



# HOLY FAITH PRESENTATION SCHOOL

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Contact No.: 0194-3565276

Winter Assignment

(Class – 7th)

Subject: Computer

FA-1

## Chapter No. 1

## Number System

- Number system
- Hexadecimal, decimal, binary and octal number system
- Number conversions
- Binary arithmetic

### INPUT/OUTPUT (Page No. 9-10)

#### A. Take the correct option. (Book Work)

1. Which of the following number system is used to represent #FF5722?

C. Hexadecimal

2. \_\_\_\_\_ number system is used to give instructions to a computer.

C. Binary

3. A number system can be identified by \_\_\_\_\_.

D. Both a and c

4. Which number system contains digits ranging from 0 to 7?

B. Octal

5. In binary multiplication,  $1 \times 1$  is \_\_\_\_\_.

C. 1

#### B. Fill in the blanks. (Book Work)

1. Number system is used to represent numbers.

2. The Hexadecimal number system contains 16 digits consisting of numbers as well as letters.

3. The Binary number system contains two digits: 0 and 1.

4. In binary arithmetic  $1+1$  is 1 0

5. The Decimal number system is the most widely used number system.

#### C. State true or false. (Book Work)

1. You cannot perform calculations using binary numbers. **(False)**

2. 0 represents ON state and one represents OFF state. **(False)**

3. Hexadecimal number system contains digits ranging from 0 to 16. **(True)**

4. Face value refers to the position of the digit in a number. **(False)**

5. In binary number system if you multiply 1 by 1 the output is 0. **(False)**



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## D. Fill the missing information in the table. (Book Work)

Binary-0, 1; Well-suited for digital systems, as electronic devices, particularly computers.

Decimal-0-9

Hexadecimal- 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, and F- This system is used to display system error messages and represent colours in website development.

## E. Answer the following questions. (Write these questions on notebook). (Page No. 10)

### 1. Define the number system.

**Ans:** A number system is a mathematical notation for representing numbers. It consists of a set of digits, a base or radix (which defines the number of digits used), and rules for combining these digits to represent numbers.

### 2. What is the purpose of the base in a number system?

**Ans:** The purpose of the base is to define the counting scheme and positional value of digits in a number.

### 3. What is computer arithmetic?

**Ans:** Computer arithmetic refers to the set of operations and methods used for performing arithmetic calculations in computers. It involves techniques for addition, subtraction, multiplication, division, and other mathematical operations on binary numbers.

### 4. Define positional value of a number?

**Ans:** The positional value of a digit in a number is determined by its location or position within the number. It depends on the base or radix of the number system.

### 5. Write any two uses of the hexadecimal number system.

**Ans:** Hexadecimal number system is used to display system error messages and represent colours in website development.

### 6. Write one difference between hexadecimal and octal number systems.

**Ans:** Hexadecimal (base-16): Uses 16 digits (0-9, A-F). Octal (base-8): Uses 8 digits (0-7).

### 7. What is a binary number system? What is the use of this number system?

**Ans:** The binary number system is a base-2 numeral system that uses only two digits, 0 and 1. It is fundamental in computing and digital electronics. In binary, each digit represents a



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power of 2, and the system is used to represent and process information in computers, where data is stored and manipulated in binary form.

**8. What are the criteria used to determine the place value of each digit in a number?**

Ans: The rightmost digit has a place value of  $b^0$  (where  $b$  is the base). Moving to the left, each digit's place value increases by powers of the base.

**9. Convert the following numbers into their specified equivalents.**

a.  $(110101)_2 = (58)_{10}$

**b. Convert  $(100)_{10}$  into its binary equivalent.**

Ans: 1100100

**c.  $(538)_{16} = (?)_{10}$**

Ans: 1336



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FA-2

## Chapter No. 2

## App Development ....13

- Definition of app
- Downloading and installing an app
- Different types of apps
- Developing and app through MIT app inventor
- Categories of mobile apps

### ANSWER KEY

#### Let's BROWSE-1 (Page No. 14) (Book work)

Canva is both web-based as well as mobile app.

#### Let's BROWSE-3 (Book work)

Zomato, MakeMyTrip

#### INPUT/OUTPUT (Page No. 25-26)

##### A. Tick the correct option.(Book Work)

##### 1. Who developed the Android OS?

C. Google

##### 2. Canva belongs to which category of apps?

D. All of the options

##### 3. Which component contains all the built in blocks?

C. Blocks pane

##### 4. In which category does the calculator on a mobile phone fall under?

D. Utility

##### 5. Which type of app allows users to buy and sell products or services online?

D. E-Commerce app

##### B. Fill in the blanks. (Book work)

1. Apps are software developer for handheld devices



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2. Apps for ipad can be downloaded from Apple App store
3. MIT stands for Massachusetts Institute of Technology
4. Palette Pane is a collection of various buttons images and other functions
5. There are two main views in MIT app inventor: Design view and Blocks editor view

## C. State true or false (Book work)

1. You can run Android app on iOS devices. **(False)**
2. Fitness apps or categorized as productivity apps. **(False)**
3. Facebook social media app. **(True)**
4. Design view allows users to drag blocks. **(false)**
5. Social media apps are primarily used for communication between individuals in real time. **(True)**

## D. Answer the following questions. (Write these questions on notebook)

### 1. Define apps.

Ans: Apps, short for applications, are software programs designed to perform specific functions or tasks on electronic devices such as smartphones, tablets, or computers. Apps can range from productivity tools and games to utilities and social networking platforms.

### 2. What is the use of app inventor?

Ans: App Inventor is a visual development environment that allows users to create mobile applications for Android devices without extensive programming knowledge.

### 3. Name any two web-based Apps?

Ans: Google Docs, Trello (Suggestive Answers)

### 4. What is the significance of productivity apps?

Ans: Productivity apps are significant because they enhance efficiency and organization. They help users manage tasks, schedule events, collaborate on projects, and streamline work processes, leading to increased productivity and time management.

### 5. Write the names of two E-Commerce applications?

Ans: Amazon, eBay



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## 6. Explain the different types of apps with examples.

Ans: a. Social Media Apps: Example - Facebook, Instagram.

b. Entertainment Apps: Example - Netflix, Spotify.

c. Productivity Apps: Example - Microsoft Office Suite, Todoist.

d. Gaming Apps: Example - Candy Crush, PUBG.

e. Utility Apps: Example - Flashlight, Calculator.

## 7. What are the components of the MIT app inventor interface? Explain in brief.

Ans: a. Palette: Contains various components that can be dragged into the Viewer.

b. Viewer: Displays the app's user interface as it will appear on the device.

c. Blocks Editor: Allows users to program the app's behavior using visual blocks.

## 8. What is the significance of block editor?

Ans: Block Editor is significant as it provides a visual programming interface using blocks that represent actions, events, and functions. It simplifies coding for users who may not have traditional programming skills.

## 9. Explain the purpose of the design view in app inventor?

Ans: Design View allows users to visually design the user interface of their app. It involves placing components on the screen and arranging them to create the desired layout and appearance.

## 10. Write three things that you should keep in your mind while designing an app?

Ans: a. User Experience (UX): Prioritize a user-friendly and intuitive interface.

b. Functionality: Ensure the app serves its intended purpose effectively.

c. Performance: Optimize