

**People's Education Society's**  
**Dr.Ambedkar College of Commerce & Economics, Wadala, Mumbai – 400 031**  
**S.Y.B.Sc. (IT) Fourth Semester Examination April 2016**  
**Sub: Core Java and Data Structure**

**Date: 15/04/2016**

**Marks:75**

**Time: 8.00 to 10.30**

**Note: All questions are compulsory.**

Q.1)		Attempt any two from the following.	
	A)	Write a short note on JVM	(05)
	B)	Explain the concept of Finalize method in java	(05)
	C)	Write a java program to calculate factorial of given no.	(05)
Q.2)		Attempt any two from the following.	
	A)	What is Exception? How it is handle in java?	(05)
	B)	Explain any 3 String handling function?	(05)
	C)	Write a short note on "Package in Java"	(05)
Q.3)		Attempt any two from the following.	
	A)	Write a java program to display content of "Data.txt" file on console screen?	(05)
	B)	Explain Output Stream class in Java?	(05)
	C)	Explain File class in Java?	(05)
Q.4)		Attempt any two from the following.	
	A)	What is Data structure? Explain its types?	(05)
	B)	Write an algorithm to insert an element in an Array?	(05)
	C)	Write an algorithm to delete an element from Quene?	(05)
Q.5)		Attempt any two from the following.	
	A)	Write an algorithm to search an element in Link List?	(05)
	B)	Define following terms: path, leaf, sibling, edge	(05)
	C)	Write an algorithm for pre order traversal in tree?	(05)
Q.6)		Attempt any two from the following.	
	A)	Explain Insertion sort algorithm?	(05)
	B)	What is Graph? Explain different types of Graph?	(05)
	C)	Explain any one method to represent graph in memory?	(05)
Q.7)		Attempt any three from the following.	
	A)	Write a short note on "Data types in java"	(05)
	B)	Write an algorithm to add an item in stack?	(05)
	C)	Explain different methods to control threads	(05)
	D)	Write a java code to display five information (such as name, path, length etc)?	(05)
	E)	Write an algorithm to traverse through a link list?	(05)
	F)	Explain any one conditional structure with example?	(05)