



**Directorate of Open and Distance Learning
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NOTIFICATION

**for
BCA 1st Semester Learners regarding submission of Home Assignments**

This is for information to all Study Centers and Learners under DODL, DU that the student of BCA 1st Semester shall have to submit one Home Assignment in each course (paper). Each assignment carries 30 marks. The questions for the Home Assignments are enclosed herewith. At the time of submitting the assignments, please note the following:

- * Write your assignment in A4 size paper neatly, with your own hand- writing on one side of the paper. You may also submit a computer printed copy of your assignments with your signature at the end.
- * Stick to the word limit mentioned in the questions.
- * Keep a margin of about 5 cm on the left side of the paper.
- * You have to submit the assignments directly in the Study Centre wherein you have enrolled yourself.
- * The assignments for a course (paper) should be tagged / stapled together to make a booklet, i.e. a separate booklet for each course (paper).
- * Keep a duplicate or photo copy of the assignment with you (compulsory).
- * The last date of submitting the Assignment is 20th March, 2020 (excluding Sundays)
- * The cover page of your booklet should contain the following Label :

Home Assignment
Name of Study Centre _____
Roll No. _____
Name _____
Programme : BCA
Class : 1st Semester
Course (Paper) : _____
Session : 2019 -2020
D.U. Registration No. : (If received) _____ of _____
Date of Submission : _____

Sincerely Yours

Sd/-
(Dr. Deba Pallab Rajkhowa)
Director
DODL, D.U

ASSIGNMENT
Computer Fundamentals
BCA -101

Total marks : 30

1. Write short notes on the following: 5X2=10
 - a) Software and its type
 - b) Low - level and High-level languages.
2. Explain some of the output devices used with computer systems. 5
3. Write down the differences between System Software and Application Software. 5
4. What is an Operating System? What are the main functions of an Operating System? 5
5. Describe the different categories of computer based on their memory size and speed. 5

ASSIGNMENT
Mathematics-I
BCA -102

Total marks : 30

Each question carries 5 marks

5X6=30

1. Show that contra-positive statements are equivalent
2. Construct a truth table for the following compound proposition:
 $(P \vee Q) \wedge (P \vee R)$
3. Write the following complex number in polar form $-1 + i\sqrt{3}$
4. Solve the equation $x^7 = 1$ by De Moivre's theorem.
5. In how many ways the letters of the word COMBINE and MATHEMATICS can be arranged .
6. Out of 10 watches , 4 are defective. Three watches are selected at random. Find the probability that (i) no watch is defective (ii) one watch is defective

ASSIGNMENT
Business Communication
BCA -103

Total marks : 30

Each question carries 5 marks.(Answer any six)

1. What is communication? Distinguish between verbal communication and non-verbal communication.
2. Discuss the various barriers to an effective communication.
3. What is attitude? What role does it play in communication?
4. Discuss briefly the various functions and principles of business correspondence.
5. What is group discussion? How would you prepare for a group discussion?
6. What do you mean by the format of a letter? Show it with a specimen format of any one type of business letter.
7. What is report? What is its need in a business organization?
8. Prepare your resume for a job in an effective manner.

ASSIGNMENT
Grooming
BCA -104

Total marks : 30

Each question carries 5 marks.(Answer any six)

1. Discuss the various stages of a child's personality development.
2. What is personality ? How is intelligence and personality interrelated?
3. What is evolution theory ? How does physical appearance influence personality ?
4. How will you improve your public speaking and presentation writing skill ?
5. Write down the five major factors of heritability.
6. Define leadership ? Discuss three factors of leadership.
7. What is self assessment? Discuss.

ASSIGNMENT
Digital Design
BCA -105

Total marks : 30

Each question carries 5 marks.(Answer any six)

1. Prove the following Boolean identity

$$XY+YZ+\bar{Y}Z=XY+Z$$

2. Explain different number systems.
3. Obtain the simplified form of the following Boolean expression using K-map. Draw the logic circuit.

$$F(A,B,C,D) = \sum(0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15)$$

4. Explain the working of a J-K flip flop with the help of truth table and diagram
5. What are the major application of multiplexers?
6. What are decoders? Draw and explain the working of a 3 to 8 line decoder.
7. Differentiate between S-R and J-K flip-flops.

ASSIGNMENT
Programming in C (Practical)
BCA -106

Total marks : 30

LABORATORY ASSIGNMENT

Each question carries 5 marks.(Answer any six)

1. Write a program in C to find whether a number is odd or even
2. Write a program in C to find a factorial of a number. (Use function)
3. Write a program in C to print first 10 natural numbers and their sum.
4. Write a program in C to find the maximum, minimum value in an array.

5. Write a program in C to sort elements in an array.(Use Bubble sort)
6. Write a program in C to find whether a given no. is prime or not.
7. Write a program in C to display series and find sum of $1+3+5+\dots+n$.
8. Write a program in C to add two matrices.