

13. What is CPU scheduling ? Explain through SJF algorithm.
14. Explain Deadlock prevention, avoidance and detection.
15. Write short notes on :
- (a) Contiguous memory allocation
- (b) Page replacement
16. Explain the security system of Linux.

This question paper contains 4 printed pages]

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B.C.A. (Second Year) EXAMINATION, 2018

Paper-III

(Fundamentals of Operating System)

Time allowed : Three Hours

Maximum Marks : 100

Part A (खण्ड 'अ') [Marks : 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो। सभी प्रश्नों के अंक समान हैं।

Part B (खण्ड 'ब') [Marks : 50]

Answer five questions (250 words each),

selecting one question from each Unit.

All questions carry equal marks.

प्रत्येक इकाई से एक प्रश्न चुनते हुए कुल पाँच प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो। सभी प्रश्नों के अंक समान हैं।

Part C (खण्ड 'स') [Marks : 30]

Answer any two questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो। सभी प्रश्नों के अंक समान हैं।

Part A

1. ~~(a)~~ Define multiprocessor.
- ~~(b)~~ Define handheld system.
- ~~(c)~~ Define interprocess communication.
- ~~(d)~~ What is scheduling criteria ?
- ~~(e)~~ Define semaphores.
- ~~(f)~~ Define deadlock characterization.
- ~~(g)~~ What is swapping ?
- ~~(h)~~ What is thrashing ?
- ~~(i)~~ What is shell ?
- ~~(j)~~ Define kernel.

Part B

Unit I

2. Write short notes on :
 - (a) Clustered system
 - (b) Real time system.
3. What is operating system ? Explain its services.

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Unit II

- ~~4.~~ What is Process ? Explain process scheduling.
- ~~5.~~ Explain algorithm evaluation with suitable example.

Unit III

6. What is process synchronization ? Explain its critical section problem.
7. What is deadlock ? What are the recovery from deadlocks ?

Unit IV

- ~~8.~~ What is memory management ? Explain its segmentation with paging.
9. What is virtual memory ? Explain its allocation of frames.

Unit V

10. Explain the file system of Linux.
11. What are the interprocess communications in Linux.

Part C

12. Write short notes on :
 - (a) System components
 - (b) System programs.

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P.T.O.