

VIDYA VIHAR COLLEGE

MAULANA MAZHARUL HAQUE ARABIC & PERSIAN UNIVERSITY, PATNA

COURSE : BCA

YEAR : II

INTERNAL ASSIGNMENT

Session : 2020 - 23

PAPER : IX

PROGRAMMING IN C++

[MAX MARKS : 20]

The question paper consists of **05** descriptive type questions. Each question is of **04 marks** (word limit 300 words). Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. Describe the major parts of a C++ Program.
2. How does an inline function differ from a preprocessor macro?
3. What is a friend function? What are the merits and demerits of using friend functions?
4. Can we have more than one constructor in a class? If yes, explain the need for such a situation.
5. Describe the syntax of multiple inheritance. When do we use such an inheritance?

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PAPER : X

SYSTEM ANALYSIS AND DESIGN

[MAX MARKS : 20]

The question paper consists of 05 descriptive type questions. Each question is of **04 marks** (word limit 300 words). Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. What are the main components of computer-based information system?
2. Why is it preferable to synthesize group support systems from existing components rather than building them from scratch?
3. Why is a life cycle needed for the development of information system?
4. Do you think DFDs are more appropriate to the subject, usage or system world?
5. Differentiate between Unit Testing and Program Testing.

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PAPER : XI

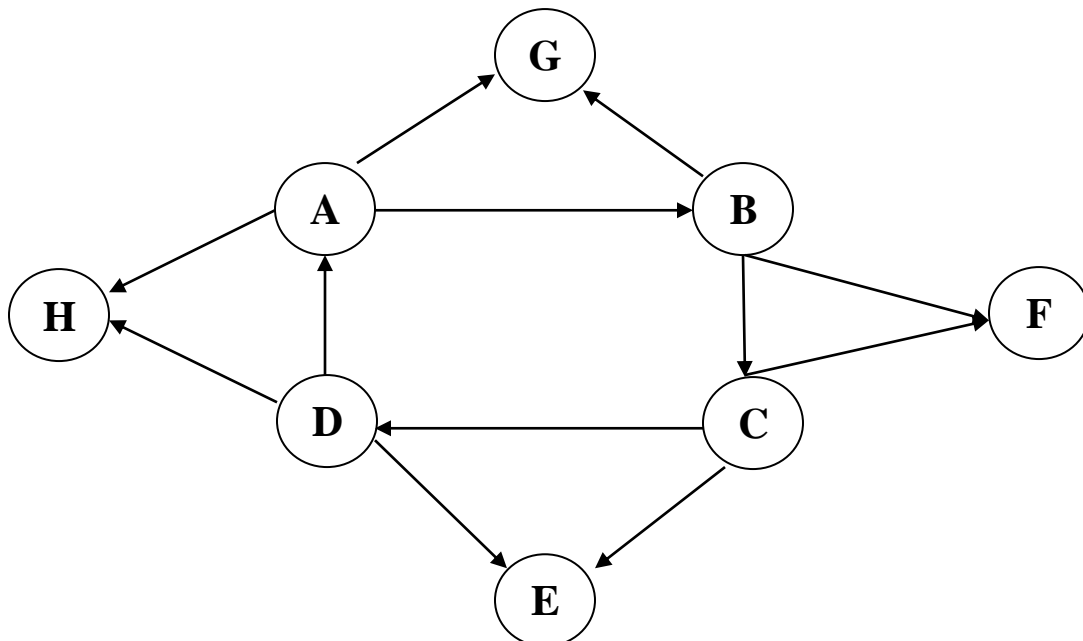
DATA STRUCTURES

[MAX MARKS : 20]

The question paper consists of **05** descriptive type questions. Each question is of **04 marks** (word limit 300 words). Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. Given a set of 100 numbers write an algorithm to find the total number of even and odd numbers in list. Also find their sum.
2. Write a recursive function to computer the square root of a number.
3. What is Circular link list? Write an algorithm for inserting a node at the front.
4. What is a binary tree? Write down different properties of a binary tree.
5. Find the depth of the graph G illustrated in fig.



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**PAPER : XIII DATA COMMUNICATION & COMPUTER
NETWORKS**

[MAX MARKS : 20]

The question paper consists of 05 descriptive type questions. Each question is of **04 marks** (word limit 300 words). Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 10]

1. Define constellation diagram and its role in analog transmission.
2. Which of the three multiplexing techniques is common for fiber optic links? Explain the reason.
3. Compare and contrast a traditional cable network with a hybrid fiber-coaxial network.
4. Explain the concept of IP protocols and addresses, subnets and Internet Control Protocols for the network layer in the Internet.
5. What is the difference between a bus backbone and a star backbone?

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PAPER : XIV

RDBMS

[MAX MARKS : 20]

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Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. What is referential integrity? Explain with suitable examples.
2. Discuss the various types of Data Models in brief.
3. Explain BCNF with the help of an example.
4. What are the key and non-key attributes? What is the relationship between entities and attributes?
5. Define :-
 - (i) Data model
 - (ii) Data integrity
 - (iii) Data constraints
 - (iv) Schema

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PAPER : XV

VISUAL BASIC . NET

[MAX MARKS : 20]

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Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. What is the difference between console application and windows application?
2. Write the program to accept a number and display its prime number or not?
3. What is exception handling? How can we use the exception handling in a program?
4. What do you understand by Text Box control? What are its features and uses?
5. What do you mean by Common Dialog Control? Please state each of the names of Dialog Box and its purpose.