Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022

Program Name : BCA Course Name : Computer Fundamentals Course Code : CSBC1001 Semester : I Time : 3 hr Max. Marks : 100

Instructions: This paper contains two pages with 11 questions divided among three sections. Section A contains five short answer type questions. Section B contains 4 medium duration answer type questions with an internal choice for Q9. Section C contains 2 long answer type questions with an internal choice for Q11.

SECTION A (50x4M=20Marks)

S. No.		Marks	СО	
Q 1	Briefly explain the 1 st and 2 nd generations of the computers with examples?	4	CO1	
Q 2	Explain selection and loop (any 1) statements with pseudo-code/flowchart.	4	CO1	
Q 3	What is an optical disk? Describe various types of optical disk with examples?	4	CO2	
Q 4	Describe compiler, assembler and interpreter with examples?	4	CO3	
Q 5	Describe any four Unix commands out of the following five Unix commands: <i>mv</i> , <i>cat</i> , <i>ls</i> , <i>wc</i> , <i>rm</i>	4	CO4	
	SECTION B			
(4Qx10M= 40 Marks)				
Q 6	Explain the memory hierarchy with the help of a diagram? Describe the difference between SRAM and DRAM?	10	CO2	
Q 7	 What is an operating system? Explain the following terms in details with suitable examples a) Communication software b) Performance monitoring software c) Application software 	10	CO3	
Q 8	Explain the following terms: a) Process b) Grep c) Cmp d) diff e) find	10	CO4	

Q 9	 Design a flowchart/pseudocode for the following: a) Write a pseudocode to output the sum of first n odd numbers? b) Write an algorithm to read two numbers then display the largest. c) Write an algorithm to read 100 numbers then display the largest. 			
	OR			
Q9	 Design a flowchart/pseudocode for the following a) Input two numbers from the user num1 and num2. Check if num1 is divisible by num2 or not? If num1 is divisible by num2 then display "hello" otherwise display "world". b) Write an algorithm to read three numbers then display the largest? c) Write an algorithm to read 100 numbers then display the largest. 	10	CO1	
SECTION-C				
	(2QX20M=40 Marks)			
Q 10	a) Describe Unix and its architecture with the help of diagram?b) Explain various types of file permissions with examples?c) Explain input and output re-direction with suitable examples?d) Explain find command?	8+6+4+2	CO4	
Q 11	a) Explain the term registers? Describe various types of registers with suitable examples?b) Explain with examples various input and output devices in details?	12+8		
	OR		CO2	
	a) What is a Hard disk? Describe the structure of a hard disk with the help of a diagram.b) Explain how the data is stored and accessed in the hard disk with suitable examples?c) Briefly explain the low and high level formatting in a hard disk?	9+7+4		