etc.
- 12. ICT skills needed at home are:
 - a. Using connectivity softwares like video conferencing
 - b. Using various types of social media

- 13. She should use Whatsapp messenger service.
- 14. He should use Youtube.
- 15. a. Phone b. Calender c. Gallery d. Camera
- **B.** 1. With the inclusion of technology in our daily lives, our workplace is no longer our office. With the use of technology, you will see there are many people who have started the concept of "Work from Home". ICT in our professions can be used in many ways:

Maintenance of Records: There are software tools that are designed specifically to maintain employees' records. These tools have the capacity to maintain intra office records like employee's leaves, insurance, tax, etc.

E-Commerce: With the prevalence of e-commerce, businesses have a new channel for sales and services. It has changed the way our society spends money. Buying and selling of products have become very convenient.

Handling of Accounts: There are various tools available that facilitate the accounting jobs that are required for business and personal purposes. You don't need a professional to make a balance sheet or Profit and Loss accounts. An individual can do it on his own with help of accounting tools easily available.

E-Banking: Banking transactions do not always need going to bank for them. Banks are now available in an online mode. So much so that new accounts can also be created in an online mode. Movement of money in an online mode is always a catalyst to the developing economy of a country.

2. **Data:** It is an individual unit that contains raw material given as input in ICT system. This data is interpreted to generate an information/processed data. For example, student marks of all subjects entered in a system.

Procedures: These are methods used to pass data and information to people involved in ICT system. For example, using code designed in any specific computer language to generate a report card.

Information: It is the processed data or output/result generated in ICT system. For example, generating report card of marks entered as data.

People: People involved in giving input and generating output using the procedures. They use the generated information for the specific purpose. For example, marks entered by the teacher, report generated by staff of computer department in a school.

Software: These are programs and applications used in ICT system. These are available both as front end and back end tools. For example, MS Word, MS Excel and Visual Basic.

Hardware: All physical components of the ICT system which we can touch and feel are called hardware. For example— Input Devices (mouse and keyboard), Output Devices (Monitor and Printer), Processing Device (Central Processing Unit) and Storage Devices (Hard Disk).

- Motherboard or the main board consists of a board containing electric circuits that connects
 all the important components of the computer. If the CPU is the brain of the computer,
 then, the motherboard is the central nervous system making it the backbone or spine of a
 computer system.
- 4. All computing work revolves around three parts which are input, process and output. These terms are interrelated.
 - An input is accepted by the user through the input devices.
 - It is then processed by CPU and sent to the user as an output using output devices.
 - There can be a need to store the output for later use in the storage devices.
 - Sometimes the result generated acts as an input for the next stage of data flow.

This flow of information follows a cycle which is known as the Input-Process-Output Cycle.

- 5. The devices which help to give data or instructions to the computer are called input devices. The most commonly used are keyboard and mouse.
 - An output device is a physical component that converts the processed data or information into a human readable format.
- 6. **Windows:** The first version of Windows launched by Microsoft in 1985 which was an extension of the Disk Operating System. The most important change is the support of Graphical User Interface where mouse as an input device played a very important role. Following are some of its important features:
 - Initial versions supported single user at a time but now new versions support both single user and multi users at a time.
 - · It has multitasking features.
 - It has a Graphical User Interface where the user can get its work done by a few simple mouse clicks.
 - It provides easy access to the Internet.

Some of the famous versions are: Windows 3.0, Windows 95, Windows NT, Windows 2000, Windows 7, Windows 8.1, Windows 10 and the latest in the market is Windows 11.

Linux: Linux is an open source operating system having UNIX like features. It was originally created by Linus Torvalds in 1991. It is also known as the Operating System of the future. Some of its important features are:

- It has a graphical user interface.
- Free and open source operating system. Anyone with GNU General Public License (GPL) can run, modify and even sell the software.
- It supports multiuser and multitasking. Several users can run multiple programs or processes simultaneously on one system.
- It has a hierarchical file system to represent information.
- Different variants of Linux are available in the market like Red Hat, Ubuntu, Arch Linux etc.

7. Unix is one of the oldest, reliable and powerful Operating Systems developed at AT&T's Bell Laboratories in the early 1970's. It has a simple user interface called Shell which interacts with the kernel to get the work done.

Some of its important features are:

- It has a character user interface.
- It supports multiuser and multitasking. Several users can run multiple programs or processes simultaneously on one system.
- It has machine independent architecture written in high level language.
- · It has a hierarchical file system to represent information.
- 8. The steps to shut down a computer are:
 - Step 1: Click on Start button.
 - Step 2: Select the Shut down button.

OR

- Step 1: Press Ctrl+Alt+Delete.
- Step 2: Select the power button in the bottom-right corner of the screen.

OR

- Step 1: On the desktop, press Alt + F4 keys. It will display the Shut Down Windows screen.
- Step 2: Select the Shut down option.
- 9. File is defined as a program that stores the data organized in a specific format. It can be an executable (exe) file for running a program, a Word document, a spreadsheet, an audio, a video or a program written in any programming language. A folder is a directory created for storing the related files or sub folders under a specific name.
- 10. Let us do the given steps to create an email account in gmail email services:
 - Step 1: Connect your computer to the Internet and type www.gmail.com in the address bar browser window.
 - Step 2: Click on Create account option. It will display a list of three options: "For myself"—if you wish to create an account for yourself, "To manage my business"— if you want to create an account for your business purpose. Select the option accordingly. We will follow the steps by selecting "For myself".
 - Step 3: Click on "Next" button
 - Step 4: A window will open which will ask for the new username and password. It is always advisable to choose a strong password so that it is difficult for others to have access to your account. At the time of assigning a username, you may get a message "this user already exists" as there are so many users. This is to take care that only unique email ids are created. So, keep trying different combinations to create a unique username. After this is done, click on "Next" button.
 - Step 5: A window will be displayed which will ask for some additional data like date of birth, alternate email address, email recovery questions etc. After you specify these details, click on the "Next" button.



- Step 6: When you click on the Next button, Google will send a verification code on your mobile number that you have entered in the previous steps. The next screens ask to enter the verification code. After entering the code, when you click on the Verify button, a window will be displayed with details of the "Privacy Policy". Select "I agree" option and then click on "Next" button.
- Step 7: After this, an account is created and a homepage of the newly created Gmail account will be displayed.
- 11. It is a campaign launched by the Government of India to make our country digitally equipped. Prime Minister Narendra Modi launched the campaign on 1st July 2015. Under this scheme all the government services are now available electronically for better and faster execution of services to Indian citizens. Digital India has immensely improved the online infrastructure of our country. The country now has better Internet connectivity and progressed in the field of Information Technology.
- 12. An email address is a unique logical address of an email account in any email service provider.

 A user can send and receive messages using an email address. It is made up of:

Username: It is a unique name which is not case sensitive and spaces are not allowed.

@sign: It works as a separator of the username and domain name in an email address.

Domain name: It is the name of the email service provider. For example— gmail, yahoo, hotmail, etc.

C. Competency-based/Application-based questions:

b

4. Entrepreneurial Skills-I



- 1. Two types of business are:
 - a. Manufacturing: This kind of business uses raw material, labour, technology, capital and other resources for the production of finished goods.
 - b. Merchandising: This is the most common type of business we come across in our daily life.
- 2. Hybrid business is a mix of two or more different types of businesses. It can be in service or manufacturing or merchandising or all of these.
- 3. This kind of business provides services in the form of consulting, accounting, hospitality and many more of such types which can be delivered either physically or in a digital form through the Internet or mobile apps.



- 1. Assets are the items your company owns that can provide future economic benefit. Liabilities are what you owe other parties.
- 2. Some advantages of partnership are:
 - a. Can be easily formed and is free from legal restrictions.
 - b. Profits and liabilities are shared by the partners.
 - c. Shared resources provide more capital for the business.
 - d. Has the ability, experience and talents of the partners.
 - e. Less damages due to shared losses and risks.
- 3. Some disadvantages of corporation are:
 - a. Expensive to form and operate.
 - b. More administrative duties and management formalities.
 - c. Different tax policies for different types of corporations.





Unsolved Questions

SECTION A (Objective Type Questions)

Quiz

- **A.** 1. b
- 2. a
- 3. b
- 4. a
- 5. a

- 1. Limited liability company (LLC)
- 2. small scale business

- 3. Merchandising
- 4. Business
- 5. Promote the business

1. Partnership

- 2. Manufacturing

4. Liability

5. Entrepreneur

- 3.
- 4.

Large-scale

1. 1. True

D.

2. False

2.

- 3. False
- 4. True

10. True

- 5. True
- 6. True

- 7. True
- 8. False
- 9. False

5.

Section B (Subjective Type Questions)

- 1. A businessman is a person who start a new business and usually take risk on his own money to start the venture. For example: Career coaching, 3D-Printing services, Bakery.
 - 2. It is important to take feedback from the customers in the long run. You can use the feedback to improve your product and reach out to a larger group for future expansion of the business.



- 3. Corporation is a business organisation with a separate legal entity created by individuals or shareholders who come together to pursue a common goal. They elect a board of directors to look after the organization's activities and are the organisation's policy setters. Corporations can be business oriented profitable organisations or non-profit charitable organizations. Some of the famous corporations are Coca-Cola, Johnson & Johnson, Microsoft etc.
- 4. The two advantages are:
 - Members have flexibility in structuring the company management.
 - Owners are not personally responsible for business debts and liabilities.
- 5. An asset is something containing economic value that an individual, corporation, or country owns or they controls with the expectation that it will provide a future benefit to them. For example: Advances paid to employees or suppliers.
 - Cash surrender value of life insurance policies.
- 6. Entrepreneurship is setting your own business in an innovative manner which may have great risks and desires to earn more profits. Entrepreneurship, thus involves taking risks with innovation, planning and decisions so as to increase productivity in any field business, agriculture, social work, education, etc.
 - Entrepreneurship is the act of executing an innovative idea in a business. The output of this innovative process of setting up a business is called an **enterprise**.
- 7. Entrepreneurship should have a strong perception of running a business in an innovative manner. An entrepreneur should implement his plans and ideas in such a way that helps him achieve long term goals of his business with greater profits.
- 8. **Visionary and Leadership Qualities:** Entrepreneur should have strong leadership qualities and a strong vision of earning maximum profits through his innovative new venture. The employees working in his business will strongly believe him and respect him. They will follow his commands even when the business is in a state of turmoil.
- 9. Following are some of the challenges of an entrepreneur:
 - · No Regular Income
 - Emotional Risk
 - No Fixed Hours of Working
 - · No Personal Time
 - Market and Operational Challenges
 - Management Issues
- 10. Market leader who creates his own market.
- 11. Food stall business, Parlour
- 12. A Product-Based Company is one that has its own product to sell to consumers through the market. The client pays for the physical or digital exchange of the stuff. This is because one can see or touch the product whereas a Service-Based Company is an enterprise, that

offers services to its clients. The client pays for the experience. This is because one can only experience it.

- 13. a. Sole Proprietorship
 - b. Its features are given below:
 - Single owner controls the business and makes all the decisions.
 - All profits are taken by the owner.
 - Easy to set up with minimum investment.
 - Owner makes his own rules.
 - Flexibility in running the business.
 - c. Social objectives of his business are:
 - Production of quality stationery items.
 - Providing facilities for the spread of literacy, education, etc.
 - Provide more benefits at lower prices of products.
 - Provide fair pay to the employees working in the shop.
- 14. Doing a business with a new idea is always associated with risk. But taking a calculated risk is an important element of entrepreneurship. This will bring change in the society by bringing new products and services.
- 15. A manufacturing business is one that converts raw material(s) into finished product(s) to meet the demands of the customer. In this form of business, the finished product can be directly sold to the customer whereas a trading business does not manufacture a good or product but only facilitates the act of bringing the finished goods from the manufacturing unit to the buyer or customer (who is ready to pay for the produced good).
- B. 1. **Partnership:** Partnership is formed by 2 person, it start with an agreement among partners. unlimited liability and limited life. partner is a agent of the partnership.

Corporation: Corporation is formed by 5 person, it start with the issuance of a certificate of incorporation issued by SEC. limited liability unlimited life, shareholders do not act as agents of the corporation.

2. Advantages of Sole Proprietorship

Some advantages of sole proprietorship are:

- Single owner controls the business and makes all the decisions.
- All profits are taken by the owner.
- Easy to set up with minimum investment.
- · Owner makes his own rules.
- Flexibility in running the business.

Disadvantages of Sole Proprietorship

Some disadvantages of sole proprietorship are:

- Owner is liable for business debts and failures.
- · Personal assets are at risk.
- Limited resources and funds to manage a business
- 3. The three important features of a business are:
 - It requires initial investment in terms of time and money.
 - It is an economic activity related to trading with no emotional objectives.
 - It involves manufacturing, purchasing and selling of goods (raw material or finished) or services to meet the needs of the customers in the market.
- 4. Step 1: Plan and finalise a business idea: This is a very important step where you make a choice of starting your own business with your planned idea. This could be:
 - Something you are interested in.
 - Something related to your skilled learning.
 - · Something that the market requires.
 - Step 2: Plan and finalise your finances: Before you implement your business idea, you need to have a clear picture of your financial status. You need to figure out how much money you'll need to start your business and let it survive for at least a year without profits. The money you are planning to invest in business will be:
 - Taken from your savings and personal assets.
 - Borrowed from banks or any other financial company.
 - Utilised from the profit of some other business.
 - Step 3: Choose your legal business structure: Here you decide whether you want to be a sole proprietor or you wish to start a business in a partnership or you plan to start a Limited Liability Company. After this, you finalise aspects like business name, tax details, employee details, etc.
 - Step 4: Finalise the business location: Here you finalize your business location based on the location of your target market, business partners and your personal preferences. You plan to buy, rent, or build the prime location. Factors like access to talents, network opportunities, business and investor friendliness, low taxes, etc. play an important role in this
- 5. The National Objectives is being an important part of the country, every business must have the objective of fulfilling national goals and aspirations.
 - The goal of the country may be to provide employment opportunity to its citizen, earn revenue for its exchange become self-sufficient in production of good and services, promote social justice.

6. The process of entrepreneurship development follows the given steps:

Generate a business idea: This is the first step of developing an enterprise. An idea based on your interest, passion, hobby or market potential needs to be finalised. Once an idea is finalised, you discuss it with your associates in the business area or with the people around you who can provide vital feedback by playing prospective customers.

Structured evaluation of business idea: In this step, you evaluate your idea by finding out the pros and cons of the competitive market in the business and the associated risks. You also consider other factors like labour, money investment, location, etc. for the success of the business.

Developing a business plan: Developing a proper business plan is one of the important processes of entrepreneurship development. It helps you plan the strategies of your business, managing your funds and targeting prospective customers.

Gathering the resources: This includes your funds, labour (skilled and unskilled), raw material and business associates. Everything needs to be channelised properly for a good start in a business.

Framing the organisational hierarchy: In this, you design your business hierarchy. This question of how many employees need to be recruited and at what level they need to be trained must be addressed. This helps you to deal with the day-to-day problems of different departments in the organisation.

Efficient management of the new business: In this step the actual working of the system is checked to deal with the practical issues. The short term and long-term operational goals are set to handle the problems.

Planning the future growth: A business is always in a working mode and deals efficiently with day-to-day issues. Somewhere down the line, there will be a time to plan for the future growth and development of the business. If everything goes well and the business curve shifts towards profit, then an entrepreneur can decide to invest in its expansion.

- 7. Every successful entrepreneur has its own individual traits and qualities but some of the core skills of a successful entrepreneur are listed below:
 - An entrepreneur should always be disciplined, dedicated and hard working from a very early stage.
 - He should always be highly optimistic and have a positive approach to deal with the obstacles in his business venture.
 - He should be innovative at all stages to meet the dynamic needs of the customers and to increase market potential of his business.
 - He should be very calculative while taking risks to avoid any negative impact on his enterprise.
 - He should have good social skills to build his network of potential investors, suppliers, customers, and creditors.

- He should be a confident person with good communication skills.
- He should maintain good relations with employees and society at large.
- 8. **Innovation:** It means doing something in a creative and different way. This is the key element of entrepreneurship. Opening a roadside restaurant is just like opening a business but bringing the element of "Home cooked food for the people in a Food Truck" is called an innovation in business.

Organisation: This plays an important role if a startup is launched at a large scale with a big investment. Though an entrepreneur is a person leading the whole business with his ideas but the other employees working in an organisation are equally important for the success of the startup.

Risk bearing: Doing a business with a new idea is always associated with risk. But taking a calculated risk is an important element of entrepreneurship. This will bring change in the society by bringing new products and services.

Perception: Entrepreneurship should have a strong perception of running a business in an innovative manner. An entrepreneur should implement his plans and ideas in such a way that helps him achieve long term goals of his business with greater profits.

9. A businessman uses traditional ways of doing business but an entrepreneur goes for innovative ways of doing a business. Let us see the main differences between the two:

Businessman: A businessman is a person who starts a business based on an idea already existing in a society.

For example: opening a grocery shop, mobile shop etc.

Market player who creates his own place in the existing market. Risk factor is less.

Businessman follows traditional procedures. high profits.

Entrepreneur: An entrepreneur is a person who starts an enterprise with a new idea or concept. For example, selling products through online services.

Market leader who creates his own market. risk factor is high.

Entrepreneur follows unconventional procedures.customers, employees, profits, and society.

- 10. Entrepreneurs provide people with good quality products and services which inspires them to push the boundary of social advancement. They initiate a positive change in the workplace and in the lives of the people associated with them. They work and live for the better. some of the important roles of an entrepreneur to bring social development are the following:
 - Create employment opportunities for many people.
 - Provide basic necessities of the society.
 - Innovate to improve quality of the people.
 - Provide more benefits at lower prices of products and services
 - · Redistribute the income and wealth.

C. Competency-based/Application-based questions:

- 1. a. Entrepreneur
- b. Employee
- c. Entrepreneur

2. a. Hybrid

- b. service
- c. service

5. Green Skills-I



) Task (Page 132)

- 1. The government of India launched the Green Skills Development Programme (GSDP) in India in the year 2017.
- 2. People possessing Green Skills are getting jobs in the fields of agriculture, manufacturing, research and development (R&D), administrative, and service activities that are aimed at sustaining and protecting the environment. These jobs are called Green Jobs.
- 3. Three components of green economy:
 - a. Renewable energy
 - b. Green buildings
 - c. Green transport
- 4. Soil Pollution is contamination of soil due to presence of pollutants or chemicals which are toxic for plants and animals living in that area. Some pollutants are naturally accumulated in soil due to precipitation. Some are accumulated due to human activities.





Unsolved Questions

SECTION A (Objective Type Questions)

Quiz

- **A.** 1. a
- 2. b
- 3. a
- 4. b
- 5. d
- 6. c

B. 1. ecosystem

- 2. April 22
- 3. recycled
- 4. Agrochemicals

- 5. aquatic
- 1. False 2. False
- 3. True
- 4. True
- 5. False
- 6. False

- 7. True
- 8. False
- 9. False

Section B (Subjective Type Questions)

A. 1. By forming vegetation, constructing rock ripraps, planting trees and growing native grasses and shrubs along a stream bank we can protect Stream banks from erosion.

- 2. Methane and Nitrous Oxide
- 3. Recycling is a process in which the waste material is reproduced to create another product which can be used for some other purposes.
- 4. Global Warming is an increase in the average temperature of the earth mainly due to greenhouse gases (mainly carbon dioxide) produced by a lot of human activities.
- 5. Exploitation of natural resources is known as pollution. For example, humans have been cutting down forests to clear land to grow crops for centuries and due to this deforestation there is a change in the climatic conditions.
- 6. It will help in attainment of Nationally Determined Contributions (NDCs), Sustainable Development Goals (SDGs), National Biodiversity Targets (NBTs) and Waste Management Rules 2016.
- 7. Farming, architecture and science
- 8. It supports a well-planned transportation system with minimum damage to the forest and environment. It also promotes efficient use of fuel that produces minimum greenhouse gases and also uses alternate sources of fuel like CNG, battery, etc.
- 9. Well-being and prosperity for all people by providing good education, decent livelihoods and jobs.
- 10. CNG, LPG, Natural gas, etc.
- 11. a. By planting more and more trees
 - b. By preventing excessive degradation etc.
- 12. All relevant answer
- 13. Solar energy, wind energy, bio energy, etc.
- 14. a. By doing rainwater harvesting.
 - b. Setting up water treatment plants to reuse the water for irrigation or other purposes.
 - c. Judiciously using water at homes, restaurants, social gatherings and workplaces.
- **B.** 1. Some factors responsible for Environmental Imbalance are:

Population Explosion: There has been a rapid rise in population all across the world in the last few decades. The rapid decline in death rate due to a lot of development in the medical sciences, increased birth rate due to lack of knowledge related to fertility and increased life expectancy are the reasons of population explosion.

Pollution: Pollution means contamination of our surroundings that toxifies air, water, soil, etc. due to the presence of harmful substances that have an adverse effect on living organisms. Human activities like urbanisation, industrialisation, mining, and exploration are the reasons of global environmental pollution which has severe long term consequences.

Global Warming: Global Warming is an increase in the average temperature of the earth mainly due to greenhouse gases (mainly carbon dioxide) produced by a lot of human activities. It has resulted in melting of glaciers, rising sea level and intense heat waves all across the globe.

- 2. Given below are some of the methods to reduce food wastage:
 - **Heating:** Microorganisms are destroyed by heat at specific temperature. This process includes pasteurisation, cooking and sterilisation.

- **Removing moisture from food:** This will hinder the growth of microorganisms on food by drying, salting, pickling, sugaring and smoking food.
- **Use of Preservatives:** Food preservatives like Sodium Benzoate, Parabens, Formaldehyde, etc. are used to increase the shelf life of food items by keeping it fresh for a long time.
- 3. The United Nations Environment Programme (UNEP) has defined the green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient and socially inclusive".
- 4. The main caused of soil pollution are:
 - 1. Deforestation
- 2. Chemical Fertilizers
- 3. No-till farming

- 4. Absence of wind breaks
- 5. Not implementing terrace farming
- 5. **Abiotic:** It is the non-living component of our ecosystem. There are five important abiotic factors: sunlight/temperature, soil, minerals, wind/air and water.

Biotic: It is the living component of our ecosystem. For example, living organisms like plants and animals.

- 6. People with green jobs ensure that resources in an economy are allocated in a fair and an equitable manner. These jobs help in:
 - Ensuring judicious consumption of energy and raw materials.
 - Reducing the greenhouse gas emissions especially that of Carbon Dioxide.
 - Minimising pollution at all levels.
 - Putting in place proper waste management systems that minimise waste generation and contamination of the environment.
 - Protecting and restoring our ecosystems.
 - Positively impacting our country's Green Economy.
 - Producing eco-friendly goods or services.
- 7. This green project is wholly owned by waste pickers. The Cooperative has members who are engaged in door step collection of waste in Pune. This integrates informal waste pickers into Pune city's Solid Waste Management System.
- 8. Social benefits of green economy are:
 - It improves the health and well-being of the society which increase the productivity of the country and reduce the costs of health care.
 - It improves livelihood status and poverty rate.
 - It reduces environment related health problems.
- 9. a. Jobs that are aimed at sustaining and protecting the environment.

- b. The specialised skills which are important for building or developing Sustainable Green Economy are called Green Skills.
- c. The United Nations Environment Programme (UNEP) has defined the green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient and socially inclusive".

10. It is important to promote green jobs because:

- It ensures judicious consumption of energy and raw materials.
- Reduces the greenhouse gas emissions especially that of Carbon Dioxide.
- Minimises pollution at all levels.
- Puts in place; proper waste management systems that minimise waste generation and contamination of the environment.
- · Protects and restoring our ecosystems.
- Positive impacting our country's Green Economy.
- Produce eco-friendly goods or services.