



Seat No.	
----------	--

Set	P
-----	---

B.Sc. (E.C.S.) II (Semester – IV) (Old CGPA) Examination, 2018
Paper – I : OPERATING SYSTEM – II

Day and Date : Thursday, 3-5-2018
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

Note : 1) *All questions are compulsory.*
2) *Figures to the right indicate full marks.*

1. Choose the correct alternative :

14

- 1) The FIFO algorithm _____.
 - a) executes first the job that last entered the queue
 - b) executes first the job that first entered the queue
 - c) execute first the job that has been in the queue the longest
 - d) executes first the job with the least processor needs
- 2) The memory allocation scheme subject to “external” fragmentation is _____.
 - a) segmentation
 - b) swapping
 - c) pure demand paging
 - d) multiple contiguous fixed partitions
- 3) Dijkstra’s Bankers algorithm in an Operating System solve the problems of
 - a) Deadlock avoidance
 - b) Deadlock recovery
 - c) Mutual exclusion
 - d) Context switching
- 4) _____ allocates the largest hole available in the memory.
 - a) best fit
 - b) first fit
 - c) worst fit
 - d) none of these
- 5) File record length _____.
 - a) should always be fixed
 - b) should always be variable
 - c) depends upon the size of file
 - d) should be chosen to match the data characteristics
- 6) Virtual memory can be implemented with
 - a) segmentation
 - b) paging
 - c) none
 - d) all of the above

P.T.O.



2. Answer the following (**any 7**) : **14**
- 1) List types of resources in deadlock problems on computer.
 - 2) What is Kernal ?
 - 3) What is virtual memory ?
 - 4) List out different file attributes.
 - 5) Compare paging and segmentation.
 - 6) Define swapping.
 - 7) What is first fit ?
 - 8) Write necessary condition of deadlock.
 - 9) Define double buffering.
3. A) Answer the following (**any 2**) : **10**
- 1) Explain swapping technique for memory management with diagram.
 - 2) Explain architecture of Unix O.S.
 - 3) Explain deadlock detection.
- B) Explain virtual memory with demand paging. **4**
4. Answer the following (**any 2**) : **14**
- 1) Explain file directory structure.
 - 2) Draw and explain process state transition diagram for Unix O.S.
 - 3) Explain Banker's and safety algorithm.
5. Answer the following (**any 2**) : **14**
- 1) Write different file accessing method.
 - 2) Solve the following string by FIFO and optimal replacement algorithm
(Take Frames 3)
and also define page fault.
1, 2, 3, 4, 1, 2, 5, 1, 2, 3, 4, 5
 - 3) Write advantages and disadvantages of buffer cache.