

**GOVERNMENT POLYTECHNIC MUMBAI**  
**TERM END EXAMINATION**

Programme : Information Technology (SP)  
 Course Title : Java Programming

~~210~~  
~~35~~

~~20~~  
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2:30 Hours / 60 marks

Enrolment No.

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**Instructions:**

1. Attempt all the questions.
2. Illustrate your answers with neat sketches wherever necessary.
3. Use of Mathematical Tables, Steam Table and Pocket Calculator (non-programmable) is permissible.
4. Marks on Right Hand Side indicate full marks for the question.
5. Assume suitable additional data, if necessary
6. CO-COURSE OUTCOMES, L-LEVELS

<b>Q.1</b>	<b>Attempt any SIX</b>	<b>12 Marks</b>
a.	Define class & object.	[CO-1, L-R]
b.	Define inheritance.	[CO-3, L-R]
c.	State interfaces in java.	[CO-3, L-R]
d.	Define user defined exceptions.	[CO-4, L-U]
e.	State the use of generic methods in java programming.	[CO-5, L-U]
f.	State byte stream & character stream classes.	[CO-6, L-R]
g.	State any two classes & interfaces present in java.io package.	[CO-6, L-U]
h.	Define streams.	[CO-6, L-U]
i.	State arraylist.	[CO-7, L-R]
<b>Q.2</b>	<b>Attempt any THREE</b>	<b>12 Marks</b>
a.	Explain public static void main () method in java.	[CO-1, L-U]
b.	Write a program to demonstrate static methods in java.	[CO-2, L-A]
c.	Explain dynamic method dispatch with example.	[CO-3, L-U]
d.	Explain Lambda expression with example.	[CO-5, L-U]
<b>Q.3</b>	<b>Attempt any THREE</b>	<b>12 Marks</b>
a.	Explain constructor overloading with example.	[CO-2, L-U]
b.	Write a program to demonstrate use of super keyword to call super class's constructor in inheritance.	[CO-3, L-A]
c.	Explain how to create user defined package in java.	[CO-3, L-U]
d.	State and explain inner classes in java.	[CO-5, L-U]
<b>Q.4</b>	<b>Attempt any FOUR</b>	<b>12 Marks</b>
a.	Explain thread priority with example.	[CO-4, L-U]
b.	State the use of 'throws' keyword in exception handling in java along with example.	[CO-4, L-A]
c.	Write short note on - Bounded generics.	[CO-5, L-A]
d.	Define functional interface. Explain it with example.	[CO-5, L-U]
e.	Explain list interface with example.	[CO-4, L-U]
<b>Q.5</b>	<b>Attempt any TWO</b>	<b>12 Marks</b>
a.	Write short note on : (i) Array (ii) Strings in java.	[CO-2, L-U]
b.	Draw the neat diagram of thread's life cycle. Explain each state in detail.	[CO-4, L-U]
c.	Write a program to read data from one file & write that data in another file using character stream classes.	[CO-6, L-A]