UNIVERSITY OF THE PUNJAB
First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer-I
Course Code: COMP-101
TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Choose correct option.

1. The processed data is called
   a. Processing  b. Input  c. Storage  d. Information

2. The computer that makes data available to other computer is called
   a. Client  b. Server  c. Smart Phone  d. PDA

3. A word processor can be used for
   a. Write text  b. Edit text  c. Print text  d. All

4. Which of the following is not inside the system unit

5. CPU is an example of
   a. Software  b. Hardware  c. Program  d. None

6. The difference b/w ROM and RAM is
   a. ROM is larger  b. ROM is non-volatile
   c. ROM is read only  d. Both b & c

7. Which is not the part of CPU
   a. ALU  b. CU  c. Bus  d. None

8. The computer that makes data available to other computer is called
   a. Client  b. Server  c. Smart Phone  d. PDA

9. Computer cannot do anything without a
   a. Chip  b. Memory  c. Output device  d. Program

10. Microsoft Excel is a
    a. Word Processing  b. Spread Sheet Software
    c. Database Management System  d. None of above
UNIVERSITY OF THE PUNJAB
First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer-I
Course Code: COMP-101

TIME ALLOWED: 2 hrs. & 30 mins.
MAX. MARKS: 50

Attempt this Paper on Separate Answer Sheet provided.

Answer the following short questions. Each question carries equal marks. (2 x 10) 20

1. What is Flash Memory?
2. Differentiate between software and hardware?
4. What is Touchpad?
5. Explain any two uses of MS Access.
6. What is Data Communication?
7. Differentiate between Database and Database Management System.
8. What are output devices?
10. Name types of computers.

Answer following long questions. (7.5 x 4) 30

1.
   a. Define Storage devices, explain all major types of storage devices. 7.5
   b. Explain Memory and its Types. 7.5

2.
   a. Describe and explain IF-ELSE formula in MS Excel with example. Also write a method of creating and formatting Charts in MS Excel. 7.5
   b. Write a method of creating a presentation in MS Powerpoint. Write any two features of MS Powerpoint with their uses and applications. 7.5
UNIVERSITY OF THE PUNJAB  
First Semester 2015  
Examination: B.S. 4 Years Programme  
PAPER: Computer (Introduction and Applications)  
Course Code: COMP-111/  
TIME ALLOWED: 2 hrs. & 30 mins.  
MAX. MARKS: 50  

Attempt this Paper on Separate Answer Sheet provided.

Answer the following short questions. Each question carries equal marks. (2 x 10)20

1. What is Flash Memory?
2. Define Data Communication?
4. What is Touchpad?
5. Explain Header and Footer in MS Word.
6. What is Modem also name its types?
7. Differentiate between Database and Database Management System.
8. What is Biometric Input?
9. What are types of computer networks?
10. What does mean by Computer Security?

Answer following long questions. (7.5 x 4) 30

1.
   a. Define Input Devices, explain all major types of input devices.  7.5
   b. Explain Types of Storage Devices.  7.5

2.
   a. Describe and explain IF-ELSE formula in MS Excel with example. Also write a method of creating and formatting Charts in MS Excel.  7.5
   b. Write a method of creating a presentation in MS Powerpoint. Write any two features of MS Powerpoint with their uses and applications.  7.5
UNIVERSITY OF THE PUNJAB
First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer (Introduction and Applications)  
Course Code: COMP-111/  
TIME ALLOWED: 30 mins.  
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Choose correct option.

1. The processed data is called ____________________________
   a. Processing   b. Input   c. Storage   d. Information

2. The computer that makes data available to other computer is called_________________
   a. Client   b. Server   c. Smart Phone   d. PDA

3. A word processor can be used for ____________________________
   a. Write text   b. Edit text   c. Print text   d. All

4. Combination of rows and columns is called____________________
   a. Block   b. Rectangle   c. Cell   d. None

5. CPU is an example of ____________________________
   a. Software   b. Hardware   c. Program   d. None

6. Microsoft Excel is a ____________________________

7. URL stands for ____________________________

8. An operating system is a ____________________________
   a. System software   b. microcomputer   c. System Utility   d. Applications software

9. ___________________________________ can damage your personal data on computer.
   a. Virus   b. A hacker   c. high voltage   d. none

10. The difference b/w ROM and RAM is ____________________________
    a. ROM is larger   b. ROM is non-volatile
    c. ROM is read only   d. Both b & c
UNIVERSITY OF THE PUNJAB

First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer Usage-I  
Course Code: COMP-112

TIME ALLOWED: 2 hrs. & 30 mins.
MAX. MARKS: 50

Attempt this Paper on Separate Answer Sheet provided.

Section II

Give the short answers of the following questions:  

1. Define operating system? Give two examples.
2. What is a PACKAGED SOFTWARE?
3. What are the components of GUI? Enlist please.
4. What is the purpose of if[] function of MS Excel?
5. What is computer memory? Describe its types.
6. What is the booting process of a computer?
7. Describe the functions of Task Bar in windows?
8. What is the difference between Hardware and Software?
9. What is the difference between Memory and Storage?
10. What data types we can save in an Excel Cell?

Section III

1. What are the different Paragraph formatting components? Explain.
2. What is a Monitor? Explain different types of Monitor.
3. What is the purpose of SUM() function in MS Excel? Explain the different components and formats of SUM() function.
UNIVERSITY OF THE PUNJAB

First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer Usage-I
Course Code: COMP-112
TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Section – 1

Multiple Choice: Select best possible option from the given below. {10 x 1 = 10}

1. In MS Windows which component provides a tree like view of disks, its files and folders?
   a. My Computer  
   b. Control Panel  
   c. Windows Explorer  
   d. Start Menu
2. The software that removes viruses from disk are known as:
   a. Antivirus  
   b. Remover  
   c. Virus killer  
   d. Destroyer
3. Which of the following lets you browse the contents of your computer.
   a. My Network Places  
   b. Windows Explorer  
   c. My Computer  
   d. My Documents
4. The bar displayed at the bottom of the desktop is known as:
   a. Menu Bar  
   b. Title Bar  
   c. Tool Bar  
   d. Task Bar
5. UNIVAC is
   a. Universal Automatic Computer  
   b. Universal Array Computer  
   c. Unique Automatic Computer  
   d. Unvalued Automatic Computer
6. ALU is:
   a. Arithmetic Logic Unit  
   b. Array Logic Unit  
   c. Application Logic Unit  
   d. None of these
7. IBM 1401 is
   a. First Generation Computer  
   b. Second Generation Computer  
   c. Third Generation Computer  
   d. Fourth Generation Computer
8. High resolution means:
   a. Greater number of pixels  
   b. Larger pixel size  
   c. Bigger picture  
   d. All of these
9. What does CPU stands for:
   a. Core Processing Unit  
   b. Computer Processing Unit  
   c. Central Processing Unit  
   d. Combine Processing Unit
10. Formulas, Chart, Sorting, Auto fill are features of:
    a. MS Word  
    b. MS Excel  
    c. Note pad  
    d. Word pad
UNIVERSITY OF THE PUNJAB

First Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer Applications in Business
Course Code: COMP-121

TIME ALLOWED: 2 hrs. & 30 mins.
MAX. MARKS: 50

Attempt this Paper on Separate Answer Sheet provided.

Note: - Attempt all Questions

Q.2 Short Questions

i. What is the difference between LAN & WAN?
ii. What is a Digital Computer?
iii. Write the procedure to set Header/Footer in MS word document.
iv. Write down the steps for inserting a Picture in MS Power Point.
v. Difference between “Save” and “Save As”.
vi. What is the difference between “System Software’s” and “Application Software’s”?
vii. What is the difference between “Web Server” and “Search Engine”?
viii. What do you mean by “Trace Precedents” and “Trace Dependents”?
ix. Define RAM and why it is called RAM?
x. Enlist the five (5) main services of the Internet?

Q.3 What is difference between data and information? Write a note on “data processing as a business need”

Marks (10)

Q.4 Write a note on the following:

a. Absolute and Mixed Cell References
b. Margin, Orientation and Section Breaks (In MS Word 2007)

Marks (10)

Q.5 What is MS Power Point and why we use it? How can we make a good presentation in MS Power Point 2007 using Animation?

Marks (10)
Q. 1 Select the best suitable answer:

i. Which of the following is not a type of "Tab Stops" in MS Word 2007?
   a. Left Tab Stop
   b. Right Tab Stop
   c. Decimal Tab Stop
   d. Float Tab Stop
   e. Center Tab Stop

ii. Cables carry data signals in the form of light.
   a. Coaxial
   b. Fiber-Optic
   c. Twisted-Pair
   d. All of above

iii. In which mode both sender and receiver can send data at a time?
   a. Simplex
   b. Half Duplex
   c. Full Duplex
   d. Both a & b

iv. Which topology requires a central controller or hub?
   a. Mesh
   b. Star
   c. Bus
   d. Ring

v. What is the default file extension for MS Power Point 2007 document?
   a. .docx
   b. .xlsx
   c. .pptx
   d. .xls

vi. Which of the following option does not exist in "Presentation Views".
   a. Normal
   b. Slide Sorter
   c. Guide View
   d. Notes Page

vii. IF function have ______ part(s)
   a. Logical test
   b. Value if true
   c. Value if false
   d. (a) and (b)
   e. (a), (b) and (c)

viii. The keyboard format that is most commonly used is the:
   a. Qwerty
   b. Dvorak
   c. Ergonomic
   d. Virtual

ix. A ______ is a computer that manages the resources on a network.
   a. Stand-alone computer
   b. Laptop
   c. Desktop
   d. Server
   e. Client

x. $SXFD10$ is an example of ______ reference.
   a. Absolute Cell Reference
   b. Relative Cell Reference
   c. Mixed Cell Reference
   d. Uniform Cell Reference
UNIVERSITY OF THE PUNJAB
Second Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer -II
Course Code: COMP-103

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

OBJECTIVE

Note: Over-writing, Cutting, Erasing, Using lead pencil will result in loss of marks.

Q1: Choose the best answer

(10*1=10)

i) All records in a file have the same:
   a) contents
   b) structure
   c) both a and b
   d) none

ii) SQL stands for:
   a) short-query-list
   b) seek-qualify-label
   c) structure-query-language
   d) none

iii) Which of three schemas used in three-scheme model is a complete logical view of database:
   a) external
   b) internal
   c) implementation
   d) conceptual

iv) Which of the following is not a major area for the database administrator?
   a) planning
   b) programing
   c) implementation
   d) security

v) A person name, birthday, and social security number are all example of:
   a) attributes
   b) entities
   c) relationships
   d) descriptors

vi) A relationship is an association between:
   a) objects
   b) entities
   c) databases
   d) fields

vii) Every relation must have:
   a) primary key
   b) candidate key
   c) secondary key
   d) b and c

viii) In 3NF, a non-key attribute must not depend on:
   a) non-key attribute
   b) key attribute
   c) composite key
   d) short key

ix) A relation is considered as:
   a) column
   b) one-dimensional table
   c) two-dimensional table
   d) three-dimensional table

x) DBMS is a software:
   a) Yes
   b) No
Q2. Give Short answer of the following questions.

1. Define Metadata?
2. What is Database Management System?
3. How many components of the DBMS?
4. Define Weak Entities and Strong Entities?
5. Define the term attribute?
6. Difference between Generalization and Specialization?
7. Explain the term of Data Redundancy?
8. Difference between Primary Key and Foreign Key?
9. Difference between file processing system and database system?
10. Difference between DBA and DA?

Subjective Type

Q3. What is Relational Data Integrity. Discuss different categories of data integrity?

Q4. Discuss Normalization and its steps in detail?

Q5. Explain Three schema architecture with diagram?
UNIVERSITY OF THE PUNJAB
Second Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Introduction to Computers (Revised)  Course Code: COMP-121
TIME ALLOWED: 30 mins.  MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Choose correct option.

1. The Internet is an example of a __________ network.
   a. Star  b. Bus  c. Hybrid  d. mesh

2. Folders within folders are called __________.
   a. Sub folders  b. Directories  c. Paths  d. none

3. A command-line interface tells you it is waiting for the next command by using a __________.
   a. Dialog Box  b. System Call  c. Prompt  d. Menu

4. A service provided by the OS for programmers is referred to as a(n) __________.

5. The __________ is the electronic pathway between components in the computer.
   a. CPU  b. Bus  c. RAM  d. Register

6. The processed data is called __________.
   a. Processing  b. Input  c. Storage  d. Information

7. A word processor can be used for __________.
   a. Write text  b. Edit text  c. Print text  d. All

8. Combination of rows and columns is called __________.
   a. Block  b. Rectangle  c. Cell  d. None

9. Microsoft Excel is a __________.

10. URL stands for __________.
Answer the following short questions. Each question carries equal marks. (2 x 10) 20

1. Differentiate between SAVE and SAVE AS.
2. What is Word Processor?
3. What is Online Searching?
4. Differentiate between formula and functions.
6. What is Data communication?
7. What is GUI?
8. What does mean by slide animation?
9. What is drop cap in MS Word?
10. Differentiate between File and Folder?

Answer following Long Questions. (10 x 3) 30

1. What is Computer? Explain components of System unit in detail. 10
2. Define input devices, explaining all major types of output devices. 10
3. Describe and explain IF- ELSE formula in MS Excel with example. Also Write any two features of MS Word with their uses and applications 10
UNIVERSITY OF THE PUNJAB

Third Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer-III
Course Code: COMP-201

TIME ALLOWED: 2 hrs. & 30 mins.
MAX. MARKS: 50

Attempt this Paper on Separate Answer Sheet provided.

SUBJECTIVE

Question # 2

Answer the following short questions:

a) What is the role of Foreign and Primary Key in Data Base tables?

b) What is the difference between HTML, XML, DHTML?

c) List the names of the technology (languages or tools) used for developing Dynamic WWW?

d) What are pros and cons of dynamic www?

e) Make clear the difference between High level Programming languages and the scripting languages.

Question # 3

(6 * 5 = 30 Marks)

a) Why java not supports Multiple Inheritance? Describe advantages of it.

b) Write a Code in java: there is a class with name “shape” and classes “circle”, “rectangle” and “triangle” have been derived from class shape. And all the derived classes must have a method to find area of their shape whose required inputs will be provided by user on run time.

c) Assume that you have taken a text Box to store email id. Give the full script to verify that inputted data in this box is a well formed/structured email id.

d) Write a script in any scripting language of your own choice which will verify that the URL entered in a text box with label “URL” is in correct format.

e) Explain in detail, how can we develop static web sites using HTML?
UNIVERSITY OF THE PUNJAB
Third Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer-III
Course Code: COMP-201/

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

OBJECTIVE

Question # 1 Select the correct option: (1 * 10 Marks)

1. A website address is a unique name that identifies a specific ______ on the web.
   a) website  b) web browser  c) Link  d) None of these

2. Websites can be divided into two broad categories ______
   a) Content-based sites and service-based sites  b) static and interactive
   c) Forum website and Gallery Website  d) Dynamic code and Dynamic content

3. Which of the following is not a valid comment in Java Script?
   a) /* This is a Java Script comment.
   b) // This is a Java Script comment.
   c) /* This is a Java Script comment */
   d) All of these

4. Which statements about JDBC are true?
   a) JDBC is an API to connect to relational-, object- and XML data sources
   b) JDBC stands for Java Database Connectivity
   c) JDBC is an API to access relational databases, spreadsheets and flat files
   d) JDBC is an API to bridge the object-relational mismatch between OO programs and
      relational databases

(P.T.O.)
5. Which packages contain the JDBC classes?
   a) java.jdbc and javax.jdbc
   b) java.jdbc and java.jdbc.sql
   c) java.sql and javax.sql
   d) java.rdb and javax.rdb

6. Statements of JavaScript function are enclosed in.
   a) { & }  b) [ & ]  c) ( & )  d) None of these

7. Which of the following is server side programming languages?
   a) VbScript  b) JavaScript  c) JSP  d) HTML

8. What kind of programming language is Java?
   a) Object-oriented programming language  b) Relational programming language
   c) Sixth-generation programming language  d) Database management language

9. The Extension with which web documents are saved is ________________
   a) .class  b) .c  c) .html  d) .css

10. The <br> tag is used to add ________________
    a) Long break  b) Line break  c) Braces  d) All of these
UNIVERSITY OF THE PUNJAB

Third Semester 2015
Examination: B.S. 4 Years Programme

PAPER: Computer Science-I  
Course Code: COMP-211/ 

TIME ALLOWED: 30 mins.  
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

OBJECTIVE

Q1: Each question has FOUR possible answers. Select the correct answer and encircle it.

1x 10 = 10

i. Which one of the following is not an output device?
   (a) Printer   (b) Monitor   (c) Webcam   (d) both (a) & (b)

ii. Decimal number 45 has its equivalent binary that is equal to:
    (a) 101010    (b) 100001    (c) 101101    (d) 101000

iii. Which of the following is a float data value in C++:
     (a) false    (b) 3.14    (c) 5    (d) true

iv. The statements repeatedly executed from top to the bottom in C++ program flow control is called:
    (a) Operator    (b) sequence    (c) repetition    (d) selection

v. The pictorial representation of solution for a particular problem is called:
    (a) solution    (b) pseudo code    (c) algorithm    (d) flow chart

vi. The file extension of Microsoft word document is:
    (a) .file    (b) .ppt    (c) .txt    (d) .doc

vii. The example of identity verification of a person by a personal characteristic is:
     (a) CNIC    (b) NTN    (c) Biometrics    (d) Roll number

viii. The error that is reported by the compiler in C++ program is called:
      (a) Program error    (b) syntax error    (c) logical error    (d) All

ix. The working memory area of any digital computer is:
    (a) ROM    (b) RAM    (c) keyboard    (d) CPU

x. A computer program that facilitates user to perform his specific task is called:
   (a) operating system    (b) face book    (c) application program    (d) All
### UNIVERSITY OF THE PUNJAB

Third Semester 2015  
Examination: B.S. 4 Years Programme

PAPER: Computer Science-I  
Course Code: COMP-211/1

TIME ALLOWED: 2 hrs. & 30 mins.  
MAX. MARKS: 50

**Attempt this Paper on Separate Answer Sheet provided.**

**SUBJECTIVE**

<table>
<thead>
<tr>
<th>Q.2.</th>
<th>Write short answers of the following Questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What is the difference between a hard copy and soft copy of a document?</td>
</tr>
<tr>
<td>2.</td>
<td>Define the term ‘GB’. What is the difference between a bit and a byte?</td>
</tr>
<tr>
<td>3.</td>
<td>What is a driver program?</td>
</tr>
<tr>
<td>4.</td>
<td>What is an antivirus program?</td>
</tr>
<tr>
<td>5.</td>
<td>What is the difference between application software and system software?</td>
</tr>
<tr>
<td>8.</td>
<td>Why are I/O devices necessary for a modern computer?</td>
</tr>
<tr>
<td>9.</td>
<td>What is difference between a LAPTOP and Desktop computer?</td>
</tr>
<tr>
<td>10.</td>
<td>What is the role of comments in a program and how they are treated by the compiler?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q.3.</th>
<th>How the steps input, process and output are graphically shown in flow chart? Differentiate between the algorithm and a flow chart? Write an algorithm to calculate and print square of a number.</th>
</tr>
</thead>
</table>

| Q.4. | What are the types of the computer memory?  
What are control structures in C++? Write flow chart to describe if-structure. |
|------|----------------------------------------------------------------------------------------|

| Q.5. | Write a program to calculate surface area and volume of sphere, where surface area \( A = 4 \pi r^2 \) and volume \( V = \frac{4}{3} \pi r^3 \)  
Write C++ program to print the series and also display corresponding average and sum of numbers in the range from 1 to 100. How you can print only even numbers in the above series? |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
Answer the following short questions. Each question carries equal marks. (2 x 10) 20

1. Differentiate between Logical and Syntax errors.

2. What are Variables?

3. What is Combo Box?

4. What is String Concatenation?

5. Differentiate between Compiler and Interpreter.

6. What are Option Buttons?

7. What are Control Arrays?

8. What does mean by Build-in Functions?

9. What is Explicit Declaration?

10. What is Control Statement?

Answer following Long Questions. (10 x 3) 30

1. Explain the steps required to create a menu on a form using the menu editor. 10

2. Develop a project to print first 10 odd numbers and their sum. Use the DO...Until Loop. 10

3. Explain MDI and IDE in detail. 10
Multiple Choice Questions.

1. Which are the standard prefixes for the Button and Combo box controls respectively?
   a.) btn and chb       b.) btn and cbo       c.) bto and chb
   d.) bto and cbo

2. An object is composed of:
   a.) properties.       b.) methods.       c.) events.       d.) All of the above.

3. Which is not a property of the Common control class?
   a.) Show       b.) BackColor       c.) Font       d.) ForeColor

4. The Activated event is found only in which object?
   a.) Form       b.) Button       c.) TextBox       d.) Label

5. Which is not an integer data type?
   a.) Single       b.) Byte       c.) Short       d.) Integer

6. Which is a valid statement for declaring a variable?
   a.) Const Form As Integer       b.) Const myForm As Integer
   c.) Dim Form As Integer       d.) Dim myForm As Integer

7. Which function displays a pop-up window?
   a.) MsgBox       b.) InputBox
   c.) TextBox       d.) Both a and b.

8. Which statements are optional in an If...Then statement?
   a.) If       b.) Then       c.) Else       d.) Both a and b.

9. In the For...Next statement the default value for the Step is:
   a.) -1       b.) 0
   c.) 1       d.) There is no default for the step value.

10. How many RadioButtons in a Group Box can be selected at the same time?
    a.) 0       b.) 1       c.) 2       d.) 3
### Subjective

**Q.2.** Write short answers of the following Questions:

i. Discuss with example the following terms in C++:
   a) `int`
   b) `float`
   c) `getch()`
   d) garbage collection

ii. Write syntax for a user defined function in C++? What is advantage of a user define function? Write C++ program to calculate area of a circle using function.

iii. Write C++ program code segment for the following:
   a) to calculate and print sum of 100 (integer) numbers
   b) to calculate and print force value by taking inputs for mass and acceleration values
   c) to determine and print the values for transpose of a matrix
   d) to calculate factorial of a number read from the user

**Q.3.** Suppose v, t and d are three linear arrays each of length is ten representing velocity, time and distance respectively. Write a program which reads in values for v and t & prints values of d. Also print values of total distance and average distance values.

Write program to calculate factorial of a number (take input from the user).

**Q.4.** What is a multidimensional array in C++? Suppose A, B, C, D and E are matrices (3x3). Write C++ program which reads in entries of A and B and prints out the entries of:  
(i) \( C = A + B \)
(ii) \( D = 4A - 2B \)
(iii) \( E = B^t \) (i.e., Transpose of B).

**Q.5.** For an object thrown at an angle \( \Theta \) and initial velocity \( \mathbf{u} \), the horizontal range \( \mathbf{R} \) is given by:

\[
R = \frac{u^2 \sin(2\theta)}{g}, \text{ where } g = 9.8 \text{ m/s}^2 \text{ and } u = 120 \text{ m/s, with } h = 10.
\]

Write a program to calculate and print out \( \mathbf{R} \) against angle \( \Theta \) values using arrays. Take angle varies from \( 30^\circ \) to \( 60^\circ \) in step size of \( 3^\circ \). Also calculate maximum value of \( \mathbf{R} \) calculated for the above data.
Q1: Each question has FOUR possible answers. Select the correct answer and encircle it.

1x 10 = 10

i. To include a header file in C++ we can use:
   (a) add (b) + (c) # (d) both (a) & (b)

ii. Which of the following is an equality operator in C++?
    (a) == (b) = (c) >= (d) equal

iii. Which of the following is a repetition control structure in C++:
     (a) switch (b) if (c) while (d) both (a) & (b)

iv. The statements executed from top to the bottom with repeating some of the statements
    in C++ program can be achieved by:
     (a) getch() (b) sequence (c) for (d) if

v. In C++, the scope of a for loop can be defined by:
   (a) { (b) start and end (c) { (d) All

vi. If x = 15 and y = 14, then for statement “x <= y” which of the following result is true
   (a) x and y both are 1 (b) x is greater than y (c) true (d) false

vii. A collection of consecutive and same memory location is called:
     (a) integers (b) characters (c) array (d) function

viii. The error reported by the compiler with mistake in the C++ programming rules is called:
      (a) Program error (b) syntax error (c) logical error (d) All

ix. i--, is called:
    (a) prefix operator (b) postfix operator (c) C++ operator (d) All

x. Every C++ program must contain:
    (a) main function (b) integer variable (c) cout (d) All