

**Bachelors in Computer Application
(BCA)
Semester 1
Bachelor in Science (IT)
Semester 1**

ASSIGNMENT BOOKLET [2]

Assignments for subjects BSIT/BSBC 101, BSIT/BSBC 102,
BSIT/BSBC 103, BSIT/BSBC 104, HVPE 101
(for Session January 2015)

Directorate of Distance Education
Punjab Technical University, Jalandhar

Dear Student

The assignment is the important component of our evaluation system and your internal assessment will be based on the assignments. The objective of such assignments is to enable you to comprehend the subject knowledge. The assignments are purposely designed on the lines of examination pattern so as to prepare you for the final examinations. In the entire semester, you will have to attempt **TWO** assignments. Assignment 1 will cover the topics from Unit 1 and Unit 2. Assignment 2 will cover topics from Unit 3 and Unit 4. All assignments are tutor marked assignments and carry 50 marks each. In internal assessment assignment 1 and assignment 2 shall carry the weightage of 20 marks respectively.

As the assignment is integral part of your internal assessment, it is compulsory to attempt the assignment. Therefore, plan well for the attempt of your assignments. Before attempting the assignment, please read **IMPORTANT INSTRUCTIONS** and all questions carefully and then arrange your answers in a rational sequence.

Dear student, please note following points regarding attempt of assignments:

- Assignments should be submitted in your own handwriting.
- Use A4 size plain papers for assignments.
- Carefully follow the instructions and ensure that you have attempted all questions.
- Answers should be correct and neatly written.
- Submit assignment of each subject in a separate file.
- Each assignment should consist of a title page containing the details of the student and subject (Template of title page is attached as **ANNEXURE**. Take print out of that annexure on A4 size page and fill it in your handwriting for each subject.)

Instructions for students regarding Submission of Assignments:

- Before submitting the assignment, please retain one copy of your assignment with you and take receipt of the assignment from your study centre.
- Last date of submitting 2nd Assignment of all subjects is 30th April, 2015.
- Please tag a self addressed A4 size envelope with assignments of all subjects separately.

Work Hard and Perform Well!

COMMUNICATION- 1

BSIT/BSBC -101

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

- a. Discuss briefly the role of body language in an effective presentation.
- b. Define an extempore speech.
- c. Define intensive reading.
- d. Distinguish between skimming and scanning.
- e. State the importance of writing skills in business communication.
- f. Define tender.
- g. State the functions of business letters.
- h. Discuss briefly the process of listening.
- i. What are the psychological barriers to listening?
- j. State the limitations of non verbal communication.

SECTION-B

All questions are compulsory and each question carries 10 marks.

2. *Listening requires more intelligence than speaking.* In the light of this Turkish proverb, discuss in detail the components of effective listening.
3. Discuss in detail the various methods of reading that are employed by readers.
4. Assuming yourself to be the Head, Software Operations, prepare an appreciation letter for Mr. Ajay Madhok, who is working in your company as a Software Engineer. Mr. Ajay has made significant contribution in the execution of a prestigious software project with your company. Develop all the necessary details.

PROGRAMMING IN C

BSIT/BSBC-102

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

QUES 1.

- a. Differentiate between single dimensional array and multi-dimensional array.
- b. What do you mean by the term pointer.
- c. Give one example showing declaration of structure.
- d. Explain nested structures with example.
- e. Write down the various types of files used in C.
- f. Define macros with suitable example.
- g. Explain conditional preprocessors.
- h. Differentiate between address operators and pointers.
- i. Define matrices giving suitable example.
- j. Give string handling functions with example.

SECTION: B

All questions are compulsory and each question carries 10 marks.

QUES 2. Explain in detail how a data file is created, opened ,closed with suitable examples in C.

QUES 3. Write a program using array. Also initialize the structure of arrays.

QUES 4. Explain in detail the concept of pointers. Also explain Declaring and Initializing of pointers using examples.

MATHEMATICS-1

BSIT/BSBC-103

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. Differentiate between directed and undirected graph.
 - b. What is a spanning tree?
 - c. Differentiate between graph and tree.
 - d. Define recursion.
 - e. Define even function with an example.
 - f. State Binomial theorem.
 - g. Define chromatic number of a graph G.
 - h. Solve recurrence relation $a_r + a_{r-1} + a_{r-2} = 0$
 - i. Give an example of a graph that has an Euler circuit and is also an Hamilton circuit.
 - j. Find the value of $(10.1)^5$ using binomial theorem.

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. Prove that the following are equivalent for a graph G:
 - a. G is 2-colorable.
 - b. G is bipartite
 - c. Every cycle of G has even length
3.
 - a. Define minimal spanning tree. Give its two basic properties.
 - b. How many binary trees are possible on 3 vertices?
4.
 - a. Find an explicit formulae for the recurrence relation:
 $a_0 = 1; a_n = a_{n-1} + 2$
 - b. How many binary trees are possible on 3 vertices?

INFORMATION TECHNOLOGY

BSIT/BSBC -104

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

QUES 1.

- a. Differentiate between batch and multiprogramming.
- b. Give examples showing customizing of windows.
- c. Explain the types of windows .
- d. Define proxy servers.
- e. Differentiate between word processing and spreadsheets.
- f. Define the term physical communication media.
- g. What do you mean by the term anatomy of windows.
- h. Differentiate between online and real time operating system.
- i. Give examples of security management tools.
- j. What do you mean by the term distributed operating system.

SECTION: B

All questions are compulsory and each question carries 10 marks.

QUES 2. Explain Internet and its Applications in detail.

QUES 3. Explain in detail Computer Network and Communication.

QUES 4. Explain in detail Presentation Graphics Software with example.

HVPE-101

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.

fill in the blanks

- a** The four levels of human living are Self, _____ Society and Nature (Existence).
- b** Needs of the Body are temporary while the needs of the Self are _____.
- c** Respect is right _____.
- d** There is mutual _____ among the four orders of nature.
- e** Professional _____ is the implication of right understanding in profession.

true/ false

- f** Value education cannot be rational, and has to be based on assumptions.
- g** The Self is an instrument of the Body.
- h** Prosperity in the family is one of the comprehensive human goals.
- i** Nature has self - regulation.
- j** Human Conduct is definite.

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. What do you understand by self - exploration ?
Where does it take place - Self or Body ?
3. 'The need for physical facilities is temporary' -
explain the meaning of this statement with any
two examples.
4. What is the difference between respect and
disrespect ? Which of the two is naturally
acceptable to you ?

ANNEXURE

Title Page of Assignment

1	Name of the Student	
2	Registration Number	
3	Assignment Number (1/2)	
4	Subject Name	
5	Subject Code	
6	Date of Submission	

Signature of Student

Signature of Coordinator

FOR OFFICE USE

Total Marks obtained: _____

Evaluated by: _____

(Signature of evaluator)