

Roll No. ....

97669

BCA 3rd Semester  
Examination – December, 2022

INTRODUCTION TO OPERATING SYSTEM

Paper : BCA-201

Time : Three Hours ]

[ Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

*Note :* Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*.

1. Write short note on following :

16

(i) Operating system

(ii) FCFS

(iii) Paging

(iv) Disk structure

97669-6600-(P-3)(Q-9)(22)

P. T. O.



## UNIT - I

2. Explain the following : 16
- (i) Distributed System
  - (ii) Real Time System
3. Give a complete description about Inter-process communication. 16

## UNIT - II

4. Define deadlock and its characteristics. Also explain about Banker's algorithm. 16
5. Define CPU scheduling and scheduling criteria. Also explain about Round Robin and queue algorithm. 16

## UNIT - III

6. Explain the following : 16
- (i) Segmentation
  - (ii) Swapping
7. Define paging. Explain page replacement algorithms in detail. 16



## UNIT - IV

8. What do you understand by free space management. Explain in detail. 16
9. Define Disk structure. Explain the following : 16
- (i) C-Scan
  - (ii) C-Look
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97670

BCA 3rd Semester  
Examination – December, 2022

DATA STRUCTURE - I

Paper : BCA-202

Time : Three Hours ]

[ Maximum Marks : 80

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note : Attempt five questions in all, selecting one question from each Unit. Question No. 1 is compulsory.*

1. Write short note on following : 16

(i) Data structure

(ii) Array.

(iii) Deque

(iv) Graph



## UNIT – I

2. Define Data structure. Explain its categories and applications in detail. 16
3. (i) What do you mean by Pattern Matching algorithm. Explain in detail. 8
- (ii) Define string and string operation in detail. 8

## UNIT – II

4. Explain the following : 16
- (i) Parallel arrays
- (ii) Deletion in on array
5. Describe the following : 16
- (i) Garbage collection
- (ii) Two way linked list

## UNIT – III

6. (i) Define Stack. Explain different operation on stacks in detail. 8
- (ii) Give a complete description about recursion. 8



7. Define queue. Explain operations on queues. Also describe its applications in detail. 16

#### UNIT – IV

8. What is traversing in data structure. Explain in detail. 16
9. Define graph. Explain sequential and linked representation of graphs. 16
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Roll No. ....

97671

BCA 3rd Semester  
Examination – December, 2022

INTRODUCTION TO DATABASE SYSTEM

Paper : BCA-203

Time : Three Hours ]

[ Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

**Note :** Attempt *five* questions in all, selecting *one* from each Unit. Q. No. 1 is *compulsory*.

1. Write short notes on following :

16

(i) Data

(ii) Scheme

(iii) Entity

(iv) Query

97671-6450-(P-3)(Q-9)(22)

P. T. O.



## UNIT – I

2. Explain the following : 16
- (i) Advantages and disadvantages of database system.
  - (ii) Limitations of file based approach
3. Define database management system. Explain its functions and components in detail. 16

## UNIT – II

4. Describe in detail the three levels of architecture of database system. 16
5. Explain the following : 16
- (i) Client server architecture
  - (ii) Object based data models

## UNIT – III

6. Describe the following : 16
- (i) Abstraction and integration
  - (ii) Entity set



7. Explain the following :

- (i) Relations
- (ii) Network Data model

**UNIT - IV**

8. Give a complete description about normalization. 16

9. Explain the following : 16

- (i) Query optimization
  - (ii) Concurrency and recovery
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Roll No. ....

97672

BCA 3rd Semester  
Examination – December, 2022

COMMUNICATION SKILLS (English)

Paper : BCA-204

Time : Three Hours ]

[ Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equals marks.

1. Answer any *eight* of the following questions :

8 × 2 = 16

- (a) What is communication ?
- (b) Write a note on the scope of communication.
- (c) What is encoding and decoding ?
- (d) What is communication process ?

97672-5950-(P-4)(Q-9)(22)

P. T. O.



- (e) What is communication barrier ?
- (f) Explain the semantic barrier.
- (g) What is verbal communication ?
- (h) What is dynamic communication ?
- (i) Form words from prefixes : Anti ....., dis .....
- (j) Form words from suffixes : ..... able, ..... ance.
- (k) Give synonyms of the words : Calm, Careful.
- (l) Give antonyms of the words : Idle, Fair.

### UNIT – I

- 2. What do you mean by communication ? State its functions. 16
- 3. Define communication. Explain the factors that are responsible for its growth. 16

### UNIT – II

- 4. What is verbal communication ? Explain the features of effective verbal communication. 16
- 5. Define Oral communication. What are its advantages ? 16



UNIT – III

6. (a) Define soft skills. How these can be developed ? 16
- (b) Describe misconceptions about soft skills.
7. (a) Form the words from the following prefixes : 16  
Mono ....., Multi ....., Re ....., en .....
- (b) Form the words from the following suffixes :  
..... less, ..... ful, ..... ess, ..... ility.
- (c) Illustrate the meaning of the following words :  
Loose, lose – breaks, brakes – dual, duel, – accept, except
- (d) Give the *one* word substitute for the following ;
- (i) Absence of government.
- (ii) One who does not believe in the existence of God.
- (iii) The life history of a person written by himself.
- (iv) Government by people.



UNIT - IV

8. What is reading efficiency ? How will you improve reading efficiency ? 16

9. What are the objectives of Interviews ? 16

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