

CLASS-X
INFORMATION TECHNOLOGY (Subject Code:402)

Subjective Practice Paper-2

Answers

1. **Four characteristics of entrepreneurship are:**

- a. Entrepreneurship creates wealth for the self and society as the society develops with facilities and accomplishments by meeting the needs of citizens.
- b. Entrepreneurship is not only about self-employability but also about completion of life cycle of society.
- c. It accelerates the economic growth of the society as it enables wealth creation for the entrepreneur himself and the people who are employed in the enterprise.
- d. It also contributes to the finance sector on a national scale for the government in the form of taxation which is then redistributed in the society for different services of the nation.

2. Differences between LAN and WAN are:

LAN	WAN
LAN is a type of network in which computers (nodes) are connected in a local unit or small geographical area, such as offices, departments of an organization, etc.	WAN is a type of network in which computers are connected over large geographical area such as cities, states, countries or even the whole world.
In LAN, data transfer takes place at a rate of 100-1000 mbps.	The speed of data transfer is up to 150 mbps.

3. **DDL:** Create, Alter, Comment, Truncate, Rename, Drop,

DML: Select, Delete, Update, Insert Into,

DCL: Revoke, Grant,

TCL: Savepoint, Set Transaction, Commit, Rollback

4. Protocol refers to the set of rules which defines the standardized way of doing actions and formatting data so that two or more devices are able to communicate and understand each other.
 - **TCP/IP:** TCP (Transmission Control Protocol) and IP (Internet Protocol) are two different protocols/rules for governing the communication among computers connected to the Internet. The IP manages the movement of the packets over the Internet. It routes the data packet to its proper destination address. It also allows any computer to further forward these packets to another computer. TCP has to make sure that all packets reach their destinations in order/sequence and if some packets are missing they are resent.
 - **HTTPS:** HTTP (Hyper Text Transfer Protocol) is a protocol which is used for secure data transmissions between a web client and a web server. It is an extended version of HTTP as it has a SSL (Secured Socket Layer) certificate. It ensures the encryption of data while sending and decryption of data at the receiving end. It is less prone to hacking.

5. The three major problem areas related to sustainable development are:

- a. **Soil:** Use of land for different purposes has led to reduction of rich and fertile land needed to grow crops such as wheat, rice, etc. Use of chemical fertilisers degrades the quality of soil by depleting soil nutrients.
- b. **Water:** The rivers and ponds are getting polluted as people dump garbage into them. Thus, fresh water is not safe for drinking and other purposes.
- c. **Fuel:** We are using a lot of wood from trees as fuels and in construction. People living in such areas face extreme weather conditions, such as floods, extreme cold or heat.

6. In database, relationship of the tables may be between:

- a. **One-to-one relationship:** In this relationship both the tables must have Primary Key Columns. It occurs when there is exactly one record of TableA that corresponds to exactly one record with TableB.
- b. **One-to-many relationships:** In this relationship one of the tables must have a Primary Key column that will be associated with all the columns of related tables. It occurs when each record in TableA can have many linked records in TableB but each record in TableB may have only one corresponding record in TableA.
- c. **Many-to-many relationships:** In this relationship none of the associated tables have Primary Key column. It means that all the columns of Primary Key fields are associated with all the columns of related tables. It occurs when each record in TableA may have many linked records in TableB and vice-versa.

7. The 'World Wide Web' is a framework for accessing the documents that are spread over millions of computing devices over the Internet. Following are some of the features of WWW:
- User Friendly:** WWW resources are compatible and can be used easily with the help of web browsers.
 - Data Sharing:** Through WWW, users can send text files, spreadsheets, documents, presentations, audio files, video files, etc. to others.
 - Multimedia documents:** Multimedia documents are the information in the form of an audio, video, graphics, animations and text which are viewed in the web pages. WWW allows and supports the Internet users to create, link or display multimedia web pages.
8. a. INSERT INTO Item (ITEMNO, INAME, PRICE, QTY) VALUES (15, 'Pencil', 20, 10);
b. SELECT * FROM Item WHERE QTY > 10;
c. UPDATE Item SET ITEMNO = 25 WHERE ITEMNO = 13;
d. SELECT PRICE*QTY AS "Total Amount" FROM ITEM;
e. SELECT INAME FROM Item WHERE PRICE = 10;