1. Number System

Take Off (Page no. 11)

Do it yourself

Double Tap (Page no. 15)

1. $(1000.10)_2$

   $= 1 * 2_3 + 0 * 2_2 + 0 * 2_1 + 0 * 20 + 1 * 2\text{-}1 + 0 * 2\text{-}2$

   $= 1 * 8 + 0 + 0 + 1 * 0.5 + 0$

   $= (8.5)_{10}$

2.
2	30	
2	15	−0
2	7	−1
2	3	−1
	1	−1

   $(30)_{10} = (11110)_2$

Choose the correct option.

1. a. 2. a. 3. b. 4. a. 5. b.

Tick (✓) the correct statements and cross (✗) the wrong ones.

1. [This question was printed incorrectly in the book. Please correct it in your textbook]

   Question: A number system is a collection of numbers used to describe various quantities.

   Ans. ✓

2. ✗ 3. ✓ 4. ✓ 5. ✓

Answer the following questions:

1. The octal number system consists of eight digits from 0 to 7. Hence, the base of octal number system is 8.

2. 4 bits

3. The total number of digits used in a number system is called its Base.

4. A Number System is simply a method of counting. There are many number systems in existence. Consider a clock. Clocks have 24 hours, each hour composed of 60 minutes. Each minute is in turn composed of 60 seconds. When you learnt to count, you used the numbers, like 1, 2, 3, etc. Similarly, computers also have their own number system, known as the binary number system.

5. To convert a decimal number into a binary number, follow these steps:

   Divide the decimal number by 2 (the base of the binary number system).

   Note down the quotient and the remainder.

   Divide the quotient obtained again by 2 and note down the resulting quotient and remainder.

   Repeat the procedure till you reach a quotient less than 2.

   List the last quotient and all the remainders (moving from bottom to top). You will get your binary number.

Scratch Your Brain.

1.   a. $(21)_{10}$ b. $(123)_{10}$
        c. $(101101001)_2$ d. $(110)_2$
        e. $(5)_{10}$ f. $(301)_{10}$
        g. $(12)_{10}$ h. $(10100101)_2$
        i. $(81)_{10}$ j. $(106)_{10}$

2.   Do it yourself.

3.   Competency-based/Application-based questions:

        a. $(256)_8$ Octal Number System
          $(2AF)_{16}$ Hexadecimal Number System
        b. Hexadecimal Number System

2. Advanced Features of Excel

Take Off (Page no. 20)

1. F   2. T   3. T   4. F

Double Tap (Page no. 23)

1. ✓ 2. ✗ 3. ✗ 4. ✓

Choose the correct option.

1. a. 2. b. 3. b. 4. b. 5. b.

Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✗ 2. ✗ 3. ✗ 4. ✓ 5. ✗

Fill in the blanks with the correct words.

1. Insert 2. Cell Styles 3. Select All 4. Merge & Center

Answer the following questions:

1. Sorting of data means to organise the data in ascending or descending order.
2. The filters once applied can be easily removed. Click anywhere in the worksheet and repeat steps to apply filters. You will notice that the filter arrows in front of column headers disappear and the hidden rows also reappear.
3. Sorting of data means to organise the data in ascending or descending order, whereas Filter is used to separate unwanted material from a mixture.
4. To apply conditional formatting to a series of data, follow these steps:
   Step 1: Select the data and click on the Conditional Formatting command.
   Step 2: Select the desired conditional formatting.
   Step 3: Now select the desired option to apply on the selected cell range.

Scratch Your Brain.

1. a. Editing Group
   b. Filtering Data
   c. Sorting
   d. Conditional Formatting
   e. Sort Smallest to Largest
2. Do it yourself.

3. <mark>Competency-based/Application-based questions:</mark>
   a. Sort A to Z
   b. Sort A to Z
   c. Filter Data

Periodic Assessment 1

(Based on chapters 1 & 2)

A. Rewrite the incorrect statements.

1. The right-most digit of the number is called LSD.

2. Hexadecimal number system consists of 16 digits from 0–9 and A to F.

3. [This question was printed incorrectly in the book. Please correct it in your textbook]

Question: Sorting data means to organise the data in ascending order only.

Ans. Sorting data means to organise the data in ascending or descending order.

B. Circle the odd one out.

1. Decimal   Octal   (Scientific)   Binary

2. (Int)   Bit   Nibble   Byte

C. Match the following:

1. c.   2. e.   3. b.   4. a.   5. d.

D. Define the following:

1. Sorting of data means to organise the data in ascending or descending order. Excel allows you to sort both numeric and textual data. You can sort the data according to a particular column as well as a range of data.

2. Filtering process is used to separate unwanted material from a mixture. Excel also allows you to filter unwanted data from a set of data.

3. A Number System is simply a method of counting. There are many number systems in existence. Consider a clock. Clocks have 24 hours, each hour composed of 60 minutes. Each minute is in turn composed of 60 seconds. When you learnt to count, you used the numbers, like 1, 2, 3, etc. Similarly, computers also have their own number system, known as the binary number system.

3. Layers in Krita

Do it yourself.

Double Tap

1. d.   2. c.   3. b.   4. a.

Choose the correct option.

1. a.   2. b.   3. d.

Tick (✓) the correct statements and cross (✗) the wrong ones.

1. ✓   2. ✗   3. ✓

Answer the following questions:

1. Layers are transparent sheets containing objects which are stacked on top of each other so that the individual properties of an object are preserved. The layers help to edit an object without affecting the other objects.

2. Layers are useful in Krita as the layers help edit an object without affecting other objects.

3. To use the multiple Layers in a file , follow the given steps:

   Step 1: Insert an image into the file as a new layer.

   Step 2: click on the SVG Text Tool and add some text anywhere over the image.

   New object can be added as separate layers without affecting the properties of the objects in the other layer.

Scratch Your Brain.

1.

Add Layer	Duplicate Layer	Delete Layer	Close eye Shaped Icon	Open eye Shaped Icon

2.

   a. She can add text on another layer and hide or unhide the text using open eye shape icon.
   b. She can delete layer button to removing that layer.