UNIVERSITY OF THE PUNJAB

B.A. / B.Sc. Part – I
Annual Examination – 2017

Roll No. ....

Subject: **Computer Studies-I**
PAPER: **A (Introduction to IT and Computer Programming)**

TIME ALLOWED: 3 hrs.
MAX. MARKS: 70

NOTE: Question # 1 in Part – I and Question # 5 in Part-II are compulsory. Attempt TWO of the remaining THREE questions in Part-I and Part-II.

For objective type questions (Question#1 and Question#5), you do not need to write the question statements. You are only required to write the part number (e.g. 1, 2, 3, etc.) and your selected answer letter (e.g. A or B or C or D) against it. Cutting and/or overwriting should be avoided. You **must** provide answers to the questions in the sequence (from 1 to 15)

Part-I (Introduction to Information Technology)   Max Marks: 35

Q # 1 (Do all parts in this question)   (15)

1. The _____ is responsible for controlling various computer operations.

   (A) Input Unit   (B) Output Unit   (C) Control Unit   (D) Storage Unit

2. A computer program that converts an entire program into machine language is called a/an

   (A) Interpreter   (B) Simulator   (C) Compiler   (D) Commander

3. _____ is the measurement of things such as fingerprints and retinal scans used for security access.

   (A) Biometrics   (B) Bio measurement   (C) Computer security   (D) Smart machinery

4. In a computer, most of the processing takes place in

   (A) Memory   (B) RAM   (C) Motherboard   (D) CPU

5. ROM chips, called _____, contain permanently written data, instructions, or information.

   (A) Memory cache   (B) Registers   (C) Firmware   (D) Transistors

6. Optical discs store items by using

   (A) Laser beam   (B) Electron gun   (C) Magnetic beam   (D) Electric beam

7. Which of the following does not store data permanently?

   (A) ROM   (B) RAM   (C) Floppy Disk   (D) Hard Disk

8. Computers have secondary storage devices also known as_____

   (A) Registers   (B) Auxiliary storage   (C) RAM   (D) Cache storage

9. A DVD is an example of a (n)-

   (A) Hard disk   (B) Optical disc   (C) Output device   (D) Solid-state storage device

10. Trackball is a(n)_____

    (A) Input device   (B) Output device   (C) Software   (D) Programming language

11. Which of the following are input devices?

    (A) Keyboard   (B) Mouse   (C) Card reader   (D) All of these

12. As compared to command line operating system, GUI operating system is:

    (A) More Efficient   (B) Easier to use   (C) More reliable   (D) All of the given

13. A Wi-Fi network uses _____ signals to provide high speed internet connection.

    (A) radio   (B) optical   (C) ultraviolet   (D) microwave

14. An IP address consists of _____ groups.

    (A) Two   (B) Four   (C) Six   (D) Eight

15. _____ is a unique number associated with each computer making it uniquely identifiable amongst all the computers connected to the Internet.

    (A) IP address   (B) MAC address   (C) Inode   (D) None of the above

Q# 2: Explain the following types of input mechanisms: (10)

    a) Optical scanning   c) Magnetic stripe card input
    b) Biometric input   d) Bar Code Readers

Q# 3:

    a) Describe the basic operations of machine cycle.   (5)
    b) Briefly explain different quality characteristics of display devices.   (5)

Q# 4: What is computer network? Discuss the working of modem, hub, switch and router.   (10) **(P.T.O.)**

Q # 5 (Do all parts in this question)   (15)

1. What is the value of integer variable x after the statement x = 10*2+5 is executed?

   (A) 10   (B) 20   (C) 25   (D) 70

2. Let A = 10 and B = 20, then the expression **(A>= 10)AND NOT(B=20)** evaluates to _____

   (A) True   (B) False

3. _____ variables retains or preserves value even when a procedure ends.

   (A) Static   (B) Dynamic   (C) Virtual   (D) Currency

4. You declare a named constant with _____ keyword.

   (A) Constant   (B) Const   (C) Dim   (D) NamedConstant

5. _____ function translates a numeric value to a variable.

   (A) Message   (B) Build In.   (C) Val   (D) Mod

6. IDE stands for _____

   (A) Integrated Development Environment   (C) Integer Development Environment
   (B) Information Development Environment   (D) Internal Development Environment

7. The list of forms will display in tree like structure in _____ window.

   (A) form   (B) project explorer   (C) property   (D) form layout

8. _____ event will execute automatically at the activation of the tool.

   (A) GotFocus   (B) LostFocus   (C) Enabled   (D) Click

9. Like text box, _____ is another tool used for display / output the information.

   (A) input box   (B) frame   (C) button   (D) message box

10. In a list box, _____ function is used to insert item to the list.

    (A) addlist()   (B) additem()   (C) addcount()   (D) adddata()

11. _____ displays a list of all forms and modules making up your application.

    (A) Project window   (B) Properties window   (C) Form layout window   (D) All of the given

12. Which of the following properties determines the number of elements in an array?

    (A) Size   (B) Elements   (C) Length   (D) NumberOfElements

13. _____ property designates the text appearing in the form's title bar.

    (A) Text   (B) Name   (C) Caption   (D) None of these

14. Which of the following is not a mode in which Visual Studio operates?

    (A) Design   (B) Break   (C) Run   (D) Turbo

15. You may change a control's Text property with code.

    (A) True   (B) False

Q# 6: Write a VB 6 program that asks the user to enter number of electricity units consumed and computes the electricity bill on the basis of the following tariff: (10)

Units	Tariff
1 to 100	7 Rs.
101 to 300	10 Rs.
Above 300	13 Rs.

After computing the electricity cost, 16% sale tax should be added in it to obtain the total payable amount by the consumer.

Q# 7: Write a program that takes temperature of 7 days of the week. The days of the week Mon, Tue, ..., Sun are represented by numbers 0,1,...,6. The program should display the average temperature of the week, minimum, maximum temperatures and the day names on which temperature was minimum and maximum.   (10)

Q# 8:

a) Write a program to find the index of a given number from an array of 100 elements. The program should display "Number not found" if the given number is not present in the list.   (6)

b) What is the difference between the following: (4)
   i.   Object and control
   ii. Procedure and function