

Programme : Bachelors of Computer Applications (BCA)
Semester : I

Attempt any TWO questions from the following:

Subject Code : 1.1 Subject : Fundamentals of Information Technology

Q1	What is data processing? Differentiate between data and information. Which is more useful to people? Why?
Q2	What is an input interface? How does it differ from an output interface?
Q3	Write short notes on the following: 1. Index sequential file 2. Mouse
Q4	Draw a neat and labeled diagram of computer. Also explain the functioning
Q5	Explain the structure of hard disk with suitable diagram
Q6	Explain high level programming language.
Q7	Write in brief about printers.
Q8	Explain multiprogramming operating system
Q9	Explain various functions of operating system
Q10	Write short notes on the following: 1. characteristics of first generation computers 2. File access methods

Subject Code : 1.2 Subject : Algorithm and Programme Design

Q1	Explain the data types in C with example of each one.
Q2	For given X and given n, draw a flowchart and algorithm to compute $X^{n/n}$
Q3	Draw a flowchart and an algorithm to compute the sum of squares of n.
Q4	Draw a flowchart and design an algorithm to generate Lucas sequence. 1 3 4 7 11 18
Q5	Design an algorithm that counts the number of digits in an integer
Q6	Write a note on Sorting, Selection and Insertion.
Q7	Write short notes on the following: a) Array b) Functions
Q8	a.) What is sorting and searching. What are different methods of sorting and Searching? Explain in detail. b.) Explain Linear search and flowchart for linear search.
Q9	a.) Describe the problem of evaluating a polynomial. Describe an algorithm to Solve the problem. What is $P(x) = 3x^2 + 4x + 6$?

	b.) Explain the difference between the three kinds of iteration structures in C
Q10	Write a algorithm to convert decimal number to binary number

Subject Code : 1.3 Subject : Office Automation

Q1	What are the objects of a Microsoft Access database? Explain each of them with examples
Q2	Describe Internet connectivity.
Q3	What is the use of the Help menu in MS Word?
Q4	What do you know about Wizard? How can you create a report using wizard?
Q5	Explain the Auto Formatting option in detail
Q6	Describe vi editor with suitable examples
Q7	Explain the various menus available in the Start menu.
Q8	Explain different types of file organization.
Q9	What is the need of network? Explain its benefits.
Q10	Explain multiprocessing and multitasking.

Subject Code : 1.4 Subject : Business Organisation and Systems

Q1	Explain the factors determining the choice of the form of business organization.
Q2	Write a short note on the following a) Merits of One Man control as a form of business b) Wholesale Trade
Q3	Discuss the Indian business scenario during the pre – colonial and colonial era.
Q4	Write a short note on the following a) Trade Commerce and Industry b) Agriculture Sector in economy
Q5	Write a short note on the following a) Job related attitude b) Organizational politics
Q6	Write a short note on the following a) Franchising b) Transport sector in economy
Q7	Write a short note on the following a) Organizational Culture b) Process of perception
Q8	What are the different forms of business? Discuss advantages of sole proprietorship firm.
Q9	What is business? Describe characteristics of business.
Q10	What are Small Scale Industries? Discuss the problems of SSI.

Subject Code : 1.5 Subject : Environmental Studies

- Q1** Define environmental pollution and its various sources in detail.
- Q2** Write notes on the following:
a) Soil Pollution
b) Nuclear Hazards
- Q3** a.) Describe the role of Information technology in Environment and Human health.
b.) Describe the various causes for degradation of land resources.
- Q4** Write notes on the following:
a) Disaster Management
b) Green House Gases
- Q5** Define ecosystem with its structure in detail.
- Q6** What is biodiversity and its value
- Q7** Write about Natural resources with its various type in detail.
- Q8** Discuss on Global Biodiversity and threats of biodiversity
- Q9** Describe renewable and non-renewable resources give examples of each.
- Q10** Write a note highlighting the importance of Environment Science and the need for public awareness on this project

Subject Code : 1.6 Subject : Mathematical Foundations

- Q1** Define the terms:
• Composition of two functions
• Difference of two sets
- Q2** A person has fourteen friends of whom 9 are relatives. He wants to invite 8 members in a party. In how many ways can he invite them so that exactly 5 relatives are included?
- Q3** How many three digit numbers can be formed using the digits 0, 1, 2, 3, 4 if repetition of digits is not allowed?
- Q4** What are exponential growth and decay?
- Q5** Show that if $a_1 \neq b_1$, $a_1 \neq a_2$ and $\{a_1, b_1\} = \{a_1, b_1\}$ then $b_1 = b_1$.
- Q6** Define the terms:
• Complement of a set
• Union of two sets
- Q7** The first three terms in the expansion of a binomial are 32,240,720, respectively find it.
- Q8** The first three terms in the expansion of a binomial are 1, 10, 40. Find it.
- Q9** Explain
a) Ordered and unordered partitions
b) Congruence Relationship
c) One-to One function
d) Algorithm
- Q10** Two fair coins are tossed. Find the probability of
a) Getting total score as multiple of 3
b) Getting total score as a prime number