	B. M.S. COLLEGE OF ENGINEERING, BANGALORE-19 (Autonomous Institute, Affiliated to VTU) **Department Name: CSE**

Second INTERNALS – Online		
Course Code : 20CS5PEAAG	**Course Title : Advanced Algorithms**	
Semester :5th	**Maximum Marks: 40**	**Date: 2-12-2020**
Faculty Handling the Course:	NN,GRP	
Instructions: ***Internal choice is provided in Part C.***		

PART-A

Total 5 Marks (No choice)

No.	Question	Marks	CO No.	Level
1a	Design a pseudo code/program for Naive string matching.	5M	3	2

PART-B

Total 15 Marks (No Choice)

No.	Question	Marks	CO No.	Level
2a	Derive the performance metrics SPAN and WORK for multi threaded Fibonacci number generation(n=4).	5M	2	3
2b	Design an algorithm for multithreaded matrix multiplication.	5M	3	3
2c	Apply multithreaded merge sort to sort 5,3,6,1,4,2	5M	1	3

PART- C

Total 20 Marks (Choice)

No.	Question	Marks	CO No.	Level
3a	Design an algorithm for string matching using Rabin karp approach. Also apply the same to search for P="abba" in T="ababaabbab"	10M	2,3	2,3
	OR			
3b	Design an algorithm for string matching using Finite Automata. Also apply the same to search for P="baab" in T="ababaabbab"	10M	2,3	2,3
4a	Design pseudocode/program to for string matching using Horspool's technique. Also apply the same to search for P="prada" in T="praveenprashanathpradan"	10M	2,3	2,3
	OR			
4b	Design pseudocode/program for string matching using Boyer	10M	2,3	2,3

	Moore approach. Also apply the same to search for P="abcbab" in T="abbababababcbababb"			