Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Advanced Functional Thinking **Semester: V**
Program: B.Tech (CSE + Bigdata) **Time 03 hrs.**
Course Code: CSBD3002 **Max. Marks: 100**
Instructions: All questions are compulsory. Question no 9 and 11 has internal choice.

SECTION A

S. No.		Marks	CO
Q 1	Differentiate between java and Scala.	**4**	**CO1**
Q 2	Describe the if-else-comprehension in Scala with pseudo code.	**4**	**CO1**
Q 3	Describe function declaration in Scala.	**4**	**CO2**
Q 4	Mention the types of variables in Scala and differentiate between them.	**4**	**CO2**
Q 5	Write few frameworks of Scala.	**4**	**CO3**
	SECTION B		
Q 6	Using a small code snippet discuss why do we need *App* in Scala. Explain *Closure* in Scala.	**6+4**	**CO4**
Q 7	Illustrate the method overloading and operator overloading in Scala with example. Explain *extend* Keyword in Scala.	**6+4**	**CO2**
Q 8	Explain implicit classes with syntax. Why Traits used in scala? What is a trait mixins in Scala?	**2+4+4**	**CO3**
Q 9	Discuss the different types of *Literals* in Scala. Explain string interpolation in Scala with code snippet.	**2+8**	**CO2**
Q 9 (OR)	Discuss the use of *f* method and *raw* method in Scala string interpolation	**5+5**	**CO2**
	SECTION-C		
Q 10	Explain pattern matching in Scala through an example. Using pattern matching explain the result of x+y*z. Describe *finally block* in scala.	**10+8+2**	**CO4**
Q 11	Explain different types of variable declaration process in Scala with proper code. Explain the need of higher-order function in Scala with example. Explain the working of *yield* in Scala.	**5+10+5**	**CO1, CO5**
Q 11 (OR)	Explain the following concepts with the help of code snippet a. function in Scala b. functionality of Yield c. Map function d. Scala exception	**5+5+5+5**	**CO1, CO5**