Class: XI (SUBJECT-4)   Duration: 3 hrs.
Date: Max Marks: 60
Name: ……………………………   Exam No. :

MARKING SCHEME

SECTION A: OBJECTIVE TYPE QUESTIONS

Q.(1) Answer any 4 out of the given 6 questions on Employability Skills.   (4 x 1 = 4)

(i) What is the purpose of communication ?
    (a) Inform(tell someone about something)
    (b) Influence (get someone to do something you want)
    (c) Share thoughts, ideas, feelings
    (d) All of the above

(ii) ………………. refers to a group of people who have complementary skills and work towards a common goal.
    (a) Group   (b) Company
    (c) Team   (d) None of these

(iii) …………………. refers to the things people do to keep themselves neat and presentable.
    (a) Team norms   (b) Team Process
    (c) Grooming   (d) None of these

(iv) ………………. is not a word processor.
    (a) MS-Word   (b) OpenOffice Writer
    (c) MS-Excel   (d) Google Docs

(v) The process of setting up a business is known as ……………………
    (a) Manufacturing   (b) Trading
    (c) Entrepreneurship   (d) None of these

(vi) Expand UNEP
    (a) United nations Entertainment Plan   **(b) United Nations Environment Program**
    (c) United nations Entry Program   (d) None of these

Q.(2) Answer any 5 questions out of the given 7 questions on Computer Organization.
(5 x 1 = 5)

(i) What does the term IPO stand for in the context of computer operations ?
    (a) Input-Process-Output   (b) Input-Program-Output
    (c) Instruct-Process-Operate   (d) Input-Process-Operate

(ii) What is the advantage of using high level programming languages over machine language ?
    (a) Faster execution   (b) Direct electric signal interpretation
    (c) Simplicity for developers   (d) Better compatibility with binary code

(iii) Which of the following input devices is used to capture images of physical documents ?
    (a) Scanner   (b) Mouse
    (c) Keyboard   (d) Joystick

(iv) Which of the following is an example of an input-output device ?
    (a) Printer   (b) Scanner
    (c) Touchscreen   (d) Speakers

(v) Which of the following is not an example of an operating system ?

(a) Windows   (b) MacOS

(c) Linux   **(d) Chrome**

(vi) Mouse can stop working due to :

(a) Loose connection   (b) Internal damage

(c) Both (a) and (b)   (d) None of these

(vii) If you are faced with networking problems, you must press on Control Panel > ………..

(a) Sharing Center   (b) Network

(c) Network and Sharing Center   (d) None of these

Q.(3) Answer any 6 questions out of the given 7 questions on networking and Internet.

(6 x 1 = 6)

(i) What is a node on a computer network ?

(a) A device that is not connected to the network

(b) A device that is connected to the network and has a unique network address

(c) A software program used for network management

(d) A protocol used for data transfer

(ii) What is a channel in a computer network ?

(a) A physical connection between devices

(b) A wireless connection between devices

(c) A communication path between two or more devices

(d) A network management software

(iii) What is the definition of digital literacy ?

(a) Basic computer skills

(b) Understanding, evaluating and using ICTs responsibly

(c) Knowledge of social media platforms

(d) Online gaming proficiency

(iv) Which network service is used for file transfers between a client and a server ?

(a) Email   (b) Telnet

(c) World Wide Web   **(d) FTP (File Transfer Protocol)**

(v) What is the main function of the World Wide Web (WWW) ?

(a) Sending emails   (b) File transfer

(c) Remote login   **(d) Accessing and navigating web pages**

(vi) ………………. passwords create vulnerabilities that can be exploited by any attacker.

(a) Strong   (b) Name based

(c) Weak   (d) Incomplete

(vii) The shortform of "Malicious software" is :

(a) Maliware   (b) Muscleware

(c) Malicware   **(d) Malware**

Q.(4) Answer any 5 questions out of the given 6 questions on Office Automation Tools.

(5 x 1 = 5)

(i) What is the purpose of Word Processing software ?

(a) Editing images   (b) Managing databases

(c) Creating Spreadsheets   **(d) Creating and editing text documents**

(ii) What type of software is OpenOffice Writer ?

(a) Graphic design software   (b) Video editing software

(c) Word processing software   (d) Web browsing software

(iii) Which software from LibreOffice is for spreadsheet ?

(a) Writer   (b) Excel

(c) Halo   **(d) Calc**

(iv) By default, how many sheets are there in a newly opened spreadsheet ?

(a) Three   (b) Two

(c) One   (d) Four

(v) With OpenOffice …………………. you can explore a wide range of slide transition effects

and animation options.
(a) Calc (b) Writer
(c) Impress (d) Draw
(vi) Which element of the Impress interface is present at the bottom of your window ?
(a) Menu Bar (b) Work Area
(c) Scroll Bar **(d) Status Bar**

Q.(5) Answer any 5 questions out of the given 6 questions on RDBMS. (5 x 1 = 5)

(i) What does RDBMS stand for ?
(a) Rapid Database Management System
(b) Relational Database Management System
(c) Resourceful Data Backup Management System
(d) Recursive Database Model System
(ii) What is MySQL ?
(a) A programming language **(b) A software for managing databases**
(c) A graphical design tool (d) A data visualisation tool
(iii) Which language is used to manage data in a database ?
(a) Java (b) HTML
(c) SQL (d) C++
(iv) Which statement is used to insert a row in a table ?
(a) ADD ROW **(b) INSERT ROW**
(c) CREATE ROW (d) PUT ROW
(v) What is the purpose of the SELECT statement ?
(a) To update data in a table (b) To delete data from a table
(c) To insert data into a table **(d) To retrieve data from a table**
(vi) What command means "display all columns" ?
(a) SHOW COLUMNS (b) DISPLAY COLUMNS
(c) LIST COLUMNS **(d) SELECT ***

Q.(6) Answer any 5 questions out of the given 6 questions on Fundamentals of Java. (5 x 1 = 5)

(i) Graphical User Interface
(ii) The getText() is used to _retrieve_ text.
(iii) Which operator is used to perform addition in Java ?
(a) + (b) -
(c) * (d) /
(iv) What will be the value of x after the following code :
int x = 5;
x += 3;
(a) 8 (b) 5 (c) 3 (d) 15
(v) What is the result of the expression 8%3 in Java ?
(a) 2 (b) 3 (c) 2.67 (d) 2.0
(vi) Which operator is used to increment a variable by 1 in Java ?
(a) ++ (b) -- (c) += (d) *=

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (3 x 2 = 6)

Q. (7) Explain the 7Cs of effective communication.

Ans. : Clear information, Complete information, Concise message, Concrete and coherent presentation, Correctness of facts, Consideration of the message and the receiver, Courtesy towards receiver.

The 7Cs of effective communication are principles that guide the process of creating clear and meaningful messages. They are helpful in ensuring that communication is accurate, concise, and easily understood by the audience. Here are explanations of three of the 7Cs:

Clarity: Clarity in communication means that the message is clear, easily understandable, and free from ambiguity.

Conciseness: Conciseness refers to conveying information in a clear and efficient manner without unnecessary details or verbosity.

Completeness: Completeness means providing all necessary information and details required for the receiver to fully understand the message.

Clear information : Choosing appropriate words and phrases to convey ideas in the form of a message is very important. You need yourself to be fully clear of what exactly your message is, what the objective of your message is, and to whom you are going to share it with.

Complete information : Completeness of information is very important as it brings the desired results without additional messages, builds goodwill. Add 5 W's in your information : who, what, when, where, why.

Concise message : In this world, every person lacks time. Hence, it is necessary to keep the message crisp and concise. It adds not only to the efficacy of the message but also saves the receiver's time in understanding it.

Correctness of facts : Make sure that whatever you communicate is correct to the best of your knowledge. This can be ensured by using the right level of language, presenting accurate facts, words and figures.

Q. (8) Write and explain any four points that are the part of the personal grooming checklist.

Ans. :

Hair Care : Keeping hair clean, styled, and healthy is an important aspect of personal grooming. Regular washing, conditioning, and trimming help prevent split ends and maintain a polished look.

Skin Care : Skin is one of the first things people notice, so it's important to maintain its health and cleanliness. A good skincare routine involves cleansing, moisturizing, and protecting your skin from the sun.

Nail Care : Well-maintained nails are essential for personal grooming, as they help in projecting a neat and professional image. Clean and trimmed nails are hygienic and visually appealing.

Clothing and Personal Hygiene : Wearing clean and well-fitting clothes contributes significantly to your overall grooming. Additionally, good personal hygiene such as regular bathing and wearing deodorant is essential for freshness and a positive impression.

Use a good posture

Bathing or shower every ay

Shampooing the hair regularly
Styling hair in a neat manner
Brushing teeth regularly
Trimming nails and keeping them clean
Wearing clean and ironed clothes which fit properly

Q. (9) What is a word processor ? Mention its advantages over the use of typewriter.
Ans. : A **word processor** is a software application used for creating, editing, formatting, and printing text documents. Unlike a typewriter, which is a mechanical device for typing, a word processor allows users to input, modify, and manage text digitally on a computer or other devices. Popular word processing software includes **Microsoft Word**, **Google Docs**, and **LibreOffice Writer**.
Advantages of a Word Processor Over a Typewriter

1. **Editing and Modifying Text**:
2. **Formatting and Styling**:
3. **Spell Check and Grammar Assistance**:
4. **Document Storage and Portability**:
5. **Search and Find Features**:
6. **Multiple Document Handling**:

Q. (10) What are the three types of business activities ? Explain.
Ans. :

Manufacturing Business : A **manufacturing business** involves the production of goods using raw materials, labor, machinery, and tools. These businesses convert raw materials or components into finished products, which are then sold either directly to customers or through distribution channels. Manufacturing businesses can produce consumer goods, industrial products, or components for other industries.

Trading Business : A **trading business** involves the buying and selling of goods without altering their form. It can operate as a wholesaler or retailer, acquiring products from manufacturers or other suppliers and selling them to end customers. Trading businesses serve as intermediaries in the distribution chain, bringing goods to market without manufacturing them.

Services Business : A **services business** provides intangible products, typically in the form of expertise, assistance, or labor, rather than physical goods. These businesses focus on offering value through the provision of services, such as consulting, education, healthcare, entertainment, and more.

Q. (11) What is green economy ? Explain its components.

Ans. : A **green economy** is an economic system that aims to promote sustainable development while reducing environmental risks and ecological scarcities. It focuses on achieving economic growth through environmentally responsible practices, ensuring that natural resources are used efficiently and responsibly to benefit both the economy and the environment. The goal of a green economy is to create wealth and improve human well-being without causing long-term damage to the planet.

Renewable Energy

Green buildings

Green Transport

Water management

Waste management

Answer any 3 out of the given 5 questions on Subject Specific Skills. (3 x 2 = 6)

Q.(12) Differentiate between hardware and Software. Give examples.
Ans. :
Summary Table:

Aspect	Hardware	Software
Definition	Physical components of a computer system	Programs that run on hardware to perform tasks
Nature	Physical, tangible	Non-physical, intangible
Function	Performs physical work, executes tasks	Provides instructions to hardware
Dependency	Needs software to function	Needs hardware to run
Examples	CPU, Monitor, Keyboard, Mouse, Printer	Windows, macOS, Word, Photoshop
Modifiability	Can be replaced, repaired, or upgraded	Can be updated, modified, or reinstalled
Longevity	Durable but may become outdated over time	Can quickly become outdated or obsolete
Cost	Higher cost, involves physical materials	Ranges from free to expensive, depends on features

Q.(13) What is the purpose of digital literacy ? What are some aspects of digital literacy related to online safety ?
Ans. : The ability to understand, evaluate and use information and Communication Technologies (ICTs) in a right and responsible manner is known as Digital Literacy. It allows a person to use various digital devices, software applications and online platforms. It also encompasses the skills to surf over the internet, research information, evaluate the credibility and reliability of online sources, and protection of personal information and privacy online. It will make you aware of issues like :
Cyberbyllying
Online safety
Digital footprints
Copyright
Intellectual property
Digital citizenship

Q.(14) How do you save a file ? Explain the difference between the two save commands.
Ans. :
Both the **Save** and **Save As** commands are used to save a document in a word processor or presentation software, but they serve different purposes. Here's an explanation of each:
1. Save **Command**
- **Purpose**: The **Save** command is used to **save the current document** with the **same name** and in the **same location** where it was last saved.
- **Functionality**: When you click **Save**, it updates the document with any recent changes and **overwrites** the previous version of the file. It doesn't ask you for a new name or location unless the document has not been saved before (i.e., it's a new document).

Example:
If you've made changes to a presentation and press **Save**, the file will be saved with the same name and location. It's a quick way to save progress without needing to specify details.
2. Save As **Command**
- **Purpose**: The **Save As** command is used to **create a copy** of the current document with a **new name** or in a **different location** or file format.
- **Functionality**: When you select **Save As**, the program prompts you to enter a new file name, choose a different location (folder), or select a different file format (e.g., PDF, PNG, DOCX). It allows you to keep the original file intact while saving a new version or copy.

Q.(15) Write and explain any four advantages of DBMS.
Ans. :

A **Database Management System (DBMS)** is software that facilitates the creation, management, and manipulation of databases. It provides a systematic and organized approach to storing and retrieving data while ensuring data integrity, security, and accessibility. Here are four key advantages of using a DBMS:

Advantages : Sharing of data, Data redundancy, Data inconsistency, Confidentiality, Highly securable

1. **Data Redundancy Control :** In traditional file-based systems, multiple copies of the same data are often stored in different files, which can lead to redundancy. This redundancy wastes storage space and makes data management more complex.
2. **Data Integrity and Accuracy :** Data integrity ensures that the data in the database is accurate, consistent, and reliable. In manual systems or traditional file-based systems, ensuring consistency can be difficult, especially with large volumes of data.
3. **Data Security** : Sensitive data requires protection from unauthorized access, modification, or deletion. In traditional file-based systems, ensuring data security can be difficult to manage.
4. **Improved Data Sharing and Accessibility :** Data stored in traditional files is often siloed, making it difficult for different users or applications to access and share the information easily.

Sharing of data : Different users can use the same database to access the data according to their needs.
Data redundancy : It means duplication of data. It avoids duplication of data and ensures that there is only one instance of certain data.
Data inconsistency : It helps to avoid data inconsistency. It means if a single database is used by multiple users then it also ensures that the same data is present for all the users.

Confidentiality : It can ensure different views for the different users of the database. This keeps the confidentiality of the data safe.

Q.(16) Write a short note on variables and naming convention for variables in Java.

Ans. : It is used to store and manipulate data. You cannot use a variable unless it is explicitly declared beforehand.

Variable naming Convention :
- Use meaningful and descriptive variable names
- Use CamelCase in defining variables.
- Avoid using single character names.
- Avoid using Java reserved words.
- Variable names must start with : a letter, underscore, dollar sign
- Variable names can include : letters, digits, underscore
- Java is case sensitive

Answer any 2 out of the given 3 questions on Subject Specific Skills. **(2 x 3 = 6)**

Q.(17) Explain different types of network topology with the help of diagram..

Ans. :

Summary of Network Topologies:

Topology	Description	Advantages	Disadvantages
Bus	All devices connected to a single backbone.	Simple, easy to install.	Performance degrades with more devices.
Star	Devices connected to a central hub/switch.	Easy to manage, add/remove devices.	Hub failure affects entire network.
Ring	Devices connected in a circular fashion.	Fast data transfer.	Failure in one device disrupts network.
Mesh	Every device connected to all other devices.	High redundancy, fault tolerance.	Expensive, complex setup.
Tree	Hybrid of bus and star, hierarchical.	Scalable, fault isolation.	Central backbone failure can disrupt network.
Hybrid	Combination of different topologies.	Flexible, scalable, optimized performance.	Complex, expensive to implement.

Each network topology has its own strengths and weaknesses. The choice of topology depends on factors like the size of the network, cost, scalability, reliability, and the specific needs of the organization. While **star** and **bus** topologies are simple and cost-effective, **mesh** topology offers better fault tolerance, and **tree** topology offers scalability.

Q.(18) Describe the following types of data that can be entered in a cell.

      (a) Labels or Text   (b) Number or Values   (c) Formula

Ans. :

Labels or Text : Labels or text data refers to non-numeric entries that are used for identification, description, or categorization purposes. These entries are typically used as headings, names, or other textual information.

- **Examples**:
    "John Doe" (name of a person)
    "January" (month name)

Numbers or Values : Numbers or values are the **numeric data** entered into a cell. These are typically used for **quantitative analysis** and can be used in mathematical calculations or functions. They can represent integers, decimals, percentages, or currency.

- **Examples**:
    42 (integer)
    3.14 (decimal number)

Formula : A formula is a special type of data that begins with an equal sign (=) and performs calculations or manipulations of other data within the spreadsheet. Formulas can use numbers, cell references, and built-in functions to compute results dynamically.

- **Examples**:
    =A1+B1

Q.(19) Describe the following : Primary key, Foreign key and Candidate key.
Ans. :

Primary Key : A **Primary Key** is a field (or a combination of fields) in a table that uniquely identifies each record (row) in that table. No two records in the table can have the same primary key value.

Foreign Key : A **Foreign Key** is a field (or a combination of fields) in a table that refers to the primary key in another table. It establishes and enforces a **link** between the data in the two tables, ensuring referential integrity.

Candidate Key : A **Candidate Key** is any field (or combination of fields) in a table that can uniquely identify a record. A table can have **multiple candidate keys**, but only one of them is selected to be the **primary key**. All candidate keys have the potential to be used as the primary key.

Answer any 3 out of the given 5 questions on Subject Specific Skills. **(3 x 4 = 12)**

Q.(20) What general procedures must you follow if any peripheral (I/O) device is not working ?
Ans. :

Step	Action
1. Check Physical Connections	Ensure cables and power connections are secure and undamaged.
2. Restart	Restart both the device and computer.
3. Check for Error Indicators	Look for error lights or messages on the device.
4. Check Settings	Ensure correct settings in OS and device configuration.

Step	Action
5. Test on Another Computer	Connect the device to another system to check if the issue persists.
6. Reinstall Drivers	Update or reinstall drivers for the device.
7. Check Software Conflicts	Look for conflicting software that may be interfering with the device.
8. Perform System Update	Make sure the OS is fully updated.
9. Use Troubleshooters/Diagnostics	Run system tools to identify and fix issues.
10. Check for Device Conflicts	Disconnect other peripherals that might be causing issues.
11. Seek Professional Help	If the issue persists, consider seeking expert help or replacing the device.

Q.(21) Explain any four Protective Measures while accessing internet.
Ans. :
1. **Use Strong and Unique Passwords**

- **Explanation**: A strong password is crucial for protecting your online accounts from unauthorized access. It should be unique and difficult to guess, combining uppercase and lowercase letters, numbers, and special characters. Avoid using easily guessable information like your name, birthdate, or common words.

2. **Enable Firewall and Antivirus Software**

- **Explanation**: A **firewall** acts as a barrier between your device and potential external threats, filtering incoming and outgoing traffic to block harmful content. **Antivirus software** helps detect and remove malicious software (malware) such as viruses, worms, and trojans that can infect your device.

3. **Avoid Clicking on Suspicious Links and Email Attachments**

- **Explanation**: Phishing attacks often trick users into clicking on links or downloading attachments that may look legitimate but actually contain malware or lead to fraudulent websites. These emails or messages may impersonate reputable sources, such as banks or online stores, to steal personal information.

4. **Use Secure and Trusted Websites (HTTPS)**

- **Explanation**: When browsing the internet or making online transactions, ensure that the websites you visit are secure. Look for **HTTPS** (HyperText Transfer Protocol Secure) in the

website's URL, which indicates that the site is using encryption to protect data during transmission.

Q.(22) What are the different view options in OpenOffice Impress ? Explain.
Ans. :

(i) Normal : It is used to show slides in normal mode where you are able to make corrections and edit the object or content. It is main view od creating slides.
(ii) Outline : It is used to view contains all the slides of the presentation along with their numbered sequence.
(iii) Slide Sorter :It is used to show all the slides in thumbnails form.
(iv) Slide Show : It is used to view the presentation on full screen.
(v) Notes view : It is used to add notes to the slide which are not visible to the audience.

Q.(23) Consider the following table : (Table Name : Employee)

Ecode	Name	Dept	DOB	Gender	Designation	Salary
101	Sunita	Sales	06-06-1995	F	Manager	25,000
102	Neeru	Office	05-07-1993	F	Cerk	12,000
103	Raju	Purchase	05-06-1994	M	Manager	26,000
104	Neha	Sales	08-08-1995	F	Accountant	18,000
105	Nishant	Office	08-10-1995	M	Clerk	10,000
106	Vinod	Purchase	12-12-1994	M	Clerk	10,000

Write the SQL command for the following statements :
(a) Display the entire table.
(b) Display those records having female employees.
(c) Display Name and Department of those employee who have salary more than 15,000.
(d) Display those records where employees have clerk designation.
Ans. :
(a) Select * from Employee;
(b) Select * from Employee where Gender = "F";
(c) Select Name, Dept from Employee where Salary>15,000;
(d) Select * from Employee where Designation = "Clerk";

Q.(24) Write the steps to create a new Form in Java.
Ans. :
1. **Import Required Packages** : First, you need to import the necessary classes from the javax.swing package to use Swing components (buttons, text fields, labels, etc.).
2. **Create a New Java Class :** Define a new class for the form. This class will extend JFrame, which is the basic container for Swing-based user interfaces.
3. Add Components to the Form : In the form's constructor, create and add the required components like **labels**, **text fields**, **buttons**, etc., to the form.
4. Set the Visibility of the Form : To make the form visible, you need to set the visibility of the form to true. You can do this inside the main method.

*********** ALL THE BEST ************