

**2012**

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**Course : B.C.A (3<sup>RD</sup> YEAR)**

**Paper : G S**

**Time : 3 hours**

**Full Marks : 100**

**Candidates are required to give their answers in their own words as far as practicable.**

**The questions are of equal value.**

**Answer any Five Question, selecting at least two questions from each group**

**Group\_ A**

- 1. “Mutiny of 1857 paved the way towards attainment of Indian independence ” Discuss.**
- 2. “Battle against corruption has assumed greater significance among the Indians. ” Discuss this statement in the light of Jan Lokpal Bill.**
- 3. Fundamental rights and fundamental duties mentioned in Indian constitution are complementary to each other Justify.**

4. **Mention the importance of various resources of Indian economy. Also mention the threat underlying the natural resources.**
5. **Discuss the role of United Nation and its major agencies in making the world better.**

**Group \_ B**

6. **What are the major pollutant which are found in air, water and soil ? How these can be controlled ?**
7. **Elaborate various types of energy sources along with its importance.**
8. **What do you understand by organic and inorganic fertilizers ? Which one has assumed more-importance and why ?**
9. **What is an artificial satellites ? How is it useful for mankind ?**
10. **Write short notes on any two of the following :**
  - (a) **Fermentation**
  - (b) **Atomic structure**
  - (c) **Radiation**
  - (d) **Viruses and Bacteria**

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**Paper : 5**

**Time : 3 hours**

**Full Marks : 100**

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**The questions are of equal value.**

**Answer any Five questions, in which question no. 1 is compulsory.**

**1. Choose the correct answer of the following :**

**(a) MDI means:**

- (i) Multiple Data Interaction**
- (ii) Multiple Document Interface**
- (iii) Maximum Document Interface**
- (iv) None of these**

**continue**

**(b) Visual basic is a :**

- (i) High Level Language**
- (ii) Machine Language**
- (iii) Assembly Language**
- (iv) None of these**

**(c) Menus can be created quickly by using the :**

- (i) Menu editor utility**
- (ii) Common dialog Control**
- (iii) Text Box**
- (iv) None of these**

**(d) In Visual Basic the storage Size of data type :**

- (i) 1 byte**
- (ii) 8 byte**
- (iii) 2 byte**
- (iv) 4 byte**

**(e) For a maximized windows the windows state**

**Property is set to be :**

**(i) 0**

**(ii) 2**

**(iii) 3**

**(iv) 1**

**(f) Entity type or entity set is a :**

**(i) Group of similar object**

**(ii) Group of dissimilar object**

**(iii) Set of objects**

**(iv) None of these**

**(g) RDBMS stands for:**

**(i) Row database management system**

**(ii) Relational database management system**

**(iii) Both (i) & (ii)**

**(iv) None of these**

**(h) Oracle is a:**

**(i) Application Software.**

**(ii) System Software .**

**continue**



- (b) Describe the function of various relational and logical operators available in VB.
- 4.
  - (a) What are the different types of scrollbars ? Write a program to demonstrate the use of scrollbars in VB.
  - (b) Explain the project explorer and properties windows in VB with example.
- 5.
  - (a) Explain designing the user interface, creating from the code modules.
  - (b) What are the running application, programming an application and grouping controls.
- 6.
  - (a) Explain procedure, general procedure and event procedure.
  - (b) Explain various type of component in VB.
- 7.
  - (a) Explain DBMS. What is advantage and disadvantage of DBMS.
  - (b) Explain Network and Relational Data Model with example.

continue

8. (a) Explain the entity Relationship Charts with help of example.
- (b) Explain Data manipulation and Data Definition Language with example.
9. (a) What is RDBMS ? Explain with example.
- (b) Explain data control language and Schema with example.
10. (a) Explain ORACLE and structured Query language.
- (b) Explain Query by example (QBE) and Security Consideration.

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**Paper : 6**

**Time : 3 hours**

**Full Marks : 100**

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**The questions are of equal value.**

**Answer any Five questions, in which question no. 1 is compulsory.**

**2. Choose the correct answer of the following :**

**(k) Which statement can only work for equality comparisons :**

- (i) if**
- (ii) switch**
- (iii) for**
- (iv) while**

**continue**

- (l) A sequence of characters enclosed by double quotes are known as :
- (i) Character literals
  - (ii) String constants
  - (iii) Character constants
  - (iv) String literals
- (m) Identity the operator that cannot be overloaded in C++ :
- (i) ? :
  - (ii) +
  - (iii) New
  - (iv) None of these
- (n) Which of the following represent correct from the function  
Prototype ?
- (i) float volume (int x, int y)
  - (ii) float volume (int x, y)
  - (iii) Volume (int x, int y)
  - (iv) float volume (int, float)

continue

- (o) **The friend functions are used in situation where,**
- (i) **We want to exchange data between classes**
  - (ii) **We want to have access to unrelated classes**
  - (iii) **Dynamic binding is required**
  - (iv) **We want to created versatile overloaded.**
- (p) **An exception is caused by :**
- (i) **A hardware problem**
  - (ii) **A problem in the operating system**
  - (iii) **A syntax error**
  - (iv) **A run time error**
- (q) **Which of the following cannot be passed to a function In C++ ?**
- (i) **Reference variable**
  - (ii) **Arrays**
  - (iii) **Class objects**
  - (iv) **Header files**
- (r) **Which of the following are the wrapper classes ?**
- (i) **Random**
  - (ii) **Byte**
- continue**

- (iii) Integer**
  - (iv) Short**
  - (s) Which of the following methods belong to the string class ?**
    - (v) Length ( )**
    - (vi) Compare to ( )**
    - (vii) Equals**
    - (viii) None of them**
  - (t) Data input is :**
    - (i) An abstract class defined in Java**
    - (ii) A class we can use to read primitive data type**
    - (iii) An interface that defines methods to open files**
    - (iv) An interface that defines methods to read**  
**Primitive data types**
- 2. Give an overview of the object oriented programming paradigm. Specify those features of OOP that makes this approach useful in software development.**

3. **What do you mean by function overloading ? point out the difference between overloading and over riding. Explain with examples.**
4. **Explain with example static data member and static member function in C++.**
5. **Explain the term inheritance and its types. Also explain with example why we use virtual class.**
6. **What do you mean by “streams” in C++ environment? How are they used ?**
7. **What is an exception ? How exception handling mechanism can be used for debugging a program.**
8. **What is an applet ? How do applets differ from application programs. Why do applet classes need to be declared as public?**
9. **How can we handle string in java ? Write an application program in Java to check whether the two input strings are equal.**
10. **Write notes on the following :**
  - (a) **Virtual function**
  - (b) **final ( )**
  - (c) **friend function**