XEV (H-3) – BCA (5)

2019

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* questions, in which

Q. No. **1** is compulsory.

1. (a) Which three of the following are implicit cursor
        attributes ?
        (i)   % found
        (ii) % too_many_rows
        (iii) % not found
        (iv) % rowcount

    (b) Select invalid variable types
        (i)   CHAR
        (ii) VARCHAR 1
        (iii) VARCHAR 2
        (iv) INTEGER

    (c) If left out, which of the following would cause
        an infinite loop to occur in a simple loop ?
        (i)   LOOP
        (ii) END LOOP

(iii) IF-THEN

(iv) EXIT

(d) DBMS manages the interaction between _____ and databse.

    (i) Users

    (ii) Clients

    (iii) End Users

    (iv) Stake Holders

(e) IMS stands for ?

    (i) Information Mastering System

    (ii) Instruction Management System

    (iii) Instruction Manipulating System

    (iv) Information Management System

(f) A characteristic of an entity.

    (i) Relation

    (ii) Attribute

    (iii) Parameter

    (iv) Constraint

(g) When the user clicks a button, _____ is triggered.

    (i) An event

    (ii) A method

    (iii) A setting

    (iv) A property

(h) In _____ window we can write code.

    (i) Immedicate window

    (ii) Locals window

    (iii) Code editor window

    (iv) None of these

(i)   The form module has file extension _____.
  (i)   .frm
  (ii) .frb
  (iii) .fru
  (iv) .fra

(j)   The default datatype for Visual Basic is
      _____.

  (i)   Integer
  (ii) Boolean
  (iii) Variant
  (iv) String

2. (a) What is SQL (Structured Query Language) ?
         What is Data ?

    (b) What is BCNF and 4NF ? Explain with example.

3. (a) Write a PL/SQL code to find the prime number
         of a given number by using while loop.

    (b) What is the difference between SQL and No
         SQL ?

4. (a) What is a Table and explain its characteristics ?

    (b) Explain DCL and DML.

5. (a) What is DBMS ? Explain advantages and
         disadvantages of DBMS.

    (b) Explain Entity Relationship Model and Object
         Oriented Model.

6. (a) What are the limitations of using the graphics controls in VB ?

   (b) Explain ActiveX controls.

7. Explain the following :

   (a) Variables

   (b) Constants

   (c) Data Type

   (d) Scope of Variable

8. (a) Explain different types of looping statements using suitable examples.

   (b) What is the difference between Image and Picture Box Controls ?

9. (a) What are the advantages of using control arrays in VB ?

   (b) Write a VB program to find the even/odd of a given number by using procedure.

10. Write short notes on the following :

    (a) Grouping Controls

    (b) Aligning

    (c) Events

    (d) Methods

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XEV (H-3) – BCA (6)

2019

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

The questions are of equal value.

Answer any five questions, in which Q. No. 1 is compulsory.

1. Choose the correct answer of the following :
    (a) C++ was originally developed by :
       (i) Clocksin and Mellish
       (ii) Donald E. Knuth
       (iii) Sir Richard Hadlee
       (iv) Bjame Stroustrup

    (b) Cfront :
       (i) is the front end of a C compiler
       (ii) is the pre-processor of a C compiler
       (iii) is a tool that translates a C++ code to its equivalent C code
       (iv) none of the above

133/15/21/2 (1) (Turn over)

(c) Which of the following are procedural languages ?

    (i)   Pascal

    (ii)   Smalltalk

    (iii) C

    (iv) Both (a) and (c)

(d) Reusability is a desirable feature of a language as it :

    (i)   Decreases the testing time

    (ii)   Lowers the maintenance cost

    (iii) Reduces the compilation time

    (iv) Both (a) and (b)

(e) Choose the correct remarks :

    (i)   C++ allows any operator to be overloaded

    (ii)   Some of the existing operators cannot be overloaded

    (iii) Operator precedence cannot be changed

    (iv) All of the above

(f) Overloading is otherwise called as :

    (i)   Virtual polymorphism

    (ii)   Transient polymorphism

    (iii) Pseudo polymorphism

    (iv) Ad-hoc polymorphism

(g) Which of the following operators cannot be overloaded ?

    (i) >>

    (ii) ?:

    (iii) .

    (iv) Both (a) and (c)

(h) C++ encourages structuring. A software as a collection of components that are :

    (i) Highly cohesive and loosely coupled

    (ii) Not highly cohesive but loosely coupled

    (iii) Highly cohesive and tightly coupled

    (iv) Not highly cohesive but tightly coupled

(i) Cout stands for :

    (i) class output

    (ii) character output

    (iii) console output

    (iv) call output

(j) The fields in a structure of a C program are by default :

    (i) Protected

    (ii) Public

    (iii) Private

    (iv) None of the above

2. Define Recursion. Write a program in C++ to find the factorial of a given number using Recursion.

3. What do you mean by overloading of a function ? When do we use this concept ?

4. Explain the following terms of OOP :
   (i) Polymorphism
   (ii) Inheritance
   (iii) Data Hiding
   (iv) Class Object

5. Describe the concept of call by value and call by reference with an example. Describe 'Try' and 'Catch' Block.

6. What is the importance of static members in C++ ? Explain with example.

7. Explain parameteized and copy constructor with suitable example. Write a program in C++ to overload unary minus operator using friend function.

8. Explain JDBC Architecture in detail.

9. Why Servlet are preferred over CGI ? Write a Servlet that prints sum of cube of the given number.

10. Write short notes on any **two** of the following :
    (a) Thread
    (b) Constructor
    (c) Applet
    (d) Two Dimensional String

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GS

XEV (H-3) — GS

2019

Time : 3 Hours

Full Marks : 100

Candidates are required to give their answers in their

own words as far as practicable.

The figures in the margin indicate full marks.

Answer any **five** *questions, selecting*

at least **two** *from each Group.*

Group - A

1. Write short notes on the following :   10×2 = 20

    (a)   Non-cooperation Movement

    (b)   Quit India Movement

    (c)   Blue Revolution

    (d)   Bihar Skill Development Mission

    (e)   Right to Equality

    (f)   Smart Cities Mission

    (g)   Mahalwari System of Revenue Settlement

    (h)   Ease of doing business

233/15/21/18   (1)   (Turn over)

(i) Udhyog Mitra

(j) Bihar flood issue

2. Why the name of the following persons was in the headlines of news recently ? 5 × 4 = 20

(a) Sri Fagu Chauhan

(b) Nirmala Sitharaman

(c) Urjit Patel

(d) Kulbhushan Jadhav

(e) Lalit Modi

3. Show your acquaintance with the following leaders of Modern India : 5× 4=20

(a) Lal Bahadur Shastri

(b) Subhash Chandra Bose

(c) B. P. Mandal

(d) Veer Kunwar Singh

(e) Morarji Desai

4. Differentiate between the following : 5×4 =20

(a) Longitude and Latitude

(b) Physical Geography and Human Geography

(c) Democracy and Dictatorship

233/15/21/18 (2) Contd.

(d)   World Bank and International Monetary Fund (IMF).

(e)   Hydro power and Thermo power

5.   Present a brief account of the following :   10×2 =20

(a)   Man ki Baat

(b)   Indo-China relation

(c)   One Nation-One Card

(d)   e-Governance

(e)   Prospects of Fisheries in Bihar

(f)   Environment Clearance

(g)   Agriculture pattern of Bihar

(h)   World Trade Organisation

(i)   Digital India Programme

(j)   Mineral Resource of Bihar

Group-B

6   Write short notes on the following :   5×4 =20

(a)   Deoxyribonucleic Acid (DNA)

(b)   Renewable sources of energy

(c)   Pesticide

(d)   Nuclear reaction

(e) Radioactive elements

7. Show your acquaintance with the following : 5×4 = 20

(a) Soil Pollution

(b) Chlorofluorocarbon (CFC)

(c) Food Preservatives

(d) Transistors

(e) Use of Satellites

8. Present brief description of the following : 5×4 =20

(a) Cancer

(b) Alzheimer's disease

(c) Maleria

(d) Immunization

(e) Ageing

9. What do you mean by Atomic Energy ? How it is generated ? Discuss its effect on society and environment. 20

10. Define the term 'Genetic Engineering'. Discuss the advantages and disadvantages of production of genetically modified crops. 20

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