

3. Do as directed :

(a) Give the prefixes of the following words and mark accents :

Just, qualify, lingual, partial, agree. 5

(b) Give the suffixes of the following words and mark accents :

Child, happy, product, harm, enjoy. 5

(c) What is important while making a short formal public speech, talk shows and making telephonic conversation ? 10

4. (a) Why is Listening Skill Important ? What is Effective Listening ? What are barriers and implications of effective listening ? 10

(b) What should we keep in mind while understanding and appreciating the lyrics of a song and dialogues of a movie ? 5

B215

B.C.A. EXAMINATION, May 2019

(Second Semester)

(B. Scheme) (Main & Re-appear)

(BCA)

HUM502B

ENGLISH-II

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Attempt all questions.

1. Do as directed :

(a) Change the voice of the following :

(i) She told us the secret of success.

(ii) We expect good news.

- (iii) Why have you spent so much money ?
- (iv) His conduct displeased me.
- (v) It is time to say prayers.
- (vi) Will they answer all these questions ?
- (vii) Do it. 5

(b) Complete the following using clauses :

- (i) The minister gave a dull speech which.....
- (ii) People will be polite to us if.....
- (iii) They promised that.....
- (iv) I know the boy who.....
- (v) You must do as.....
- (vi) It seems that.....
- (vii) The report that.....
- (viii) This is the only idea that.....
- (ix) The scenery which.....
- (x) When his father died.....
- (xi) Strike the iron while..... 10

(c) Correct the following :

- (i) I need three dozens oranges.
- (ii) Politics are a dirty game.
- (iii) This is a table whose leg is broken.
- (iv) I was satisfied by his work.
- (v) He is jealous from me. 5

2. Make use of maximum words from the list given below and construct twenty sentences to describe someone's personality. 20

Diplomatic, Curious, Leader Competitive, Political, Social consciousness, Modest, Courageous, Enthusiastic, Enterprising, Entrepreneurial, Facilitator, Focused, Genuine, Open-mindedness, Wise, Sensitive, Sensible, Sincere, Skilled, Solid, Communicative, Helpful, Fast, Responsible, Pleasant, Flexible, Adaptable, Persuasive, Perceptive, Insightful, Trustworthy, Ambitious.

Unit IV

8. (a) List and explain any *five* CorelDraw tools. **10**
(b) Explain shaping menu in CorelDraw. **5**
9. Write short notes on the following :
(a) Transformation
(b) Snapping
(c) Pasteboard
(d) Intersection of Objects
(e) Weld. **3×5**

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Roll No.

B214

B.C.A. EXAMINATION, May 2019

(Second Semester)

(B. Scheme) (Main & Re-appear)

(BCA)

BCA108B

DESKTOP PUBLISHING

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Q. No. 1 is compulsory. Attempt any *four* questions from Unit by selecting at least *one* question.

1. (a) Define Printing.
- (b) Discuss the following design principles of visual communication in brief :
 - (i) Variety
 - (ii) Movement.
- (c) What is a Bitmap Image ?
- (d) What is a Stroke ?
- (e) Define Image.
- (f) What is the use of filters in Photoshop ?
- (g) What is the use of snapping ?
- (h) What is the purpose of Coral Draw ?
- (i) What is the purpose of Photoshop ? 15

Unit I

2. Write brief history of printing processes. 15
3. Explain the following types of printing in detail :
 - (a) Letterpress printing
 - (b) Offset printing. 15

Unit II

4. Write detailed note on the emergence of graphics design as visual communication. 15
5. (a) Explain design elements of visual communication in detail. 9
- (b) Elaborate the following design principles in detail :
 - (i) Harmony
 - (ii) Balance. 3+3

Unit III

6. List and explain Photoshop tools in detail. 15
7. (a) What is Vector Graphics ? Explain. 5
- (b) What is relation between resolution and file size ? How can you find the image size in Photoshop ? 5
- (c) What is Canvas ? What is its significance ? 5

7. Using the concept of structure and arrays write a program in C language to store the data of all the students of your class each student record should have :

(Name, Registration No, Age, Gender). Enter the data of 40 students and then display it on the output screen. **15**

Unit IV

8. Explain the different modes in which a file can be opened in C. **15**
9. Write a program in C language for implementation of bubble sort. Show the steps how the following list will be sorted by your program : **15**
23, 15, 9, 37, 67, 98, 100

B212

B.C.A. EXAMINATION, May 2019

(Second Semester)

(B. Scheme) (Main & Re-appear)

(BCA)

BCA104B

PROGRAMMING IN C

Time : 3 Hours

[Maximum Marks : 75

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

Note : Q. No. 1 is compulsory. Attempt *four* questions from rest of the Units in all, selecting at least *one* question from each Unit. All questions carry equal marks.

1. Define the following : 15
- (i) Decision table
 - (ii) Syntax error
 - (iii) Compiler
 - (iv) Function prototype
 - (v) Type checking
 - (vi) Variable
 - (vii) Structured programming
 - (viii) Operator associativity
 - (ix) Enumerate data type
 - (x) Pointer.

Unit I

2. (a) Write five characteristics of a good algorithm. 10
- (b) Differentiate between put(), putchar() and puts(). 5
3. (a) Briefly describe the different data types supported by C language. 9
- (b) Differentiate between formatted and unformatted output giving suitable example. 6

Unit II

4. (a) Write a program in C that prints the even numbers from 1 to 200. 8
- (b) Write a program in C that will accept length and breadth of a rectangle from the user and computes its area and perimeter. 7
5. (a) With the help of suitable example illustrate the use of switch-case statement. 7
- (b) Write a program in C to calculate the sum of digits of a number. 8

Unit III

6. (a) Write a program in C to find the largest element of an array of integers. 8
- (b) Write a program in C to copy one string into another. 7

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Roll No.

B213

B.C.A. EXAMINATION, May 2019

(Second Semester)

(B. Scheme) (Main & Re-appear)

(BCA)

BCA106B

MATHEMATICS-II

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Attempt *Five* questions in all, selecting *one* question from each Unit and the compulsory Q. No. 1.

(2-05/5) M-B213

P.T.O.

1. (a) Which of the following are equal sets and why ?

$$A = \{x : x \text{ is a letter in the word Follow}\}$$

$$B = \{y : y \text{ is a letter in the word Wolf}\}$$

$$C = \{z : z \text{ is a letter in the word Fellow}\}$$

- (b) If $A = \{1, 2, 3\}$, $B = \{4\}$, $C = \{5, 6\}$, then verify that :

$$A \times (B - C) = (A \times B) - (A \times C)$$

(c) If $A = \begin{bmatrix} 1 & -3 & 2 \\ 2 & 3 & 4 \\ -1 & 0 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 0 & 1 & 2 \\ 3 & -3 & 4 \\ -2 & 1 & 5 \end{bmatrix}$,

find $10A - 7B$.

- (d) Evaluate :

$$\lim_{x \rightarrow 1} \frac{x-1}{2x^2 - 7x + 5}$$

- (e) Find the mean deviation about the mean :

3, 9, 5, 3, 12, 10, 18, 4, 7, 19, 21

Unit I

2. (a) Let $A = \{x : x \in \mathbb{N}\}$, $B = \{x : x = 2n, n \in \mathbb{N}\}$, $C = \{x : x = 2n - 1, n \in \mathbb{N}\}$ and $D = \{x : n \text{ is a prime natural number}\}$, then find :

(i) $(A \cap B) \cup (C \cup D)$

(ii) $(B \cap C) \cap (A \cap D)$ 4½+3

- (b) In a group of 950 persons, 750 can speak Hindi, and 460 can speak English. By using a Venn diagram find : 7½

(i) How many can speak with Hindi and English ?

(ii) How many can speak Hindi only.

(iii) How many can speak English only.

3. (a) If $A = \{1, 2\}$, $B = \{1, 2, 3, 4\}$, $C = \{5, 6\}$, $D = \{5, 6, 7, 8\}$, then verify that $A \times C$ is subset of $B \times D$. 7½

- (b) Find the domain and the range of the function : 7½

$$f(x) = \sqrt{(N-1)(N-2)}$$

Unit II

4. (a) Show that :

7½

$$\begin{vmatrix} 1 & bc & bc(b+c) \\ 1 & ca & ca(c+a) \\ 1 & ab & ab(a+b) \end{vmatrix} = 0$$

- (b) Find whether the system of equations is consistent ? If yes find its solution : 7½

$$8x + 4y + 3z = 18$$

$$2x + y + z = 5$$

$$x + 2y + z = 5$$

5. (a) If $A = \begin{bmatrix} -1 & 1 & 0 \\ 3 & -3 & 3 \\ 5 & -5 & 5 \end{bmatrix}$, $B = \begin{bmatrix} 0 & 4 & 3 \\ 1 & -3 & -3 \\ -1 & 4 & 4 \end{bmatrix}$,

then show that :

7½

$$A^2B^2 = A.$$

(b) If $A = \begin{bmatrix} 1 & -1 & 1 \\ 2 & -1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$, find A^{-1} and hence

show that $A^{-1} = A^2$.

4½+3

Unit III

6. (a) If $f(x) = \begin{cases} x-1 & 1 < x < 2 \\ 2x-3 & 2 \leq x \leq 3 \end{cases}$, find whether $f(x)$ is continuous at $x = 2$. 5

- (b) Differentiate $f(x) = \left(\frac{7x}{x^2+1}\right)^2$ w.r. to x and hence find $f'(1)$. 5

- (c) If $x = \frac{3at}{1+t^3}$, $y = \frac{3at^2}{1+t^3}$, then find $f'(x)$. 5

7. (a) Evaluate :

$$\int \left(x + \frac{1}{x}\right) \left(x^2 + \frac{1}{x^2}\right) dx$$

- (b) Evaluate :

$$\int \frac{x^3 - 2x^2 - 13x - 12}{x^2 - 3x - 10} dx$$

- (c) Evaluate :

$$\int_b^a \frac{dx}{1+x+2x^2}$$

Unit IV

8. (a) If $z = -5 + 4i$, show that $z^2 + 10z + 41 = 0$. $3 \times 5 = 15$

(b) Simplify :

$$\frac{3}{1+i} - \frac{2}{2-i} + \frac{2}{1-i}$$

(c) Find :

$$\sqrt{7 + 24i}$$

9. (a) Find the mean deviation from mean of the following data : $7\frac{1}{2}$

Class	Frequency
01-10	5
10-20	8
20-30	7
30-40	12
40-50	28
50-60	20
60-70	10
70-80	10

(b) Find the variance and the standard deviation of the following data : $7\frac{1}{2}$

Class	Frequency
10-20	3
20-30	4
30-40	7
40-50	7
50-60	15
60-70	6
70-80	6
80-90	9
90-100	3