

School of Distance Education, University of Kerala

BCA/BSc - CS

Semester 2

EN1211.4 WRITING AND PRESENTATION SKILLS

Assignment Questions

I. Answer all the questions

- 1) Write a short note on the different phases in the writing process?
- 2) Prepare a resume for applying for the post of Web Designer?
- 3) Write a short note on the role of audio- visual aids while making a presentation?
- 4) You have been invited to a party by your friend. Prepare an e-mail informing him of your inability to attend the party.
- 5) Write a letter to your friend working in Delhi asking him/her to send you some money as you are going through a very difficult situation.

MM1231.9 MATHEMATICS II

Assignment Questions

1. On the set of all integers, define the relation R by aRb if and only if $ab > 0$. Is R an equivalence relation? Justify.
2. Find the truth table for the proposition $\neg(p \wedge \neg q)$
3. Negate the following sentences:
 - (i) For all positive integers n we have $n+2 > 8$.
 - (ii) There exists a college student who is 60 years old
4. Show that $\neg(p \vee q) \vee (\neg p \wedge q)$ is logically equivalent to $\neg p$.
5. Determine the validity of the argument: $p \rightarrow q, \neg q \vdash \neg p$.
6. Is it possible to draw a 3-regular graph on 5 vertices? Discuss.
7. Define adjacency matrix of a simple graph. Write any three properties of the adjacency matrix.
8. Draw the complete bipartite graph $K_{4,5}$. How many edges are there in $K_{r,s}$?
9. State and prove the First Theorem of Graph Theory.
10. Determine the contrapositive of the following statements
 - (i) If John is a poet, then he is poor
 - (ii) Only if Marc studies will he pass the test.

Semester 2

CP/CS1241 ENVIRONMENTAL STUDIES

Assignment Questions

1.a)What are the different types of pollution?

b)How can pollution be controlled through environmental studies?

2.Explain deforestation and upforestation.

3.a)What is biodiversity?

b)Explain biodiversity hotspots of India.

4.What is Chipko Movement.

5.What do you understand by agricultural pollution?

8.Write short notes on a) outdoor recreation?

b)ecosystem

c)biosphere

OBJECT ORIENTED PROGRAMMING (CS1242/CP 1242)

- 1. Write an inline function to obtain largest of three numbers.**
- 2. Define a class to represent a bank account. It contains,**
Data Members:
Name of the depositor
Account Number
Type of account
Balance
Member Functions:
To assign initial values
To deposit an amount
To withdraw an amount < amount available
Display the name and balance.
- 3. To write a C++ program to display the student details using class and array of object.**
- 4. Write a C++ program to add two complex numbers.**
 - i) The class Complex contains three constructors.**
 - a) One with no parameter. (Used for the object for storing result.)**
 - b) With one parameter(Same value for real and imaginary part)**
 - c) With two parameters.**
 - and**
 - ii) Two friend functions**
 - a) One to add two complex number by taking two reference variables of class complex and returning another reference.**
 - b) To display the result.**
- 4. Add two complex number by overloading + operator**
 - a) Using Member function.**
 - b) Using Friend Function.**
- 5. Class student contains roll number, name and course as data member and Input student and display student as member function. A derived class exam is created from the class student with publicly inherited. The derived class contains mark1, mark2, mark3 as marks of three subjects and input marks and display result as member function. Create an array of object of the exam class and display the result of 5 students.**

Semester 2
CP1243 DATA STRUCTURES

Assignment Questions

- 1. Write an algorithm to convert infix to prefix.**
- 2. Write an algorithm to check validity of expressions.**
- 3. Write an algorithm to delete duplicate elements in a singly linked list.**
- 4. How to implement queue using stacks.**
- 5. Convert the following expressions from infix to postfix**

a)
$$\frac{((A + B) * (C - E))}{(F + G)}$$

b)
$$1 - 2^{3^3} - (4 + 5 * 6) * 7$$

- 6. Explain what is static stack and dynamic stack?**

- 7. Conversion of infix to prefix**

a)
$$(A + B^C) * D + E^5$$

b)
$$((A + B) * (C + D) \therefore (E - F) + G)$$

- 8. What do you know about the data structure called tree?**

- 9. Write an algorithm for sorting a linked list.**

- 10. Write an algorithm for reversal of a linked list.**