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B.C.A. DEGREE (CBCS) EXAMINATION,
MARCH 2020.

(Examination at the end of Second Semester)

Part – II

OBJECT ORIENTED PROGRAMMING USING C++

(Regulation 2015 – 16)

Time : Three hours Maximum : 75 marks

SECTION A – (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Write about applications of C++.
2. Write about tokens in C++
3. Write about access qualifiers in C++
4. Write about constructs overloading in C++.
5. Write about multilevel Inheritance in C++.
6. Write about Nested classes with example
7. Write about overloaded function template.
8. Write are two formatted and unformatted data in C++.

SECTION B – (5 × 10 = 50 marks)

Answer the following questions.

UNIT I

9. Explain inline functions in C++ with an example.

Or

10. Explain type casting in C++.

UNIT II

11. What is constructor? Explain the types of constructors in C++.

Or

12. Explain Dynamic objects and static objects.

UNIT III

13. Explain overloading of Binary operators with example.

Or

14. Explain the concept of Abstract class with example.

UNIT IV

15. Explain pure virtual function with example.

Or

16. Explain the function templates with an example.

UNIT V

17. Explain Nested try and Multiple catch block with an example.

Or

18. What is file? Explain file operation in C++.

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B.C.A. DEGREE (CBCS) EXAMINATION,
MARCH 2020

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Part II

STATISTICAL METHODS AND THEIR APPLICATIONS

(Regulation 2015-2016)

Time : Three hours Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Explain Frequency Polygon.

2. Explain objectives of tabulation of data.

3. Explain properties of Arithemetic mean.

4. Find median and mode for the following data.

   10, 12, 14, 20, 12, 16, 18, 15, 12, 10, 16, 20, 12, 24.

5. Explain coefficient of variation.

6. Explain measures of skewness.

7. Explain types of correlation.

8. Explain scatter diagram.

PART B — (5 × 10 = 50 marks)

Answer ALL the questions.

9. (a) What is meant by classification of data? Discuss various methods of classification.

Or

(b) From the following data, calculate more and less than frequency curves.

Class:	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Frequency:	7	19	27	15	6	6	4

10. (a) Explain measures of central tendency and give their merits and demerits.

Or

(b) For the following data draw both types of ogive and determine the median.

C-I	0-10	10-20	20-30	30-40	40-50	50-60	60-70
F	2	6	8	15	6	4	1

11. (a) Explain various measures of dispersion and give merits and demerits.

Or

(b) Find quartile deviation to the following data.

C.I:	0-20	20-40	40-60	60-80	80-100
F:	10	25	40	15	10

12. (a) Find Karl Pearson's Coefficient of Skewness to the following data.

C.I:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
F:	2	6	11	20	40	75	45	25

Or

(b) Find Bowley's Coefficient of Skewness to the following data.

C.I:	5-10	10-15	15-20	20-25	25-30	30-35	35-40
F:	45	26	18	13	12	12	4

13. (a) Calculate correlation coefficient to the following data.

X:	10	15	12	17	13	16	24	14	22	20
Y:	30	42	45	46	33	34	40	35	39	38

Or

(b) Compute Spearman's rank correlation coefficient for the following data.

X:	20	14	36	29	5	11
Y:	19	9	25	10	2	6

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B.C.A. (CBCS) DEGREE EXAMINATION,
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Part – II

OPERATING SYSTEMS

(Regulation 2016-17)

Time : Three hours Maximum : 75 marks

SECTION A – (5 × 5 = 25 marks)

Answer any FIVE of the following.

1. What spooling? Explain.

2. Write are the services of operating systems.

3. What is a process? Explain different states of a process.

4. Write short notes on schedulers.

5. What is Swapping ?

6. Explain segmentation with paging.

7. What is a file? Write about various types of files.

8. Briefly explain Recovery from dead lock.

SECTION B – (5 × 10 = 50 marks)

Answer ALL of the following questions.

UNIT I

9. (a) Explain evolution of operating system.

Or

(b) Write the objectives and functions of operating systems.

UNIT II

10. (a) Explain Priority and Round Robin scheduling algorithms with example.

Or

(b) Explain the concept of Monitor and its usage to solve synchronization problem.

UNIT III

11. (a) Explain paging scheme in detail.

Or

(b) Describe any two page replacement algorithm.

UNIT IV

12. (a) What are various File Accessing methods?

Or

(b) Explain Scan and CSCAN disk scheduling algorithm.

UNIT V

13. (a) What are the various conditions for Dead lock occurance and briefly explain deadlock prevention.

Or

(b) Explain Bankar's algorithm for safety and Resource Request.

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