## Roll No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2017

| Program Name: B.Tech (EIE) IOT | Semester - III |
| :--- | :--- |
| Course Name : OOPS Through Java | Max. Marks : 100 |
| Course Code : CSEG319 | Duration $: \mathbf{3 ~ H r s}$ |
| No. of page/s: 2 |  |

Note: All questions are compulsory.
Assume appropriate data as and where necessary
SECTION - A
5*4=20 Marks

1. Explain Java Memory Model?
2. Explain the concept of inner class with example?
3. A) Which of the following may be part of a class definition? Options are
a. instance variables
b. instance methods
c. constructors
d. all of the above
B) The implicit return type of a constructor is
a. void
b. Class object in which it is defined
c. There is no return type
d. None
4. Write java code to explain the following methods:
a) String charAt()
b) String compareTo()
5. Explain constructor and state different types of constructors?

SECTION B
4*10=40Marks
6. What is exception and error? State the difference between checked and unchecked exception?
7. Why String objects are immutable? Discuss the differences between overloading and overriding?
8. a) Explain wrapper class? State all the wrapper classes?
b) Write a program to demonstrate polymorphism of two methods add and subtract?
9. What is thread in java and explain thread life cycle?

## SECTION C

2*20=40 Marks
10. (a) What is JDBC? Explain all JDBC drivers in detail?
(b) Also write their advantages and disadvantages $(5+15+5)$
11. Explain IO streams with pictorial representation and state at least two classes each for input and output of each category? Write a Program to read from a file using BufferedReader class?

