CLASS X : REVISION GUIDELINES,
(Ref.: *Sumita Arora* Book, 2011 Edition (Reprint)) - KP

Note: 1. It is not necessary that the programs you write should exactly match those present in the book. 2. It is not necessary to use DataInputStream as used in examples in the book.

Chapter 1: Concept of objects

1. Learn the keywords on Page 9.

Chapter 2: Introducing Classes

1. Learn the keywords on Page 17.

Chapter 3: Introduction to Java in the BlueJ Environment

1. Learn the keywords on Page 45.

Chapter 4: Class as the basis of all computation

1. Learn the keywords on Page 115.
Q1. What are tokens? Give its types?
Q2. Give the primitive data types in Java with their size and ranges.
Q3. What are the two types of conversions? What is the hierarchy of data types?
Q4. What is type casting? Show an example.
Q5. Show the difference between post and prefixing the increment or the decrement operator.
Q6. Differentiate between logical and relational operators.
Q7. Which is the ternary operator? Show an example.
Q8. List the Mathematical functions with an example each. (Pg. 87, Table 4.18)
Q9. Pg 116 Q23 to Pg 117 Q32.

Chapter 5: Functions

Q1.Define – (i) Function (ii) Prototype (iii) Signature.
Q2. What are pure and impure functions?
Q3. Explain call by value and reference with examples.
Q4. What is function overloading?
Q5. Write overloaded functions to find the area of a square and a rectangle.
Q6. Write the prototypes and definitions for functions to (i) Check if a number is even/odd (ii) Return the factorial of a number.

Chapter 6: Constructors

Q1. What is a constructor? How is it created? What is its purpose? When is it called?
Q2. Name the main types of constructors. Show them using an example.
Q3. What is constructor overloading?
Q4. Give some properties of a constructor.

Chapter 7: Class as a user defined data type.

Learn Keywords on Pg 215.
Q1. Differentiate between Private and Public access specifier?
Q2. Give the format of an Object oriented program with an example.

Chapter 8: Using Library Classes

1. List all the string functions. State their use with an example. (Learn the String functions on page 235 with an example each.)
2. Learn the String Buffer functions (names) on page 241.
3. Page 250 - Q11, 12, 13. Page 251 Q2 to 5 (prepare an example too), Page 252 Q8 to Page 253 Q.14.

String Programs
Q1. Write a program to count the number of vowels and digits in a string.
Q2. Input a name and display its initials.
Q3. Input a word and display if it is a palindrome or not.
Q4. Input a sentence and display it in reverse.
Q5. Input a sentence and replace all the occurrences of "*January*" with "*August*".
Q6. Input a string and display its characters by reversing their case.

Chapter 9: Decision making statements

Q1. Explain the syntax and working, with an example of the following statements (i) If (ii) Switch
Q2. Explain the use of the following in switch (i) break (ii) default
Q3. Differentiate between switch and if-else (Page 283)
Q1. Page 278, Program 9.6, page 279 Program 9.7.
Q2. Page 295 onwards – Program 1(discount), 2(area), 15(Leap)
Q3. Input a number and display if it is even or odd.
Q4. Input 2 numbers and the user's choice to add, sub or multiply. Perform the selected operation using switch.
Q5. Ask the user using a menu if he wishes to display the digits (0-9) of the uppercase alphabets (A-Z). Perform the selected operation using switch.

Chap 10. Iteration through Loops

Q1. Differentiate between break and continue statements with an example.
Q2. Differentiate between while and do-while loops with an example.
Q1. Page 340 onwards, Program 1 Palindrome, 2 divisors, 4, series, 5 table, 6 Fibonacci, 8 series, 9 sum, 10 string, 11 series, 17 pattern, 18 pattern, 19 armstrong, 20 Mersenne, 23 type of number, 24 primorial, 27 lcm/hcf,
Q2. Input a number and display its factorial.
Q3. Input a number and display if it is prime or not.
Q4. Input a number and display if it is perfect or not.
Q5. Display eight terms of the series 1, 11, 111, 1111... .
Q6. Write a program to sum $a+a^2+a^3...+a^n$.
Q7. Write a program to sum $^1/_2+^2/_3+^3/_4...^9/_{10}$.

Chapter 11: Encapsulation

1. Learn keywords on Pg 382

Chap 12. Arrays

1. Page 423 onwards, Problem 4 to 9.
2. Page 425 onwards, Program 1, 6, 7, 8, 9, 10 11, 12, 13 and 14.
3. Do the 4 searching and sorting programs.
Q1. What is a single and a double dim array? How is it created/initialized and printed?
Q2. How much memory does will an array short a[]=new short[25] occupy?

Chap 13. Miscellaneous programs

Q1. Write an object oriented program to calculate the area of a rectangle.
Q2. Write an object oriented program to calculate the pay of an employee.
Give a look to the programs and solutions present in this chapter.

Other

Q1. Write a short note on Inheritance

END