[This question paper contains 6 printed pages.]

Sr. No. of Question Paper : 2280          GC-3          Your Roll No...............

Unique Paper Code         : 32345102

Name of the Paper         : Introduction to Programming

Name of the Course        : B.A. (H) / B.Com. (H) / B.Sc. (H) Generic Elective

Semester                  : I

Duration : 3 Hours                                    Maximum Marks : 75

## Instructions for Candidates

1.  Write your Roll No. on the top immediately on the receipt of this question paper.

2.  Question **1** is compulsory.

3.  Attempt any **five** questions out of **Q.2** to **Q.8.**

4.  Parts of a question must be answered together.

**Note:** **Please ignore any differences in font used for single and double quotes in the Question paper.**

1.  (a)  What is wrong with the following code/code segments :

    i)
    ```
    if (x == 0) cout <<  x << " = 0 " << endl;
    else cout <<  x << " != 0 " << endl;
    else cout <<  "No error";
    ```
                                                                        (1)

    ii)
    ```
    void fun ( )
    void fun ( ) {
       cout << " Hello ";
    }
    int main ( ) {
       fun ( ) ;
       return 0;
    }
    ```
                                                                        (1)

P.T.O.

```
iii) class One{
        int p;
     public:
        void input (int q)   { p = q ; }
        void output ( ) { cout << p ; }
     };
     int main ( ) {
        One b;
        b.p = 10;
        cout << b.p;
     }
```
                                                                    (1)

(b)  Write the outputs of the following code/code fragments :

```
i) int main() {
       int  j  = -7  / 2;
       int  k =  -7  % 2;
       cout   << j <<"    " << k;
   }
```
                                                                    (3)

```
ii) int n,   j = 100, k = 30;
    n = (j  %  k ?  k + 1 : k - 1);
    cout <<  " n = " <<  n <<  "  k = " <<  k  << endl;
```
                                                                    (2)

```
iii) int array[ ] = {0, 2, 4, 6, 7, 5, 3};
     int n, result = 0;
     for (n = 0; n < 8; n++)
        result += array[n];
     cout << result;
```
                                                                    (2)

```
iv) int main ( ) {
        int x = 10, y = 20;
        cout <<  x <<  "    " <<  y;
    fun (x, x);
        cout <<  x <<  "    " <<  y;
        return 0;
    }
    void fun (int x,  int y) {
        x = 20;
        y = 10;
        cout <<  x <<  "    " <<  y;
    }
```
(3)

(c) Write a C++ instruction to define a constant PI with value 3.141.　(1)

(d) Write a single C++ statement that prints "too many" if the variable count exceeds 100.　(1)

(e) Write logical expressions to represent each of the following conditions :

　　(i) whether *score* is greater than 80 but less than or equal to 90

　　(ii) whether *ch* is either lowercase or uppercase letter

　　(iii) whether n is between 0 and 7 but not even　(3)

(f) Give the syntax of using a header file in a C++ program.　(1)

(g) Write a function in C++ that takes a number as input and returns the sum of its digits.　(6)

2. (a) What would be the output of the following C++ code snippets ?

```
i)  int main( ) {
        int a = 5, b ;
        b =   -3  -   -  (- 3) ;
        cout  <<  "  b = " <<  b ;
        b  =  a++;
        cout << "  a = " << a << " b = "  <<b ;
    }
```
(3)

```
ii) char ch = 'g';
    switch (ch) {
        case 'g' :    cout << " Good ";
        case 'b' :    cout << " Bad ";
                      break;
        case 'e' :    cout << " Excellent ";
                      break;
        default :     cout << " Wrong choice";
    }
```
(2)

(b) Write a function *quad* to read the values of variables a, b and c and display the value of x, where $x = \sqrt{(b^2 - 4 * a * c)}$. Give output of the program for a = 3, b = 10, c = 3. (5)

3. Write C++ statements for the following tasks : (2×5)

(a) Write a for loop to display all perfect squares till 100.

(b) Write a prototype of a function *func* that accepts two arguments- an integer and a float; and returns a double.

(c) Create a structure *Employee* having elements *name, age* and *salary.*

(d) Swap two integers and print the new values.

(e) Create a class Day with data members day_of_me_week and month using appropriate data types and access specifiers.

4. (a) Write a function *GCD* that accepts two numbers as arguments and returns their greatest common divisor. (5)

(b) Write a program to read ten integers and search for an integer value given by the user. (5)

5. Create a class *Box* in C++ having three data members : *length, width* and *height*.     (2)

   Define a default constructor for this class.     (2)

   Define appropriate functions to take input and display the volume of the objects of this class.     (4)

   Create an object of this class and display its volume.     (2)

6. (a) Define a function *power* that accepts two integers x and y as arguments and returns $y^{th}$ power of x that is $x^y$.     (4)

   Define the function main() that calls the above function and displays results for the following values : x = 2, y = 3.     (2)

   (b) Write a program to generate and print first n terms of the Fibonacci Series.

   (1, 1, 2, 3, 5, ...)     (4)

7. (a) Which of the following array declarations are invalid ? Give reasons for invalidity.

       (i) float [+10];          (ii) char name[30];

       (iii) double[100];        (iv) int score[15];     (4)

   (b) Write a program to read a 3 × 3 matrix, find its transpose, and display the transpose.     (6)

8. (a) Write a C++ Program to display the following pattern on the output screen. The number of rows should be taken as an input from the user.

```
*  *  *  *  *

*  *  *  *

*  *  *

*  *

*
```
    (6)

(b) Find the error(s) in the following code. Give reasons for the error(s).

```
class A {
   private    :   int x;
   protected  :   int y;
   public     :   int z;
};
class B      :   public A {
   private    :   int i;
   protected  :   int j;
   public     :   int k;
};
int main ( ) {
   A  a ;
   B  b;
   a.x = 1;
   a.y = 2;
   a.z = 3;
   b.x = 5;
   b.y = 6;
   b.z = 7;
   b.i = 10;
   b.j = 20;
   b.k = 30;
}
```

(4)

This question paper contains **3** printed pages]

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Question No. **1** is compulsory.

Attempt any **5** questions from Question **2** to Question **8**.

Parts of a question must be answered together.

1. (*a*) What do you understand by computer program ?                    2

    (*b*) Briefly explain two uses of the supercomputer.                    2

    (*c*) What is the flash memory ? What are the features of flash memory ?                    4

    (*d*) Briefly explain the two primary objectives of an operating system.                    4

    (*e*) Explain data bus.                    2

    (*f*) Give full form of the following abbreviations :                    3

        (*i*) FLOPS

        (*ii*) PCB

        (*iii*) CAD

(g) Convert the binary number 1001111011 into the following representations :

    (i) 1's complement

    (ii) 2's complement.

(h) What is application software ? Give *two* examples.

(i) Explain any *one* input pointing device.

2. (a) Explain the input-process-output cycle.

    (b) Briefly explain the use of computers in Education, Advertising and Government sectors. 6

3. (a) What is motherboard ? Explain the booting process when the computer is switched on. 6

    (b) Explain different ways to access information from the storage device with example. 4

4. Convert the following : 10

    (i) $(114.325)_{10}$ to $(?)_8$

    (ii) $(DCE.0C)_{16}$ to $(?)_2$

    (iii) $(372.602)_8$ to $(?)_{10}$

    (iv) $(1028.25)_{10}$ to $(?)_8$

    (v) $(1011001.11)_2$ to $(?)_8$

5. (a) Give differences between the following with examples : 6

    (i) Audio input device and video input device

    (ii) Hand-held scanners and flat-bed scanners

    (iii) Hard copy devices and soft copy devices.

    (b) Explain any *two* different types of I/O ports. 4

6. Perform the following binary operation : 10

    (i)  $(10110000.011)_2 - (100010.101)_2$

    (ii)  $(1110011.101)_2 + (1100011.001)_2$

7.  (a)  What is an operating system and how does operating system perform memory management in a system ? 6

    (b)  Differentiate between Disk partitioning and Disk compression. 4

8. Write short notes on the following terms (any *four*) : 10

    (i)  Big data

    (ii)  System clock

    (iii)  Throughput

    (iv)  Google scholar

    (v)  CMOS chip

This question paper contains **3** printed pages]

Roll No. ☐☐☐☐☐☐☐☐☐☐

S. No. of Question Paper : **1955**

Unique Paper Code : **62341101**                    **GC-3**

Name of the Paper : **Computer Fundamentals**

Name of the Course : **B.A. (Prog.) Computer Science–CBCS**

Semester : **I**

Duration : **3 Hours**                                        Maximum Marks : **75**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Question No. **1** is compulsory.

Attempt any **5** questions from Question No. **2** to Question No. **8**.

Parts of a question must be answered together.

1.  (*a*)  What is the purpose of ROM in the computer system ?                    2

    (*b*)  Convert the binary number 1111011 into the following representations :                    2

        (*i*)  1's complement

        (*ii*)  2's complement

    (*c*)  Write applications of Touch Screen.                    2

    (*d*)  Define seek time and latency time.                    4

    (*e*)  What do you mean by pixels ? Briefly explain the three factors on which the clarity
        of image on computer screen depends.                    5

P.T.O.

(f)  What is the purpose of a device driver ?    2

(g)  How many types of software are there ? Explain each *one* with examples.    4

(h)  What do you understand by Address Bus ? How much memory (in GB) can be addressed by a 36 bit address bus ?    4

2.  (a)  Define the relationship between hardware and software of a computer system with examples.    6

(b)  Explain any *four* application areas of the computer with examples.    4

3.  (a)  Briefly explain impact printers and non-impact printers with *two* examples of each.  4

(b)  Define secondary memory. Explain access types of storage devices.    6

4.  (a)  Give differences between the following with examples :    6

(i)  SRAM and DRAM

(ii)  EPROM and EEPROM

(iii)  OCR and OMR

(b)  What do you understand by Utility Programs ? Briefly explain any *three* utility programs.    4

5.  Convert the following :    10

(i)  $(2049.625)_{10}$ to $(?)_2$

(ii)  $(ABC.0C)_{16}$ to $(?)_8$

(iii)  $(777.002)_8$ to $(?)_{10}$

(iv)  $(23668.35)_{10}$ to $(?)_{16}$

(v)  $(11001.101)_2$ to $(?)_8$

6.  (a)  What is an Operating System ? How does operating system provide security to a

    system ?                                                                         6

    (b)  Differentiate between Turnaround time and Response time.                    4

7.  Perform the following binary operation :                                        10

    (i)   $(11110011.011)_2 - (1010.111)_2$

    (ii)  $(110011.11)_2 + (100011.001)_2$

8.  Write short notes on the following terms (any *four*) :                         10

    (i)   e-library

    (ii)  Search engine

    (iii) SMPS

    (iv)  Cloud computing

    (v)   Anti-virus

Roll No. ☐☐☐☐☐☐☐☐☐☐

S. No. of Question Paper : **2307**

Unique Paper Code : **62344328**        **GC-3**

Name of the Paper : **Computer Networks and Internet Technologies**

Name of the Course : **B.A. Programme—Computer Application (CBCS)**

Semester : **III**

Duration : **3 Hours**        Maximum Marks : **75**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Question No. **1** is compulsory.

Attempt any *Five* questions from Question Nos. **2** to **8**.

Parts of a question must be answered together.

Marks are indicated against each question.

1. (*a*) Define the following terms :       2+2+2

    (*i*) Computer Network

    (*ii*) Protocol

    (*iii*) LAN.

  (*b*) Differentiate between the following :       2+2

    (*i*) Hub and Switch

    (*ii*) Static and Dynamic Web Page.

  (*c*) What is the difference between text area and text box object in a form ?     2

(d) What is star topology ? Give its *two* advantages and two disadvantages.                3

(e) What is half duplex data communication ?                                                2

(f) Write HTML statement to make "abc.jpg" as background picture of a web page.  2

(g) What is the purpose of "ROWSPAN" option in an HTML table ?                               2

(h) Write a JavaScript Statement to display a dialog box with the message "The background color will be changed".                                                                            2

(i) What are unordered lists ? State the different bullet types available with unordered lists in HTML.                                                                                      2

2. (a) What is World Wide Web (www) ? How do you access a document using www ? 5

   (b) What is TELNET ? What is the difference between local and remote login in TELNET ?                                                                                                 5

3. (a) What is the full form of ISO OSI reference model ? Explain the responsibilities of Session Layer and Data Link Layer in OSI reference model.                                          5

   (b) What is a twisted pair cable ? Differentiate between Category 3 and Category 5 twisted pair cables.                                                                                 3+2

4. (a) Write a short note on HTTP, explaining its use and properties.                        5

   (b) What are the criteria that affect the network efficiency ?                            5

5. (a) What are frames and framesets ? Differentiate between them with the help of an example.                                                                                             5

(b) Explain any *three* events in JavaScript ? Which tag helps us identify a JavaScript code in an HTML file ? Can we store JavaScript code as a separate file ?          3+1+1

6. (a) What is the difference between break and continue in JavaScript ? Explain with the help of an example.

5

(b) Write an html code to generate the following output :          5

**Bakery Items :**

(i)   Pizza

(ii)  Cakes

(iii) Cookies

(iv)  Muffins.

**Drinks :**

(i)   Coke

(ii)  Pepsi

(iii) Sprite.

7. (a) Give the syntax of FONT command in HTML.          5

(b) Describe the functions performed the following HTML tags :          5

(i)   <HR>

(ii)  <DIV>

    (*iii*)  &lt;BR&gt;

    (*iv*)  &lt;P&gt;

    (*v*)  &lt;I&gt; text &lt;/I&gt;

8.    Briefly explain the following :        1(

    (*i*)    Search Engine

    (*ii*)   Web Crawling

    (*iii*)  WAP

    (*iv*)  URL

    (*v*)   Increment and decrement operators in JavaScript.

This question paper contains **4** printed pages]

Roll No. ☐☐☐☐☐☐☐☐☐☐☐

S. No. of Question Paper : **2308**

Unique Paper Code · : **62344328**                    **GC-3**

Name of the Paper     · : **Computer Networks and Internet Technologies**

Name of the Course      : **B.A. Programme—Computer Application (CBCS)**

Semester              : **III**

Duration : **3 Hours**                                      Maximum Marks : **75**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Question No. **1** is compulsory.

Attempt any *Five* questions from Question Nos. **2** to **8**.

Parts of a question must be answered together.

Marks are indicated against each question.

1.  (*a*)   How a picture can be set as a background on web pages ?                    2

    (*b*)   Write the difference between <BR> and <P> tag.                              2

    (*c*)   Explain with an example the onclick event of Button type element.          2

    (*d*)   What will be the output of "10" + 20 + 30 in JavaScript ?                  2

    (*e*)   Expand and briefly explain VSAT.                                           3

    (*f*)   List any *two* advantages and two disadvantages of Star topology.          2

    (*g*)   What are the *four* characteristics on which the effectiveness of data communication

            depends ? Explain.                                                        4

                                                                              P.T.O.

(h) What is the difference between radio button and check box ? Explain with the help of an example. 3

(i) What are advantages of using frames in HTML ? 2

(j) Write names of all guided media. Explain any *one* of them. 3

2. (a) Write an HTML code to generate the following output : 5

**Hardware devices :**

(i) CD-ROM drive

(ii) DVD drive

(iii) Hard disk

(iv) Modem

**Web Languages :**

(i) HTML

(ii) JavaScript

(iii) PHP

(iv) Java.

(b) Write the syntax to insert an image in the document. Also explain the attributes to align image in a HTML document. 5

3. (a) Write JavaScript code to generate the following form with the required functionality.  5



```
X [            ]        Y [            ]        Z [            ]

Greatest Number    [            ]


  [    Calculate    ]
```

Required functionality : user should enter three numbers x, y, z. On pressing calculate

button, the number which is greatest among them should be displayed in the box designated.

Code must give the proper message if any one of the numbers is not entered.

(b) What are data types in JavaScript ? Explain any *four* data types.        5

4. Differentiate between :        10

(a) Multipoint and point-to-point connections

(b) Frame and packet

(c) Routers and gateways

(d) Connection Oriented *Vs*. Connectionless data transmission.

5. (a) What are the difficulties in web browsing using mobiles as compared to using desktop computers ? List any *five*. 5

   (b) What are the functions of Network layer ? In TCP/IP model which protocol works at the network layer level ? 3+2

6. (a) Compare and contrast data communication through satellites and terrestrial point-to-point links. 5

   (b) What are three data transmission modes ? Explain with examples. 5

7. (a) What is the use of GET and POST methods ? Give syntax with example. 5

   (b) Create the following output in HTML. 5

```
               *

         *          *

    *         *          *
```

8. Write short notes on : 10

   (a) Data link layer

   (b) Remote logging

   (c) Web streaming

   (d) Real Time Conferencing.

Roll No. ☐☐☐☐☐☐☐☐

S. No. of Question Paper : **2335**

Unique Paper Code : **62343318**                    **GC-3**

Name of the Paper : **Office Automation Tools**

Name of the Course : **B.A. (Prog.) Computer Application Skill Enhancement Course**

Semester : **III**

Duration : **2 Hours**                              Maximum Marks : 25

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Question No. **1** is compulsory.

Attempt any *three* questions from rest of the five.

1.  (*i*)  The cell reference for a range of cells that starts from column C and row 1 and goes over to column H and down to row 10 is :                    10×1=10

   (*a*)  1C:10H

   (*b*)  C1:H10

   (*c*)  C-1:H-10

   (*d*)  C:1..H:10

   (*ii*)  What does the VLOOKUP( ) function do ?

   (*a*)  Looks up text that contain 'v'

   (*b*)  To replace a text

   (*c*)  Find related records

   (*d*)  All of the above

P.T.O.

(iii) Which of the functions shows the word "TRUE" or "FALSE" as a result ?

(a) SUM

(b) COUNT

(c) IF

(d) MIN

(iv) How can we set Page Border in Excel ?

(a) From Edit Menu

(b) From Home

(c) You cannot set page border in Excel

(d) From Tools menu

(v) Which of the following should be used to make the same "look" for all the slides in a presentation ?

(a) The slide layout option

(b) Add a slide option

(c) Outline view

(d) A presentation design template

(vi) Special effects used on objects of the slides in a presentation are called :

(a) Effects

(b) Animations

(c) Transitions

(d) None of the above

(*vii*) What is the term used when you press and hold the left mouse key and move the mouse around the slide ?

    (*a*)   Deleting

    (*b*)   Dragging

    (*c*)   Selecting

    (*d*)   Moving

(*viii*) A screen element of MS Word that is usually located below the title bar that provides categorized options is :

    (*a*)   Menu Bar

    (*b*)   Tool Bar

    (*c*)   Status Bar

    (*d*)   All of the above

(*ix*) Which of the following is *not* a PowerPoint view ?

    (*a*)   Slide show view

    (*b*)   Slide view

    (*c*)   Presentation view

    (*d*)   Outline view

(*x*) Portrait and Landscape are :

    (*a*)   Page Orientation

    (*b*)   Paper Size

    (*c*)   Page Layout

    (*d*)   All of the above

2. Write functions for the operations (a)–(e) based on the spreadsheet given below along with the relevant cell addresses : 5

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | SNO | Name | Science | Maths | Computers | Total | Average |
| 2 | 1 | Swati | 70 | 80 | 87 | -- | -- |
| 3 | 2 | Shruti | 90 | 98 | 89 | -- | -- |
| 4 | 3 | Neelu | 90 | 90 | 98 | -- | -- |
| 5 | 4 | Rosy | 60 | 76 | 79 | -- | -- |
| 6 | 5 | Shreya | 50 | 45 | 67 | -- | -- |
| 7 | Max | | | -- | -- | | |
| 8 | Total | | -- | | | | |

(a) To calculate the Total Marks as sum of Science, Maths and Computers for each student and display them in column F.

(b) To calculate the average marks for each student and display them in column G.

(c) To calculate the highest marks in Computers and display it in cell E7.

(d) To calculate the lowest marks in Maths and display it in cell D7.

(e) To calculate the total number of students appearing for the Science test and display it in cell C8.

3. (a) How are charts useful in Excel ? Name any *two* types of chart available in Excel. 2

(b) Explain different types of Cell References supported by Excel with a suitable example. 3

4. (a) What is the difference between Animation and Transition ? Explain with example. 2

(b) What is Rehearse Timings in PowerPoint and why is it used ? 3

5. (a) Differentiate between Outline view and Slide Sorter view in PowerPoint. 3

(b) Write steps to insert a picture in PowerPoint slide. 2

6. What is Mail Merge ? Explain the process of Mail Merge in MS-Word. 5

This question paper contains **4** printed pages]

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Part A is of **25** marks and is compulsory.

Attempt any *Five* questions from Part B.

## Part A

1.    (*i*)    Which of the OSI layers handles each of the following ?      3

       (*a*)    Dividing the transmitted bit stream into frames.

       (*b*)    Determining which route through the subnet to use.

       (*c*)    Keeping track of whose turn it is to transmit.

   (*ii*)    Which two layers of layers of ISO-OSI reference model are absent in the TCP/IP

       model ?      2

(iii) What are the advantages of using optical fiber over twisted pair and co-axial cable ?

4

(iv) What is full form of VSAT ?

1

(v) Differentiate between RING topology and STAR topology.

3

(vi) Explain any *three* attributes of Frame tag in HTML.

3

(vii) Differentiate between internal and external linking with examples.

3

(viii) Write HTML statement to make an image as marquee.

2

(ix) Write the command to align the first table to left and second to right.

2

(x) Write the HTML statement for the given code :

2

```
        *
       ***
      *****
     *******
      *****
       ***
        *
```

## Part B

2. (a) Differentiate between LAN, MAN and WAN.

6

(b) Explain any *two* internet applications.

4

3. Create an admission form in HTML using the following objects :

10

Text Box, Radio buttons, Check boxes, Text Area, Select, Submit button and Reset button.

4. (a) Differentiate between upload and download in terms of internet.

(b) Explain the working of :

Routers, Hubs and Bridges.

5. (a) Using JavaScript write down a program to find the largest of three numbers giv by user.

(b) Describe "for" and "for ..... in" commands in JavaScript.

6. (a) Explain the logical operators with their syntaxes in JavaScript.

(b) Prepare the following web page layout that contains two textboxes "txtNation" to acce nationality and "txtAge" to accept age.

# Enter the details

Enter your nationality : [                    ]

Enter your age : [      ]

[ Send details ]

Write the JavaScript code to display the alert message "Eligible for Voting" when botl the given *two* validations are true :

(i) The age should be numeric and should be > 18

(ii) The nationality should be "Indian"

The alert message "Not eligible to vote" should be displayed if any of the above mentioned validations are false for the click event "Send details".

7. (a) Differentiate between Cell Spacing and Cell Padding with syntax in Table tag. 4

(b) Create the given webpage in HTML. 6

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|------|------|------|------|------|------|------|
| **January 2017** | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | Notes : | | | |

Printable Calendar January 2017 available from www.getmeacalendar.com

8. (a) Write the code to create the following structure in HTML : 2

$$x^2 + y + z^3 = 2.$$

(b) What is "event" in JavaScript ? Explain "blur" and "focus" events. 4

(c) Write short notes on the following : 4

(i) Micro Waves

(ii) Satellites.

4

1,000

This question paper contains **2** printed pages]

Roll No.

S. No. of Question Paper : **227**

Unique Paper Code : **234551**

**G**

Name of the Paper : **Software Testing—CA-3A**

Name of the Course : **B.A. (Prog.) Computer Application**

Semester : **V**

Duration : **3 Hours**

Maximum Marks : **45**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Section A is compulsory.

Attempt any *three* questions from Section B.

Each question carries **10** marks.

## Section A

1.  *All* questions are compulsory and carries equal weightage of **3** marks.

    (*a*) For the scientific software systems which software process model may be used ?                                                                                           3

    (*b*) What do you mean by Bug and Debugging ?                                                    3

    (*c*) Under what circumstances White Box Testing in used ?                                 3

    (*d*) What should be the value of Cyclomatic Complexity for a good designed software ? 3

    (*e*) Explain Gray Box Testing.                                                                                  3

## Section B

Attempt any *three* of the following. Each question carries equal marks.

2.  (*a*) Explain Waterfall Software Process Model. State the advantages and disadvantages of the same.                                                                                                             5

P.T.O.

(b) Explain Spiral Software Process Model. State the advantages and disadvantages of the same.

3. (a) Explain Testing as a process.

(b) Explain the various phases of software development life cycle.

4. (a) Differentiate between Unit Testing, System Testing, Integration Testing.

(b) Differentiate between Dynamic and Static Testing.

5. (a) Explain the various test metrics and measurements.

(b) What are the uses of software testing tools ?

6. Write short notes on any *two* of the following :                    2×5=10

(a) Throw Away Prototyping Model

(b) Types of Software Maintenance

(c) Feasibility Study.

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 229      G      Your Roll No...............

Unique Paper Code     : 234553

Name of the Paper     : CA-2A : Internet Technologies – I

Name of the Course    : **B.A. Programme**

Semester             : V

Duration : 3 Hours                      Maximum Marks : 45

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Question No. **1** is compulsory.

3. Attempt any **5** questions from **Section B**.

## Section – A

1. (a) Explain the use of <P> tag in HTML.      (2)

    (b) Write the code to create the following structure in HTML :

       $2H_2 + O_2 = 2H_2O$      (2)

    (c) What is <MARQUEE> tag in HTML ? Give an example.      (2)

    (d) Write the code to change the color of a hyperlink to Green.      (2)

    (e) Name the tag to insert a horizontal line on a page.      (1)

    (f) What is the difference between Checkbox and radio button objects in a form ?      (2)

    (g) Explain the syntax and purpose of "alert" method.      (2)

    (h) What is the difference between Cell Spacing and Cell Padding ?      (2)

*P.T.O.*

## Section – B

2.  Give an HTML code for the given form                                      (6)



If Designation is M (Manager) then Tax = 20% of Gross otherwise it is 10% of Gross. Calculate the Net Salary" (Gross – Tax) on "onClick()" event handler of the button.

3.  (a) Write a JavaScript code to check whether a given number is a multiple of 5 or not.                                                                 (4)

    (b) What do you mean by DOCTYPE in HTML ?                                  (2)

4.  Write the HTML code to create the following page using frames :           (6)

| File A | File B | File C | File G |
|--------|--------|--------|--------|
|        | File D |        |        |
|        | File E | File F |        |

5. Write HTML code for the following :                          (6)

### Components of a Computer System
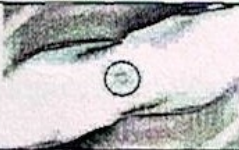
A.  Hardware

    1. Memory

    2. Processor

    3. Peripheral Devices

B.  Software

- System Software

    i. OS

    ii. Drivers

    iii. Utility Programs

- Application Software

    i. Document Processing

    ii. Payroll

    iii. Banking etc.

6. Write HTML code for the following :                          (6)

| ROW 1 COL 1 | |
|---|---|
| ROW 2 COL1 | ROW 2 COL 2 (i) |
|  | ROW 2 COL2 (ii) |

7. (a) Explain any two ways of representing colors in HTML.        (4)

(b) Write the HTML syntax for changing the Font type of a text to Arial.   (2)

8. Write HTML code to create the following form :   (6)

## NATIONAL SCHOLARSHIP PORTAL

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**Registration Form**

Name of the College : [        ]

Name of the Affiliating University : [ University of Delhi   ▼ ]

Nature of College   ● Private   ● Government

Courses Offered : Certificate □   Under Graduate □   Post Graduate □

[ Submit Data ]   [ Refresh Data ]

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Roll No. ⬜⬜⬜⬜⬜⬜⬜⬜

S. No. of Question Paper : **250**

**G**

Unique Paper Code : **290563**

Name of the Paper : **Computer Applications-I**

Name of the Course : **B.A. (Prog.) Computer Application**

Semester : **V**

Maximum Marks

Duration : **3 Hours**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

Section A is compulsory.

Attempt any *three* questions from Section B.

## Section A

1. (*a*) Write short notes on :

    (*i*)    Cache memory

    (*ii*)   Optical fibre.

  (*b*)   Differentiate between : Printers and Plotters.

  (*c*)   Define the term "Operating System". Give any *two* examples of operating system

  (*d*)   What is a web browser ? Explain the different types of web browsers

      examples.

  (*e*)   What is the smallest unit of data that a computer can deal with ? How may byt

      there in 1 MB ?

  (*f*)   Differentiate between "Field" and "Record" in the context of DBMS.

## Section B

(a) Explain the components of a computer system with a block diagram.  5

(b) What is a System Bus ? Name and explain the different components of a system Bus.  4

(c) What are registers ?  1

(a) What is ROM ? Explain any *four* types of ROM available.  5

(b) Describe briefly any *two* pointing devices.  5

(a) Describe any *three* types of operating system.  6

(b) What do you understand by data transmission mode ? Explain briefly the various transmission modes possible.  4

(a) How is a client-server network different from peer-to-peer network ?  4

(b) What is URL ? Describe the structure of URL with suitable examples.  6

(a) Define DBMS. Explain the various components of DBMS.  5

(b) Explain any *two* advantages of DBMS.  5

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 491     G     Your Roll No...............

Unique Paper Code     : 234581

Name of the Paper     : Computers Applications in Business (C.P 5.2)

Name of the Course     : **B.Com. (Prog.)**

Semester     : V

Duration : 2 Hours          Maximum Marks : 45

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. All questions are compulsory.

3. Answers should be brief and all parts of a question be answered together.

4. Answers may be written either in English or Hindi; but the same medium should be used throughout the paper.

## छात्रों के लिए निर्देश

1. इस प्रश्न-पत्र के मिलते ही ऊपर दिए गए निर्धारित स्थान पर अपना अनुक्रमांक लिखिए ।

2. सभी प्रश्न अनिवार्य हैं ।

3. उत्तर संक्षिप्त हों तथा प्रश्न के सभी उपभाग क्रमवार लिखिए ।

4. इस प्रश्न-पत्र का उत्तर अंग्रेजी या हिंदी किसी एक भाषा में दीजिए, लेकिन सभी उत्तरों का माध्यम एक ही होना चाहिए ।

1. Fill up the blank :              (5)

    (i) _____ cell reference is used to copy a formula from one cell to another.

    (ii) _____ is text that is printed at the bottom of every page.

2

(iii) _____ command is used to change the existing text with new text in MS-Word.

(iv) ASCII stands for _____ .

(v) _____ is protocol for mail services.

रिक्त स्थानों की पूर्ति कीजिए :

(i) _____ सेल रेफरेन्स का प्रयोग एक सेल से दूसरे सेल में सूत्र (formula) कॉपी करने के लिए किया जाता है ।

(ii) _____ एसी टेक्स्ट है जिसे हर पृष्ठ पर सबसे नीचे प्रिंट किया जाता है ।

(iii) _____ कमाण्ड का प्रयोग, वर्तमान पाठांश को नए पाठांश से परिवर्तित करने के लिए (एम एस वर्ड में) किया जाता है ।

(iv) ASCII का अभिप्राय है _____

(v) _____ मेल सेवाओं के लिए प्रोटोकॉल है ।

2. (a) What are the main components of CPU in a computer ? Briefly explain their functions. (5)

(b) What is paragraph alignment ? What are the different types of alignments ? (5)

**OR**

(a) Define the terms : Hardware, Software and Firmware. (5)

(b) (i) Calculate Decimal Equivalent of the Binary number $(1100101)_2$.

(ii) Calculate Binary Equivalent of the Decimal number $(42)_{10}$. (5)

(क) एक कम्प्यूटर में सेन्ट्रल प्रोसेसिंग यूनिट के मुख्य घटक कौन से हैं ? संक्षेप में उनके कार्य बताइये ।

(ख) पैराग्राफ सरेखण किसे कहते हैं ? सरेखण के विभिन्न प्रकार कौन से हैं ?

अथवा

(क) इन शब्दों को परिभाषित कीजिए– हार्डवेयर, सॉफ्टवेयर तथा फ़र्मवेयर ।

(ख)    (i) द्वि–आधारी संख्या $(1100101)_2$ की तुल्य दशमलव संख्या की गणना कीजिए ।

(ii) दशमलव संख्या $(42)_{10}$ की तुल्य द्वि–आधारी संख्या ज्ञात कीजिए ।

3.    (a)    What do you understand by a search engine and a Browser ? How are they useful in the context of the internet ?                                               (5)

(b)    What is Page Formatting in MS-Word ? What options are available in page formatting ?                                                                                        (5)

**OR**

(a)    How do you create a table in MS-Word ? Explain the purpose of split cell and merge cell in a table with examples.                                               (5)

(b)    Write down the steps to create bullets in a document.                        (5)

(क)    सर्च इन्जन तथा ब्राउज़र से आप क्या समझते हैं ? इन्टरनेट के सन्दर्भ में ये किस प्रकार महत्वपूर्ण हैं ?

(ख)    एम एस वर्ड में पृष्ठ स्वरूपण क्या होता है ? पृष्ठ स्वरूपण के लिए कौन से विकल्प उपलब्ध होते हैं ?

**अथवा**

(क)    एम एस वर्ड में आप तालिका किस प्रकार बनाते हैं ? किसी भी तालिका में सेल विभाजन तथा सेल विलय के उद्देश्यों की व्याख्या कीजिए ।

(ख)    किसी भी दस्तावेज़ में बुलेट बनाने की पद्धति लिखिए ।

4.    (a)    What do you understand by a slide show ? Explain the procedure to copy the slide from one presentation to another.                                         (5)

(b)    What is the difference between Line Chart and Pie-Chart ?              (5)

**OR**

(a)    What are headers and footers ? What are the advantages of using them ? Explain with examples.                                                                       (5)

(b) What do you mean by slide animations and slide transitions ? (5)

(क) स्लाइड शो से आप क्या समझते हैं ? एक प्रस्तुति से दूसरी प्रस्तुति में स्लाइड कॉपी करने की प्रक्रिया समझाइये ।

(ख) रेखीय चार्ट तथा पाई चार्ट में क्या अन्तर है ?

**अथवा**

(क) शीर्ष लेख तथा पद लेख किसे कहते हैं ? इनके प्रयोग के क्या लाभ हैं, उदाहरण सहित समझाइये ।

(ख) स्लाइड एनीमेशन तथा स्लाइड संक्रमण से क्या अभिप्राय है ?

5. (a) Differentiate between worksheet and workbook in MS-Excel. (5)

(b) Write the difference between internet and intranet. (5)

**OR**

(a) Explain the functions: PMT and IPMT. (5)

(b) What do you mean by cell reference in MS-Excel ? What are the different types of cell references ? (5)

(क) एम एस एक्सेल में, वर्कशीट तथा कार्यपुस्तिका में अन्तर्भेद कीजिए ।

(ख) इन्टरनेट तथा अंतःजाल (intranet) में अन्तर स्पष्ट कीजिए ।

**अथवा**

(क) PMT तथा IPMT फलनों की व्याख्या कीजिए ।

(ख) एम एस एक्सेल में, सेल संदर्भ से आप क्या समझते हैं ? विभिन्न प्रकार के सेल सन्दर्भ कौन से हैं ?