

*U hv missed the 5000/- discount opportunity !!*

*Don't miss the next one.*

*Join Data Structure & Java Intergrated Course*

*(OOPM+Project Internship+OCJP)*

*by 15<sup>th</sup> June & get discount of 3500/-*

*Watch Webinar: <https://youtu.be/Xc-So-UBLkw>*

*Java Vacation batch starting on 13<sup>th</sup> June.*

*Vacation batch students can sit in regular batch again for free.*

## **Frequently Asked Questions**

### **DISCLAIMER:**

Please do not misunderstand that you should study only those questions which are stated below. Ideally, study everything at least once and the questions given below at least twice.

### **Programs:**

1. Find roots of Quadratic equation.
2. Find Reverse of number.
3. Check whether a given number is an Armstrong number.
4. Find factorial of a given number. (using for loop)
5. Print first n terms of Fibonacci series. (using for loop)
6. Pattern Problems
7. Find factorial of a number (using non recursive function).
8. Find factorial of a number (using recursive function).
9. Menu driven calculator program.
10. Find nth term of Fibonacci series (using recursive function)
11. Find  $x^y$  (using recursive function)
12. Find sum and average of given n numbers.
13. Bubble Sort.
14. Check whether a given number is palindrome or not.
15. Concatenate 2 strings and find string length using user-defined functions.
16. String copy & String Compare using user-defined functions.  
*By mistake do not use built-in functions for 15 & 16*
17. Count the number of Vowels in a given String.
18. Check whether the matrix is symmetric or not.
19. Find transpose of matrix.
20. Multiply two matrices.

21. Hockey program from structures.
22. Employee program from structures
23. Create copy of a file.

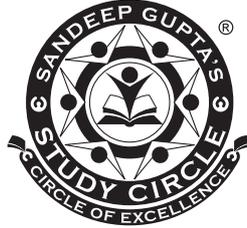
**Theory:**

Page Number in Printed Notes	Question
70, 71	Library Functions
36	Compare while, do-while and for loop
33	What is the purpose of the switch statement ? Explain its working in detail?
34	Compare switch and nested if-else (or else-if ladder or if-else).
36	continue and break statements
41	Explain what is recursion. Compare recursion and iteration.
46	Write notes on storage classes.
49	Explain the use of the following library functions. (i) strlen (ii) strcpy (iii) strcat (iv) strcmp
52	Explain the reference operator (or address operator) in C? OR Explain what is meant by referencing?
52	Explain the dereference operator (or indirection operator or value at address operator) in C? OR Explain what is meant by dereferencing?
53	Explain <i>call by value</i> parameter passing technique in C.
53	What is <i>call by address (call by pointer or call by reference or call by location)</i> parameter passing technique in C?
Combine above 2 answers	Explain the different parameter passing techniques in C.
64	Explain in detail about opening and closing a data file.
66	Explain how to read the contents of file and write into the file with syntax? OR  What are the different methods of carrying out file I/O in C language? What different library functions are supported by C language to do this?

***GOOD LUCK !!***

*Feel free to call for any doubts. 😊*

*Never ever throw away your SPA notes especially if you are in COMP's or IT'*



## Java Integrated Course (OOPM)

(COMP, IT, EXTC, ETRX, ELEC, INSTRU & BIOM)

- In semester 3, Sandeep Sir teaches 2 programming subjects – OOPM and DS. The subject **OOPM** (Object Oriented Programming Methodology) should be seen as a next step to **SPA** which had C programming language. OOPM comprises of **JAVA** which is one of the most versatile programming languages ever invented. OOPM is common for COMPS, IT, EXTC, ETRX, ELEC, INSTRU & BIOM.
- For COMP & IT, the weightage of OOPM is 50(Practical) + 50(Term work) = 100 marks. The weightage of OOPM for BIOM is 100 (Practical + Term Work), for ELEC & INSTRU weightage is 75 (Practical + Term Work), for EXTC & ETRX weightage is 50 (Practical + Term Work).
- For maximum student benefit, we offer a course called "**Java Integrated Course**", which will train the student for the following 3 things:
  - a. OOPM (Core Java)
  - b. Oracle Certified Java Professional (OCJP)
  - c. Project Internship.
- So, you **pay for one** course but get benefit of **three** courses. At the end of course students will get a "**Project Internship & Course Completion Certificate**". To know more about this course and **OCJP** especially we suggest that you watch our short youtube video. For video link whatsapp "OOPM" to 9821882868.

### Schedule & Fees of Java Integrated Course:

Venue	Day	Timing	
<b>Vacation Batches</b>			<b>Fees:</b> 9750/-  <b>Discount:</b> 750/- if you join till 15 <sup>th</sup> June.
MULUND		13 June to 29 June - 12.15 PM to 4.30 PM (with 20 min break )	
VASHI		13 June to 29 June - 5.15 PM to 9.30 PM (with 20 min break)	
BORIVALI		01 July to 13 July - 12 PM to 5 PM (with 30 min break)	
❖ Weekly Off for above batches will be on Sunday or Saturday. ❖ For Borivali batch, if college opens earlier, than lectures will be in evening.			
<b>Regular Batches</b>			<b>Effective Fees:</b> 9000/-
MULUND	Sun	8.00 AM to 11 AM (with 15 min break)	
VASHI	Wed	6.30 PM to 9.30 PM (with 15 min break)	
BORIVALI	Tue	6.30 PM to 9.30 PM (with 15 min break)	

**COMP & IT Students: Please Turn Over.**

**COMBO OFFER (Only for Comp & IT):**  
**3500/- discount on joining both OOPM & DS till 15<sup>th</sup> June.**

# Data Structures & Algorithm Analysis (COMP & IT)

- **DS** (COMP) stands for "Data Structures" & **DSAA** (IT) stands for "Data Structures and Algorithm Analysis". Almost 80% of the syllabus of DS and DSAA is same. DS (& DSAA) weightage is 20 + 80(**Theory Exam**) + 25 + 25 = 150 marks.
- DS (or DSAA) is undoubtedly the **most difficult & most important** subject of semester 3. It contains **C** programming, but on an advanced level.
- It is normally observed that in the first few weeks of semester 3, students take DS (or DSAA) lightly since they think they already know C. However, after a few weeks they realize that although the subject involves C, the programs are much more complex in nature. These programs are mainly on **Linked Lists** in which Pointers and Structures is used heavily.

## Why should You take DS seriously ??

When **dream** companies like Google, Facebook, Amazon, J.P. Morgan etc. conduct placements, the most important thing which these companies look for is whether the student has sound knowledge of data structures & Algorithm Analysis. You may be good in many other things but if you are not good in DS, you don't stand a chance in these companies. Good knowledge of this subject will also help you in your M.S., M.E. or M. Tech. If you plan to give GATE after you B.E. then your concepts of DS & AA should be very clear.

## Schedule & Fees of DS/DSAA:

Venue	Day	Timing	Fees: 9750/-
MULUND	Sun	11.30 AM to 2.30 PM (15 min break inclusive)	<b>Discount: 750/-</b>
VASHI	Thu	6.30 PM to 9.30 PM (15 min break inclusive)	if you join till 15 <sup>th</sup> June.
BORIVALI	Fri	6.30 PM to 9.30 PM (15 min break inclusive)	<b>Effective Fees: 9000/-</b>

## COMBO OFFER:

**3500/- discount on joining both OOPM & DS (or DSAA) till 15<sup>th</sup> June.**

Mulund (W): 9223376244 , 9821882868, 02225612868

Vashi: 9223376244 , 9821882868 , 02227882868

Borivali (W): 02228922489, 9167738904, 9821882868

*Before you come to our office for taking admission, please call us to know our office timings.*

*You may use Google for our institute's exact location. Simply search for "Sandeep Gupta Mulund" or "Sandeep Gupta Vashi" or "Sandeep Gupta Borivali"*

[www.study-circle.org](http://www.study-circle.org) / [www.sandeepgupta.org](http://www.sandeepgupta.org)

**To understand importance of Java & Oracle Certification, watch our short youtube video. Whatsapp "OOPM" to 9821882868 to get the link.**