**SUBJECT**: computer studies

**Class**: jss2

**Topic**: ICT GADGETS

**WEEK 3**

**ICT GADGETS ARE**:

(a) **GSM (Global System for Mobile Communication):**

GSM (Global System for Mobile Communications, originally Groupe Spécial Mobile) is a standard developed by the European Telecommunications Standards Institute (ETSI) to describe the protocols for second-generation digital cellular networks used by mobile devices and mobile telephones, first deployed in Finland in December 1991. As of 2014, it has become the global standard for mobile communications – with over 90% market share, operating in over 219 countries and territories.

b) **2G** networks developed as a replacement for first generation (1G) analog cellular networks, and the GSM standard originally described as a digital, circuit-switched network optimized for full duplex voice telephony. This expanded over time to include data communications, first by circuit-switched transport, then by packet data transport via GPRS (General Packet Radio Services) and EDGE (Enhanced Data rates for GSM Evolution, or EGPRS).

Subsequently, the 3GPP developed third-generation (3G) UMTS standards, followed by fourth-generation (4G) LTE Advanced standards, which do not form part of the ETSI GSM standard.



c) **Subscriber Identity Module (SIM):**

Subscriber Identity Module or Subscriber Identification Module (SIM) is an integrated circuit that is intended to securely store the international mobile subscriber identity (IMSI)

number and its related key, which are used to identify and authenticate subscribers on mobile telephony devices (such as mobile phones and computers).

One of the key features of GSM is the subscriber identity module (SIM), commonly known as a SIM card. The SIM is detachable smart card containing the user’s subscription information and phonebook. This allows the user to retain his or her information after

switching off the handsets. Alternatively, the user can also change operators while retaining the handset simply by changing the SIM, some operators will block this by allowing the phone to use only a single SIM or only a SIM issued by them; this practice is known as SIM locking, and is illegal in some countries. SIM cards are always used on GSM phones; for CDMA phones, they are only needed for newer LTE-capable handsets. SIM cards can also be used in satellite phones, computers, or cameras.



D) **Fax Machine:**

Fax (short for facsimile), sometimes called telecopying or telefax (the short form of telefacsimile), is the telephonic transmission of scanned printed material (both text and images), normally to a telephone number connected to a printer or other output device. The original document is scanned with a fax machine (or a telecopier), which processes the contents (text or images) as a single fixed graphic image, converting it into a bitmap, and then transmitting it through the telephone system in the form of audio-frequency tones.

The receiving fax machine interprets the tones and reconstructs the image, printing a paper copy.

Fax machines with additional electronic features can connect to computers; can be used to scan documents into a computer, and to print documents from the computer. Such high- end devices are called multifunction printers and cost more than fax machines.



e) **The Telephone:**

The telephone is a telecommunication device which is used to transmit and receive sound (most commonly voice and speech) across distance. Most telephones operate through transmission of electric signals over a complex telephone network which allows almost any phone user to communicate with almost any other. Thus, a telephone is an electronic tool. Using a telephone, two people who are in different places can talk.

Computer can use a machine called a modem to talk to other computers over a telephone line. This allows a computer to connect to other computer networks including the internet.



Early telephones needed to be connected with wires. Now telephone calls can be sent with radio. This is also called wireless. While the term “wireless” in this context means radio and can refer to any telephone that uses radio waves, it is primarily used for cellular mobile phones.

**The Differences among GSM, Fax Machine and Telephone**

**Differences**

**S/n GSM Fax Telephone**

It can be used for

Global system of mobile

1.

communication Facsimile transmission

sending text and

2. It is used for making calls

audio messages

It is used for scanning It cannot send and sending/receiving images

and sending text messages. and text documents images

3. Presence of a SIM card is essential

SIM card is not needed

(Uses telephone line)

SIM card is not needed

**Steps in Creating and Sending Messages Using GSM**

1. Using any handset irrespective of the network

2. Look for an icon that indicate message

3. Click on the icon

4. Sub menu pops up under it

5. Scroll down and look for icon label create a message

6. Click on create a message

7. Type the message and the phone number of the recipient

8. Click the given green button on the handset to send the message. Storing and Retrieving Information on a GSM

**To store information using GSM**

1. Type in the message

2. Click save

**To retrieve information using GSM**

1. Look for message icon

2. Click on it

3. Scroll down to look for saved items

4. Click on the icon

5. It pops up the information

**ASSIGNMENT**

1. Mention two uses of (a) GSM phone (b) Fax machine (c) Telephone.

2. Describe how a telephone works.