

Reg. No. :

D 1516

Q.P. Code : [07 DSCA 05]

(For the candidates admitted from 2007 onwards)

B.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

Part III – Computer Applications

DATA STRUCTURES AND ALGORITHMS

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. (a) What is SPARKS? Describe rules of creating good looking program using SPARKS.
(b) Explain the phases in the process of creating programs. (10+10)
2. (a) Explain the use of stack in evaluating arithmetic expressions with an example. (12)
(b) Write a note on infix and post fix notations. (8)
3. (a) What is Queue? Explain the various operations performed on queue.
(b) What are the capabilities of linked representations? (12+8)

4. (a) Write the algorithm for polynomial addition using linked list.
(b) Write about garbage collection and compaction. (12+8)
 5. (a) Explain the various search techniques.
(b) Distinguish between internal and external sortings. (12+8)
 6. (a) Elaborate on the various file organizations.
(b) What is symbol table? (12+8)
 7. (a) Discuss the different hashing functions.
(b) Write a note on various index techniques. (12+8)
 8. Write and explain with example of quick sort. (20)
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Reg. No. :

D 1518

Q.P. Code : [07 DSCA 07]

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B.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

Part III – Computer Application

OPERATING SYSTEMS

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. What are major achievements of an operating system? Explain.
2. (a) Narrate the developments leading to modern operating systems. (10)
(b) Give a note on traditional UNIX systems. (10)
3. Explain the concept of operating system structure.
4. Discuss the various I/O scheduling policies.
5. (a) Elucidate the evolution of multi programming. (10)
(b) Give a brief account on process state transitions. (10)

6. Describe the variable partitioned memory management technique with allocation algorithm.
 7. Elaborate on paging concept with implementation procedures of page map labels.
 8. Give a detailed description on client/server computing technology.
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