Assignment Topics

Second SemesterB.Sc.CS/BCA(2019 Admission)

WRITING AND PRESENTATION SKILLS (EN1211.4)

1. What is brainstorming?

2. What is Netiquette?

3. Prepare a dialogue on the following topic in about 80 words.

4. Strangers in a train compartment from Kollam to New Delhi,both to attend job interviews.

5. How are survey questions to be made effective?

6. Assuming that you are the principal of a college,write a letter to a renowned   computer firm asking the details of computers(price,discount etc) for the college computer lab.

MATHEMATICS II (MM 1231.9/1231.10)

1. Prove that $\big((p \to q) \wedge (q \to r)\big) \to (p \to r)$ is a tautology.

2. Show that the set of all positive rational numbers form a group under the composition defined by$a \; x \; b = \frac{ab}{3}$.

3. Define:

    a) Monoid

    b) Semigroup.

    c) Group with example.

4. Show that

    a) The number of vertices of odd degree in a graph is always even.

    b) The maximum number of edges in a simple graph with n vertices is$\frac{n(n-1)}{2}$.

    c) $f(x) = \frac{x}{2}$ is partially recursive.

5. Find the derivative of $\sin^{-1} \sqrt{\frac{1-X}{1+X}}$.

6. Find the Laplace transform of

    a) L(t).

    b) $L(e^{at})$.

7. Prove that

a) A -(B U C) = (A- B)∩ (A-C)

b) A - (B ∩C) = (A- B) U (A - C).

8. Solve the differential equation $(1+x)(1+y^2).dx + (1+y)(1+x^2)dy=0$

ENVIRONMENTAL STUDIES(CS 1221/CP 1241)

1. Explain

   a) Shola grassland ecosystem.

   b) Participatory project management.

2. "What are Biodiversity Hot Spots"?

3. Explain the significance of wetland ecosystems.

4. Write abrief note on point and non point sources of water pollution.

5. Give a brief account on ecological succession.

OBJECT ORIENTED PROGRAMMING. (CS 1242/CP 1242)

1. Differentiate between procedural and object oriented programming. Explain any 5 concepts of OOP.

2. Explain following with example.

   a) Friend function

   b) Constructors

   c) Access modifiers

3. What is inheritance? Explain types of inheritance with example.

4. Create three classes with names Shape, Rectangle and Circle and make use of the functions getdata(), printdata(), and area(). To find the area of circle and rectangle, which type of inheritance is suitable? Why? Explain?

5. Explain exception handling in detail with example.

DATA STRUCTURES(CS 1241/CP 1243)

1. What is hashing?Explain various hashing functions with example.

2. Discuss the structure of the direct file organization.

3. Write a C program to sort the elements in a linked list.

4. What is indexed sequential file?Explain the structure in detail.

5. Discuss the programming methodologies in detail?

6. What is exchange sort?

****