SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE
www.sathyabama.ac.in

Continuous Assessment Examination 2 (Oct. 2021)

Program : CSE **Max. Marks : 30**
Course : B.E. **Time : 1 Hour**
Course code : SCSA1501 **Sem : V**
Batch : 2019-2023 **Date : 20.10.2021**

Part-A **Answer ALL the questions** **(5×2=10)**

Q.No	Questions	CO
1.	What is meant by cooperating process?	CO3
2.	Define semaphore. List out its types	CO3
3.	What is the deadlock avoidance?	CO3
4.	Define page fault.	CO4
5.	Differentiate internal and external fragmentation	CO4

Part-B **Answer ALL the questions** **(2×10=20)**

Q.No	Questions	CO
6.	Consider the following snapshot of a system Allocation Max Available A B C D A B C D A B C D P0 0 0 1 2 0 0 1 2 1 5 2 0 P1 1 0 0 0 1 7 5 0 P2 1 3 5 4 2 3 5 6 P3 0 6 3 2 0 6 5 2 P4 0 0 1 4 0 6 5 6 Answer the following question using Banker's algorithm a) What is the content of the matrix Need? b) Is the system in a safe state? c) If a request from process p1 arrives for (0,4,2,0) can the request be granted immediately?	CO3
(OR)		

7.	Explain Dining Philosophers Problem with its solution.	**CO3**

8.	(i) Enumerate the steps in handling a page fault with a neat diagram. (ii) Consider the page reference string: 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3 and 6 .How many page faults would occur for the following page replacement algorithm, assuming three frames? Assume all the frames are initially empty. (i)FIFO page replacement algorithm (ii)Optimal page replacement algorithm (iii)LRU page replacement algorithm	**CO4**
	(OR)	
9.	i) Explain in detail page replacement algorithms with a simple example. (ii) What are the steps in handling a page fault?	**CO4**