

Unit - 1 (INTRODUCTION TO ITeS INDUSTRY)

Chapter – 1: APPLICATION OF IT IN ITeS INDUSTRY

Answer the Following Questions

1. IT helps a business organisation by facilitating marketing, product browsing, shopping, and processing orders. Business communications through e-mail, video conferencing, and mobiles enable people to work from anywhere. E-commerce or online shopping allows buying or selling of products through the Internet.
2. Business Process Outsourcing (BPO) is a practice of outsourcing a part of a business to another organisation that is an expert in handling such kind of processes. Some of the BPO services are as follows:
 - a. Transaction and Payment Processing services
 - b. Document Management services
 - c. Order Management services
 - d. Accounts Management services
 - e. Technical Support services
3. Digital India and e-governance initiative of government have resulted in providing many government services online, such as document processing for driving licenses, collection of taxes, exchange of information with citizens, and other government departments. Some examples of the apps launched by government of India for digital empowerment of Indian citizens are Bharat Interface for Money (BHIM), Swachh Bharat Abhiyan, GST Rate Finder, UMANG, and MyGov.
4. WhatsApp, Facebook, Instagram and Twitter are some of the most popular social media services.

BRAIN DEVELOPER

SECTION 1: OBJECTIVE TYPE QUESTIONS-

(SOLVED) SECTION 2: THEORY QUESTIONS-

(SOLVED)

SECTION 3: APPLICATION BASED QUESTIONS-(SOLVED)

SECTION 4: APPLICATION BASED QUESTIONS-

(UNSOLVED)

1. WhatsApp
2. a) Banking b) Product services c) Bill payment
3. Electrocardiogram (ECG) Machine, Cardiac Screening Machine

SECTION 5: SHORT ANSWER TYPE QUESTIONS-(UNSOLVED)

1. The services enabled by the use of Information Technology can be termed as ITeS. These services improve the efficiency of an organisation and help in reducing cost.
2. The companies within the IT-BPM industry are classified on the basis of the following parameters:

- a. The area to which the company is serving
- b. The type of services the company is providing
- c. The geographical reach of the company
- d. Scope of operations and profit earned by the company

Service	Example
Online Banking	Transferring money between accounts using IMPS, RTGS, and NEFT
E-learning	Accessing educational videos through YouTube
Library management	Recording book issuance and collection information
Hospital management system	Managing Computerised appointments with doctors

3. A Learning Management System (LMS) is a software application or Web based technology used to plan, implement, and assess a specific learning process.
4. Some of the ways we use IT in our everyday lives are:
 - a. Paying bills online
 - b. Reading online newspapers
 - c. Playing games on smartphones and PCs
 - d. Using e-mail, social media, video calling, etc.
 - e. Booking hotel, railway, flight or movie tickets
 - f. Online shopping

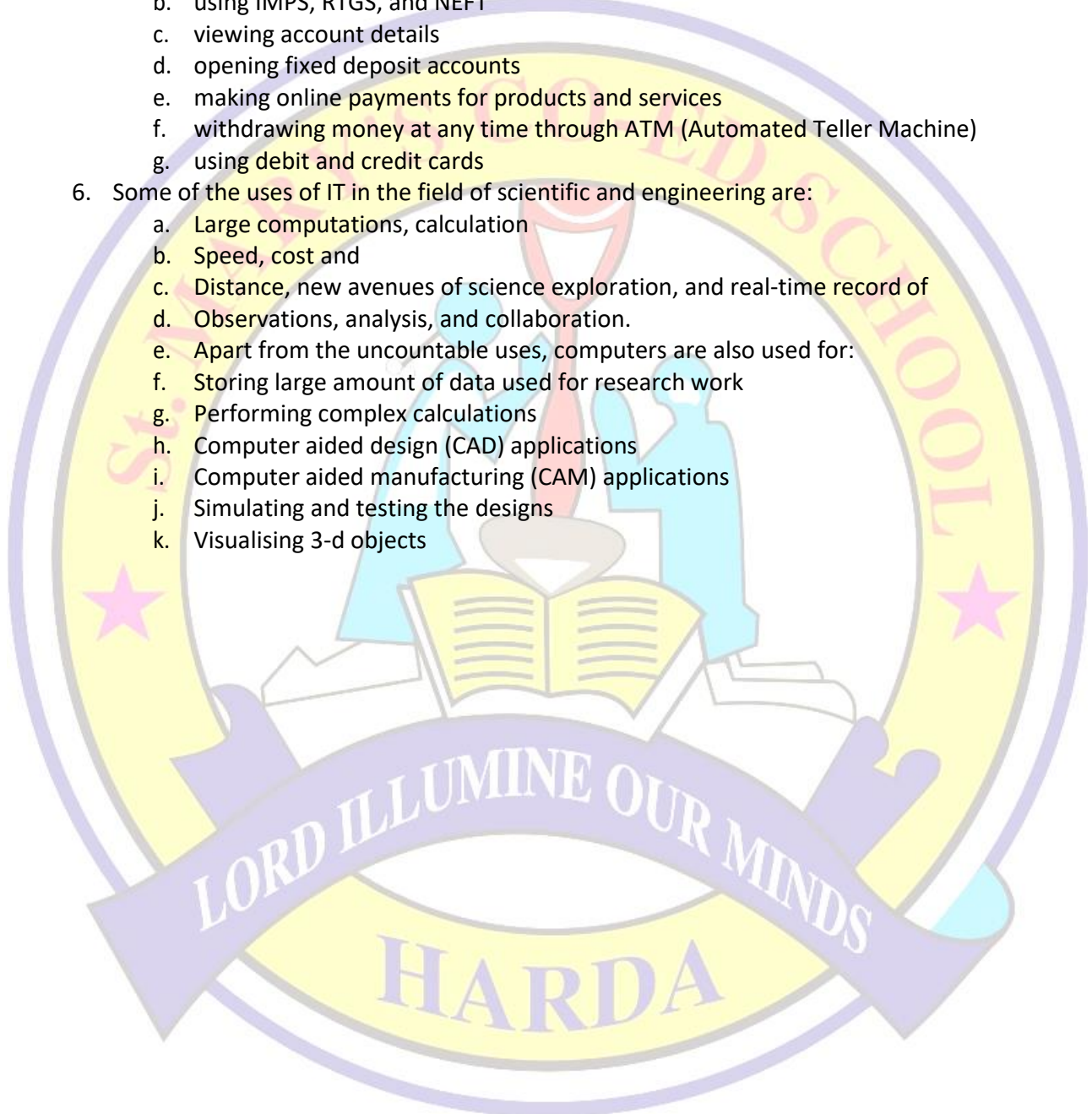
SECTION 6: LONG ANSWER TYPE QUESTIONS-(UNSOLVED)

1. A typical call centre functions as follows:
 - a. A customer uses a contact number (usually a toll-free number) that is connected to a customer support centre.
 - b. When a call reaches the call centre, a trained customer service representative answers the customer.
 - c. To make sure that the highest standards of customer service are delivered, the IT experts create the technology to support the call centre.
 - d. With the increase in world-wide connectivity, it makes no difference whether the call centre is located in the local city of the customer or anywhere else in the world.
2. For each ITeS service, there are two things required:
 - a. Technology that enables the service
 - b. A communication device

The combination of the correct technology and communication channel results into very high degrees of improvement in the service quality.
3. Some of the factors stating the benefits of IT in the insurance sector are:
 - a. Recording the dates of starting, maturity and next instalment of policies
 - b. Calculating interest dues and bonus
 - c. Keeping records of survival benefits
4. E-commerce or online shopping allows us to search and compare various products and

services, which we can buy at competitive prices. The products are delivered right at our doorstep, thus saving time and money. E-commerce offers a range of products from home appliances to apparels, toys, and electronic goods.

5. E-banking facilitates us for
 - a. transferring money between accounts
 - b. using IMPS, RTGS, and NEFT
 - c. viewing account details
 - d. opening fixed deposit accounts
 - e. making online payments for products and services
 - f. withdrawing money at any time through ATM (Automated Teller Machine)
 - g. using debit and credit cards
6. Some of the uses of IT in the field of scientific and engineering are:
 - a. Large computations, calculation
 - b. Speed, cost and
 - c. Distance, new avenues of science exploration, and real-time record of
 - d. Observations, analysis, and collaboration.
 - e. Apart from the uncountable uses, computers are also used for:
 - f. Storing large amount of data used for research work
 - g. Performing complex calculations
 - h. Computer aided design (CAD) applications
 - i. Computer aided manufacturing (CAM) applications
 - j. Simulating and testing the designs
 - k. Visualising 3-d objects



Unit - 2 (DATA ENTRY AND KEYBOARDING SKILLS)

Chapter – 2: USING DATA ENTRY TOOLS

Answer the Following Questions:

1. The home row keys for your left hand are **A, S, D,** and **F** and your right hand are **J, K, L,** and; (semicolon).
2. While typing, it is important for the user to maintain the correct posture as the ideal typing posture minimises both static and dynamic muscle loads. Correct position of the body helps to make you avoid health complications.
3. A pointing device is an input device used to point at an object on the computer screen. You can point, select, open, and even drag an item on the screen. The pointing devices are also used to draw and play games on the computer.
4. **Mechanical Mouse:** The mechanical mouse has a rolling rubber ball under the case of the mouse. The movement of the pointer is controlled by the ball.
Optical Mouse: The optical mouse uses laser to control the movement of the pointer. It does not have a ball. You can see the light by tilting the mouse.

Chapter – 3: USING TYPING SOFTWARE

Answer the Following Questions:

1. Touch typing is a wonderful technique which provides a variety of customized exercises that help you to improve your professional keyboard skills in a step-by-step way. Two benefits of touch typing are:
 - a. **Speed:** One of the most attractive reasons to learn the touch typing skill is the significant increase in speed and efficiency.
 - b. **Accuracy:** The second most important benefit of learning touch typing comes with typing correctly and with accuracy. If you are typing with good speed but are not typing accurately, no one would understand what you are trying to convey.
2. Computer ergonomics provide the logistic support for efficient and effective computer usage. They work to alleviate the following conditions that can result from spending a lot of time on the computer. Some of the factors include:
 - a. Sitting posture
 - b. Positioning of hands
 - c. Monitor placement
 - d. Mouse and keyboard placement
 - e. Chair and table placement
3. Gross speed is a calculation of exactly how fast you type with no error penalties. The Gross typing speed is calculated by taking all words typed and dividing it by the time it took to type the words.

$$\text{WPM} = (\text{Words without errors} + \text{Words with errors}) / \text{Time spent in minutes}$$

Net speed is a calculation of exactly how fast you can type error-free. It is arguably the most useful tool in gauging typing abilities.

$$\text{Net WPM} = \text{WPM} - (\text{words with errors} / \text{Time spent in minutes})$$

4. Accuracy in typing means that you type the words accurately and correctly. Typing accuracy is

defined as the percentage of correct entries out of the total entries typed. So, if you typed 90 out of 100 characters correctly, you typed with 90% accuracy.

Accuracy % = $100\% - ((\text{words with errors} \times 100\%) / \text{Total number of words})$ Example, A person typed 50 words per 2 mins. with errors in 6 words.

Accuracy = $100 - ((6 * 100) / 50) = 88\%$

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1. Rapid Typing.
2. Each time you complete a lesson, the **Results** window displays your achievements. The Results window is divided into two parts: **Rating Pane** and Three tabs: **Next step**, **Detailed statistics**, and **Errors overview**. It tracks your progress, and allows you to evaluate your own performance at any time.
3. $\text{WPM} = (\text{Words without errors} + \text{Words with errors}) / \text{Time spent in minutes}$
 - a. $\text{CPM} = (\text{Characters without errors} + \text{Characters with errors}) / \text{Time spent in minutes}$
 - b. $\text{KPM} = (\text{Keystrokes without errors} + \text{Keystrokes with errors}) / \text{Time spent in minutes}$
 - c. $\text{WPS} = (\text{Words without errors} + \text{Words with errors}) / \text{Time spent in seconds}$
 - d. $\text{CPS} = (\text{Characters without errors} + \text{Characters with errors}) / \text{Time spent in seconds}$
 - e. $\text{KPS} = (\text{Keystrokes without errors} + \text{Keystrokes with errors}) / \text{Time spent in seconds}$
4. We can add a course in Rapid Typing software through the following steps:
 - a. Select the **Lesson editor** option present on **Title** bar or Press **(Ctrl+3)**.
 - b. Click on the **Course menu** button located on the Toolbar. A dropdown menu will appear.
 - c. Now, select the **Create new course** option. You will notice that a new course has been added in the **Navigation Tree**.
5. Type a name and title of your course and press **Enter**. The status bar displays the progress.
6. Gross Speed: $80/4 = 20 \text{ WPM}$
Net Speed: $20 - (12/4) = 20 - 3 = 17 \text{ WPM}$
Accuracy: $100\% - (12 * 100\%) / 80 = 100\% - 15\% = 85\%$

SECTION 5: SHORT ANSWER TYPE QUESTIONS-(UNSOLVED)

1. The home row keys for your left hand are **A, S, D**, and **F** and your right hand are **J, K, I**, and **;** (semicolon).
2. To delete a letter:
 - Place the cursor just after the letter.
 - Press the Backspace key once.
 - Alternatively, place the cursor just before the letter and press the Delete key.

- For deleting a word or sentence, select the text and press the Delete or Backspace key.

3. Four common mouse actions are:

- Click or left-click: It is used to select an item. Place the mouse pointer on the item to be elected, then press the left mouse button once with your index finger. The desired item gets selected.
- Double-click: It is used to start a program, open a file, or trigger an action. You have to click the left mouse button twice quickly.
- Right-click: It is used to display the Context menu or properties. Move the mouse pointer to the desired position and press the right button of the mouse. The Context menu will open.
- Drag and Drop: It allows you to select and move an item from one location to another. Position the mouse on an object, hold down the left mouse button of the mouse, and drag the object to the position where you want to place it and release the button. You can see the item at a new location.

4. Combination keys are used in combination with other keys to perform an action. Ctrl, Alt, and Shift are known as combination keys.

5. 1) Always remember to keep your back straight.

2) Keep your elbows bent at the right angle.

6. $\text{Error \%} = (\text{words with errors} * 100\%) / \text{Total number of words}$

7. Rapid Typing

8. 1) Microsoft Windows 2) Linux 3) Mac 4) Ubuntu

9. To open the New Lesson dialog box:

- Click on the Lesson menu option from RapidTyping Toolbar.
- Now select the course level in which you want to add a new lesson.
- In the next step, you can either choose Create new lesson option from the Lesson menu or right-click on any course level and select the Create new lesson option from the pop up menu that appears

10. The lesson statistics table shows the following details:

- Overall rating
- Speed in CPM
- Accuracy characters
- Slowdown characters
- Done percentage
- Total time spent in seconds
- Words typed
- Words fixed

SECTION 6: LONG ANSWER TYPE QUESTIONS-(UNSOLVED)

1. Accuracy in typing means that you type the words accurately and correctly. Typing accuracy is defined as the percentage of correct entries out of the total entries typed. So, if you typed 90 out of 100 characters correctly, you typed with 90% accuracy.

Accuracy % = $100\% - ((\text{words with errors} \times 100\%) / \text{Total number of words})$ Example, A person typed 50 words per 2 mins. with errors in 6 words.

$$\text{Accuracy} = 100 - ((6 * 100) / 50) = 88\%$$

2. **Gross speed** is a calculation of exactly how fast you type with no error penalties. The Gross typing speed is calculated by taking all words typed and dividing it by the time it took to type the words.

$$\text{WPM} = (\text{Words without errors} + \text{Words with errors}) / \text{Time spent in minutes}$$

Net speed is a calculation of exactly how fast you can type error-free. It is arguably the most useful tool in gauging typing abilities.

$$\text{Net WPM} = \text{WPM} - (\text{words with errors} / \text{Time spent in minutes})$$

3. Typing rhythm shows whether the keystrokes are coming at equal intervals. This methodology correlates the manner and rhythm in which an individual presses and releases keys on a keyboard.
4. The detailed statistics screen shows the following:
- **Statistics Toolbar:** Statistics toolbar has buttons for choosing courses, removing the selected statistics, and customizing the statistics display options.
 - **Course Diagram/Statistics:** It shows the common statistics for all lessons of the current course.
 - **Lesson Diagrams/Statistics:** It shows the statistics for each character or keystroke of the selected lesson in the course diagram.
 - **Lesson Statistics Table:** It shows the full statistics of the selected lesson in the course diagram.
5. Touch typing is a method of typing without the use of the sense of sight, or simply by feeling the keyboard. However, the sense of touch is a little involved since this typing method utilizes muscle memory through rigorous training. This way, a user can type spontaneously by placing his or her hands on the keyboard and does not have to look at any of the keys.

BENEFITS OF TOUCH TYPING

Touch typing is a wonderful technique which provides a variety of customized exercises that help you to improve your professional keyboard skills in a step-by-step way. Some of them are listed below:

- **Speed:** One of the most attractive reasons to learn the touch typing skill is the significant increase in speed and efficiency. Touch typing is certain to offer the most productive method for working on the wide-ranging data-entry projects.
 - **Accuracy:** The second most important benefit of learning touch typing comes with typing correctly and with accuracy. If you are typing with good speed but are not typing accurately, no one would understand what you are trying to convey.
 - **Time:** Another benefit of touch typing is accomplishing the work within a given time frame. The more the typing speed is, the less will be the time taken to type and accomplish the task.
 - **Focus:** When you type with two fingers, the focus gets diverted between finding the keys on the keyboard and the work you are doing on the computer system. Learning touch typing allows you to focus on one thing instead of two and thus increases the productivity.
6. System requirements for installing touch typing software are:
- Hardware:** A computer system with physical keyboard, mouse, and speakers.

Operating System Software: Windows XP, Windows 7, Windows 8, or Windows 10, Linux, Mac, Ubuntu.

7. To insert a New Lesson:

- Click on the Lesson menu option from RapidTyping Toolbar.
- Now select the course level in which you want to add a new lesson.
- In the next step, you can either choose Create new lesson option from the Lesson menu or right-click on any course level and select the Create new lesson option from the pop up menu that appears
- The New Lesson dialog box appears.

8. The Detailed statistics screen shows the lesson statistics, which displays the details like typing speed, errors, and slowdown for each character/keystroke. In the text area, you can check the mistakes you made, in different colours. The colour indication is as follows:

- a. The green dashed line, shown above depicts the good result.
- b. The bad result is depicted in red colour and yellow colour depicts the time frame which was exceeded by the user.
- c. The orange colour depicts the incorrect character and time for typing a character which has been exceeded by the user.

9. Introduction and Beginner courses are available I Rapid Typing software.

10. The following commands are shown in the interface of the lesson editor:

- a. Course Selection
- b. Lesson Selection
- c. Pause Button
- d. Current Lesson Speed
- e. Current Lesson Accuracy
- f. Current Lesson Time
- g. Restart The Lesson

