



UNIVERSITY OF THE PUNJAB

Roll No.

First Semester 2017
Examination: B.S. 4 Years Programme

PAPER: Computer (Introduction and Applications)
Course Code: COMP-111/ CMP-11106 / 11019

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Section I: Objective

Marks: 10

Q1. Chose at least one correct answer

- The most fastest computer is known as
 - Mainframes
 - Servers
 - Super Computers
 - Embedded Computers
- The component which directs and coordinates operations in computer is
 - CU
 - ALU
 - Register
 - Motherboard
- Which storage location is the part of processor
 - RAM
 - L3 Cache
 - Registers
 - Hard Disk
- A socket which hold adapter card on the motherboard is
 - Drive bay
 - Front side bus
 - Parallel port
 - Expansion Slots
- A keyboard design to reduce wrist injuries is called
 - Cordless
 - Ergonomic
 - Air
 - Gaming
- A pressure-sensitive digital pen used as primary input devices in
 - PDA's
 - Smart Phones
 - Tablet PCs
 - Desktop
- AutoCorrect was originally designed to replace _____ words as you type.
 - Misspelled
 - Grammatically incorrect
 - Short, repetitive
 - None of the above
- To make a number in cell C1 10% smaller than the number in C3 you enter
 - =C3*1.10
 - =C3*.90
 - +C3*110
 - =C3%10
- There are three types of data found in a spreadsheet
 - numbers formulas, labels
 - equations, data, numbers
 - words, numbers, labels
 - data, words, numbers
- Which option can be used to set custom timings for slides in a presentation?
 - Slider Timings
 - Slider Timer
 - Rehearsal
 - Slide Show Setup



UNIVERSITY OF THE PUNJAB

First Semester 2017

Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer (Introduction and Applications) TIME ALLOWED: 2 hrs. & 30 mins.
Course Code: COMP-111/ CMP-11106 / 11019 MAX. MARKS: 50

Attempt this Paper on Separate Answer Sheet provided.

Section II: Subjective

Q2. Give brief answers to the following questions (Short Questions)

Marks: (10*2=20)

1. Differentiate between Webpage and URL with example.
2. Differentiate between Dual-Core Microprocessors, Quad-Core Microprocessors.
3. What is Machine Cycle?
4. Define factors which play key role to determine the Picture Quality.
5. Differentiate between LCD and LED.
6. Define Web Browser with two examples.
7. Differentiate between Database and Database Management System.
8. Define CLI and GUI.
9. Define Modulation and Demodulation.
10. Differentiate between Excel Work Book and Work Sheet.

Q3. Give detail answers to the following questions (Long Questions)

Marks: 30

1. Write a brief note on Types of Operating Systems (10)
2. Write a note on Scanners and Reading Devices? (10)
3. Write down the procedure to create the following Table also write how to Change the table background color, border color, border style, columns height and rows width. (10)

INSTITUTE OF BUSINESS ADMINISTRATION			
MS WORD		MS EXCEL	
THEORY	PRACTICAL	THEORY	PRACTICAL
66	88	99	87



UNIVERSITY OF THE PUNJAB

Roll No.

First Semester 2017

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. Microsoft Access is a _____			
A. Database Management System	B. Word Processing	C. Spread Sheet Software	D. None of Above
2. A Terminal consist of			
A. keyboard mouse, printer	B. Keyboard ,monitor	C. mouse ,monitor	D. system unit and I/O devices
3. Which of the following is not inside the system unit			
A. RAM	B. Monitors	C. Hard Disk	D. Adapter Cards
4. High resolution means			
A. Greater number of pixels	B. Larger pixel size	C. Accurate voice recognition	D. Bigger picture
5. Which one of the following is a non-impact printer?			
A. Line Printer	B. Ink-jet Printer	C. Dot-matrix	D. Active matrix Printer
6. The _____ is used by the tablet PC to write on the screen.			
A. finger	B. mouse	C. digitizer	D. stylus
7. _____ computers represent data as variable points along a continuous spectrum of values			
A. Analog	B. Digital	C. Precise	D. Mainframe
8. A type of storage that does not accept new information ?			
A. Hard Drive	B. Removable Media	C. Random Access Memory	D. Read Only Memory
9. A _____ is an example of a solid-state memory device.			
A. flash memory drive	B. CD-RW	C. floppy disk	D. hard disk
10. The _____ is the electronic pathway between components in the computer.			
A. CPU	B. bus	C. RAM	D. register



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First Semester 2017

Examination: B.S. 4 Years Programme

Roll No.

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. Explain Second Generation of Computers?
2. Differentiate between Analog and Digital Computers?
3. Explain High Level Languages?
4. Explain Plotters?
5. Differentiate between WAN and LAN?
6. Differentiate between system software and application software?
7. What is Hard Disk?
8. What is ALU?
9. Differentiate between Database and Database Management System.
10. Differentiate between Excel Work Book and Work Sheet.

Answer following Long Questions. (10 x 3) 30

1. What is Computer? Describe types of Computers? **10**
2. Define storage devices, explaining all major types of storage devices. **10**
3. Describe and explain method of designing database in MS Access by using an example. Also Write any two features of MS Excel with their uses and applications **10**



Attempt this Paper on this Question Sheet only.

OBJECTIVE TYPE

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

- I. _____ is a device that translates digital signals into analog signals and vice versa.
 - a) Modem
 - b) Computer
 - c) Language decoder
 - d) router

- II. _____ is NOT an input device.
 - a) printer
 - b) scanner
 - c) keyboard
 - d) touchpad

- III. F1 is a shortcut key for:
 - a) Help
 - b) Paste
 - c) Find
 - d) close a document

- IV. _____ is used to copy formatting from one place and apply it to another.
 - a) Format painter
 - b) Format copier
 - c) Paste
 - d) None of the above

- V. _____ is the type of page orientation.
 - a) Portrait
 - b) Horizontal
 - c) Vertical
 - d) Traditional

- VI. _____ are motion effects that occur in Slide Show view when you move from one slide to the next during a presentation.
 - a) Slide transition
 - b) Slide animation
 - c) Slide design
 - d) Slide background

- VII. _____ contain formatting, positioning, and placeholders for all of the content that appears on a slide.
 - a) Slide design
 - b) Slide layout
 - c) Slide master
 - d) Slide show

- VIII. =A&2:B5 is an example of _____ reference.
 - a) Absolute cell reference
 - b) Mixed cell reference
 - c) Relative cell reference
 - d) None of the above

- IX. _____ Formula returns the current date and time.
 - a) Now
 - b) Today
 - c) Date
 - d) Date & Time

- X. From the followings options, which is NOT a true format for SUM formula?
 - a) =sum(a1:b5:c5)
 - b) =sum(a1,b5,c5)
 - c) =sum(a1:b5,c5)
 - d) =sum(a1:b5,c1:c5)



UNIVERSITY OF THE PUNJAB

First Semester 2017

Examination: B.S. 4 Years Programme

Roll No.

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.

SUBJECTIVE TYPE

Q.2 Answer the following short questions. (20 marks)

- I. What is personal computer? What are different types of personal computer?
- II. What is the difference between application software and system software?
- III. Give two examples of analog computer.
- IV. What are the functions performed by the CU (control unit) during a machine cycle?
- V. Write down steps to insert tabs in MS-WORD.
- VI. How slide animations work in MS-POWERPOINT.
- VII. Enlist at least 5 (five) areas of chart.
- VIII. Define router.
- IX. What is a web browser?
- X. State two uses of internet in education.

Give answers the following questions:

Q.3 Give examples of following formulas in MS-EXCEL. (10 marks)

(a) count blank (b) average (c) maximum (d) today (e) mixed reference

Q.4 What is volatile memory? Explain different types of RAM in detail. (10 marks)

Q.5 What is programming language? Explain different programming languages in detail. (10 marks)



UNIVERSITY OF THE PUNJAB

Roll No.

Second Semester - 2017
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)

1) Software that defines a database, stores the data, supports a query language, produces reports and creates data entry screens is a:

- A) data dictionary
B) database management system (DBMS)
C) decision support system
D) relational database

2) The separation of the data definition from the program is known as:

- A) data dictionary
B) data independence
C) data integrity
D) referential integrity

3) In the client / server model, the database:

- A) is downloaded to the client upon request
B) is shared by both the client and server
C) resides on the client side
D) resides on the server side

4) The traditional storage of data that is organized by customer, stored in separate folders in filing cabinets is an example of what type of 'database' system:

- A) Hierarchical
B) Network
C) Object oriented
D) Relational

5) The database design that consists of multiple tables that are linked together through matching data stored in each table is called a:

- A) Hierarchical database
B) Network database
C) Object oriented database
D) Relational database

6) When building a database, the data dealing with an entity is modeled as a:

- A) attribute
B) class
C) object
D) table

7) An abstract data type is used to:

- A) link data from remote database
B) prevent users from getting to database security information
C) provide a conceptual view of the data so it is easier to understand
D) store complex data structure to represent the properties of objects

8) One of the first phases of a new database project that involves critical areas, expensive hardware or software within the organization is called _____.

- A) analysis phase
B) feasibility study
C) investigation stage
D) system design

9) Two different terms are used to describe the characteristics of interest for an entity. They are attributes and:

- A) classes
B) entities
C) properties
D) traits

10) Database system modelers use this type of diagram to graphically represent both the data structure and how the different objects are interrelated.

- A) Class Diagram
B) Data Diagram
C) Object Diagram
D) Table Relationship Diagram



UNIVERSITY OF THE PUNJAB

Second Semester - 2017
Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer -II
Course Code: COMP-103

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

Attempt this Paper on Separate Answer Sheet provided.

Q2. Give Short answer of the following questions.

Marks (2*10=20)

1. Define Normalization?
2. What is functional dependency?
3. How many components of the DBMS?
4. Define stored attributes and derived attributes?
5. What is an ERD?
6. Difference between Generalization and Specialization?
7. Explain the term of Data Integrity?
8. Difference between data and information?
9. Define metadata?
10. Difference between primary key and alternate key?

Subjective Type

Marks(3*10=30)

Q3. Discuss some advantages and disadvantages of Database system?

Q4. Explain Three schema architecture with diagram?

Q5. Draw and explain an ERD for college admission system?



UNIVERSITY OF THE PUNJAB

Roll No.

Second Semester - 2017
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. _____ computers represent data as variable points along a continuous spectrum of values
A. Analog B. Digital C. Precise D. Mainframe
2. A type of storage that does not accept new information ?
A. Hard Drive B. Removable Media C. Random Access Memory D. Read Only Memory
3. ----- is a collection of unprocessed items, which can include text, numbers, images, audio and video.
A. Data B. Computer C. Information D. Instruction
4. The term ----- refers to the sharpness or clarity of an image.
A. Width B. Resolution C. Dot pitch D. Depth
5. Microsoft Excel is a _____
A. Word Processing Management System B. Database C. Spread Sheet software D. None
6. _____ is a collection of individual programs available together as a unit
A. Shareware B. package software C. A software unit D. All of above
7. High resolution means _____
A. greater no of pixels B. bigger picture C. size D. All of above
8. The _____ is the electronic pathway between components in the computer.
A. Bus B. CPU C. RAM D. Register
9. The term refers to a circular portion of the disk is
A. Machine Cycle B. Sector C. Cylinder D. Track
10. Which one of the following is a non-impact printer?
A. Active matrix Printer B. Dot Matrix C. Line Printer D. Ink Jet Printer



UNIVERSITY OF THE PUNJAB

Second Semester - 2017
Examination: B.S. 4 Years Programme

Roll No.

PAPER: Introduction to Computers (Revised)
Course Code: COMP-121

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 are Nested Functions in Excel?
2. What is Web Browser?
3. What does mean by Device Driver Software?
4. What is Modem also name its types?
5. What is operating system?
6. What is WAN?
7. What are super computers?
8. Explain High Level Languages?
9. Explain Plotters?
10. Explain Modes of Data Transmission?

Answer following Long Questions. (10 x 3) 30

1. What is System Unit? Explain in detail?
2. Define storage devices, explaining all major types of storage devices?
3. Describe and explain Creating Charts in Excel with example. Also Write any two features of MS Power point with their uses and applications?



UNIVERSITY OF THE PUNJAB

Roll No.

Third Semester, 2017
Examination: B.S. 4 Years Programme

PAPER: Computer-III
Course Code: COMP-201/CMP-21316

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

OBJECTIVE

Question # 1

[10*1 MARKS]

Select one correct option only:

1. JSP embeds in in

- A) Servlet, HTML B) HTML, Java C) HTML, Servlet D) Java, HTML

2. The class string belongs to package.

- A) java.awt B) java.lang C) java.applet D) java.string

3. Who invented Java?

- A) Netscape B) Microsoft C) Sun D) None of these

4. Which JDBC driver Type(s) can be used in either applet or servlet code?

- A) Both Type 1 and Type 2 B) Both Type 1 and Type 3
C) Both Type 3 and Type 4 D) Type 4 only

5. How many copies of a JSP page can be in memory at a time?

- A) One B) Two C) Three D) Unlimited

6. To prevent any method from overriding, we declare the method as

- A) static B) const C) final D) abstract E) none of the above

7. Given a class named Book, which one of these is a valid constructor declaration for the class?

- A) Book(Book b) { } B) Book Book() { } C) private final Book() { }
D) void Book() { } E) abstract Book() { }

8. Which of the following is valid to open a database connection?

- A) Connection con = DriverManager.getConnection(url, userid, password);
B) Connection con = DriverManager.getConnection();
C) Connection con = new DriverManager.getConnection();
D) Connection con = DriverManager.openConnection(url);
E) Connection con = new DriverManager.openConnection();

9. programs automatically connects to web sites and download documents and save them to local drive.

- A) Web Servers B) Web Downloading Utilities C) None of these D) Offline Browsers

10. To design webpages we need to use

- A) Server B) XML C) Browser D) HTML



UNIVERSITY OF THE PUNJAB

Third Semester 2017
Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer-III
Course Code: COMP-201/CMP-21316

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

Attempt this Paper on Separate Answer Sheet provided.

SUBJECTIVE

Question # 2

[5*4 MARKS]

Answer the following short questions:

- Explain the difference between Overloading and Overriding.
- What is the difference between JDK and JVM?
- Describe significances of JDBC.
- Make clear difference between class and object.
- What are access modifiers in JAVA?

Question # 3

[5*6 MARKS]

Answer the following long questions:

- What do the elements mean in syntax given for URL in HTML?
- Write an HTML table tag sequence that outputs the following:

50 pcs 100 500

10 pcs 5 50

- What are the main steps in java to make JDBC connectivity?
- Explain JSP Action Elements or Action Tags?
- Write a code to change the color of the background or text? Explain the elements involved in it.



UNIVERSITY OF THE PUNJAB

Roll No.

Third Semester 2017
Examination: B.S. 4 Years Programme

PAPER: Computer Science-I
Course Code: COMP-211/IT-21335

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. The following refers to the series of input, process and storage activities:
(a) Data type (b) email (c) Internet (d) information processing cycle
- ii. Decimal number 32 has its equivalent binary that is equal to:
(a) 110111 (b) 10001 (c) 100000 (d) 0101000
- iii. Which of the following is a float data value in C++:
(a) false (b) 5.5 (c) 4 (d) true
- iv. The statements repeated and executed from top to the bottom in C++ program flow control is called:
(a) Operator (b) sequence (c) repetition (d) selection
- v. The arranged numbers of steps written to solve for a particular problem is called:
(a) solution (b) pseudo code (c) algorithm (d) flow chart
- vi. The file extension of Microsoft document file 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. Which one of these is not an example of storage devices?
(a) RAM (b) Tape (c) floppy (d) DVD
- ix. The working speed of a computer is determined by:
(a) ROM (b) RAM (c) keyboard (d) CPU
- x. A computer program that facilitates user to share information to social community is:
(a) Power point presentation (b) face book (c) application program (d) All



UNIVERSITY OF THE PUNJAB

Third Semester 2017

Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer Science-I
Course Code: COMP-211/IT-21335

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

Attempt this Paper on Separate Answer Sheet provided.

SUBJECTIVE

Q.2.	<p>Write short answers of the following Questions:</p> <ol style="list-style-type: none"> 1 What is the difference between a program and an algorithm? Write an algorithm to calculate square of a number (e.g., $b = a^2$) 2 Define the term “KB” and ‘GB’. What is the difference between a bit and a byte? 3 Differentiate between Hardware and Software. Write examples for each. 4 What are the necessary I/O devices for your computer? Name at least one single device that can act as input as well as output device. 5 Comment on the following in C++: int, float, for and if 	20= 4x5
Q.3.	<p>Write program to read a,b and c values for a triangle sides and calculate area such that $A = \sqrt{s(s-a)(s-b)(s-c)}$, where</p> $s = \frac{(a+b+c)}{2}$ <p>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?</p>	10
Q.4.	<p>The time period of a simple pendulum is given by: $T = 2\pi\sqrt{\frac{l}{g}}$.</p> <p>Write program to determine and print the time (T) against length (l) values. Use length (l) varies from 1 to 20 meters in steps of 5. Take $g= 9.8 \text{ m/s}^2$.</p> <p>What is a variable declaration in C++? Describe rules for giving variable a name? Declare the variables x and y of integer type.</p>	10
Q.5.	<p>Write a flow chart to calculate surface area and volume of rectangular box with sides a, b and c, where surface area = 2(ab +bc + ca), and volume = a b c.</p> <p>Write a program to calculate area and circumference of a circle, where area $A= \pi r^2$ and circumference $C= 2 \pi r$</p>	10



UNIVERSITY OF THE PUNJAB

Roll No.

Fourth Semester - 2017
Examination: B.S. 4 Years Programme

PAPER: Computer -IV
Course Code: COMP-203 / CMP-22316

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper on this Question Sheet only.

Choose correct option.

1. The visual language includes -----for representing visual sentences.
a. Icons b. Visual language c. Both a & b d. None of Above.
2. 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
3. Which statements are optional in an If --- Then statement?
a. If b. Then c. Else d. Both a and b.
4. Debug window is the same as ----- window.
a. Object b. form c. Procedure d. Code
5. ----- is a data type that can be used to declare a text of maximum 10 million characters.
a. Simple Precision b. Data c. String d. Numeric
6. A Menu can include a maximum of -----level of sub menus.
a. 2 b.6 c. 4 d.8
7. Option button can be grouped in a -----control.
a. Label b. Text Box c. Frame d. Check Box
8. ----- Box provides a set of choices to the user.
a. command b. List c. Combo d. Text
9. ----- function translates a numeric value to a variable.
a. Message b. Val c. Build in d. Mod
10. Dynamic arrays can be declared when the user may not know the-----of the array at design time.
a. exact column b. exact size c. exact value d. exact variable.



UNIVERSITY OF THE PUNJAB

Fourth Semester - 2017
Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer -IV
Course Code: COMP-203 / CMP-22316

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 IDE?
2. Differentiate between Logical and Syntax errors?
3. Differentiate between Compiler and Interpreter?
4. Explain MDI?.
5. What is Multidimensional Arrays?
6. Explain Database Programming?
7. What is Modality?
8. What is pop up menu?
9. Explain Select Case in control statement?
10. Differentiate between save and save as?

Answer following long questions. (10x 3) 30

1. Explain the various control tools in the tool box.
2. Explain Event Procedure and Function Procedure.
3. Write a program to read in 10 integers and display the sorted integers in descending order?

UNIVERSITY OF THE PUNJAB

Roll No.



Fourth Semester - 2017
Examination: B.S. 4 Years Programme

PAPER: Computer Science-II
Course Code: COMP-212 / IT-22335

TIME ALLOWED: 30 mins.
MAX. MARKS: 10

Attempt this Paper part on this Question Sheet only.
Objective

Q1: Each question has FOUR possible answers. Select the correct answer and encircle it.
1x 10 = 10

- i. To use `sqrt()` in main function we need in C++ the following header:
(a) `sqrt().h` (b) `math.h` (c) `iomani.h` (d) both (a) & (b)
- ii. Which of the following is used to print 4th row 5th column in a matrix `a`?
(a) `cout<<a[4,5]` (b) `cout<<a[3][4]` (c) `cout<<a[3,4]` (d) `cout<<a(4)(5)`
- iii. Which of the following is not a selection control structure in C++:
(a) `while` (b) `for` (c) `if` (d) both (a) & (b)
- iv. What is output for the statements: `for (int i =1; i<=5; i= i++)`
`cout<<(i-1)<<" "`;
(a) 1 2 3 4 5 (b) 0 1 2 3 4 (c) 0 1 2 3 4 5 6 (d) 3 4 5
- v. In order to read a value into 8th element place of an array the following is correct:
(a) `A[4] = 8;` (b) `cin>>A[8]` (c) `cin>>A[7]` (d) `A[8] = 8;`
- vi. If `x =5` and `y= 2`, then for statement "`z = -2*x + 5*y`" which result is true
(a) 20 (b) 1 (c) 0 (d) -1
- vii. To print an element at 3rd row and 3rd column in a matrix `K` the following is correct:
(a) `cout<<K[2][2];` (b) `cout<<K(2)(2);` (c) `cout<<K[3][3];` (d) `cout<<K(3)(3);`
- viii. A function named `S` with `float` return and argument type, the following call to the function is correct:
(a) `k1 = S(k2);` (b) `S(k1);` (c) `S();` (d) `k1 = S();`
- ix. if `a = 11` and `b= 13` then for "`b > 2*a`" the following is correct for:
(a) -9 (b) 0 (c) false (d) true
- x. C++ program considers variables `int K;` and `int k;` to be:
(a) same functions (b) same variables (c) different variables (d) All



UNIVERSITY OF THE PUNJAB

Fourth Semester - 2017
Examination: B.S. 4 Years Programme

Roll No.

PAPER: Computer Science-II
Course Code: COMP-212 / IT-22335

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

Attempt this Paper on Separate Answer Sheet provided.

Subjective

Q.2.	Write short answers of the following Questions: i. Discuss with example the following terms in C++: a) switch (b) while (c) pow() ii. Write program to print numbers and also display corresponding sum for the decreasing numbers in the range from 22 to 2. iii. Write C++ program code segment for the following: (a) to calculate and print circumference of a circle. (b) To print k values by taking inputs for displacement and force values from the user (use $F = -kx$). (c) To read and print square values of a linear array. (d) To read and print a matrix A with 7 rows and 2 columns (e) To display table of the numbers: from 5 to 9	6 4 10
Q.3.	What are random numbers? Write syntax for random number generation in C++. Write C++ program to print 50 pairs of points as x & y coordinates for an object tracing Brownian movement. Write a program to calculate length of a simple pendulum. (take inputs from the user).	8+2
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) $C = 17A + 24B$ and (ii) $D = 5A - 2B$. (iii) $E = 5 + 3C'$. (where C' is transpose of C).	2+8
Q.5.	Write syntax for a user defined function in C++? What is advantage of a user define function? For a pendulum, the time period T is given by: $T = 2\pi \sqrt{\frac{l}{g}}$, where $g=9.8 \text{ m/s}^2$ and length (l) varies from 0.2 to 0.8, with step size of 0.05. Write a program to print out T against length values using arrays. Also calculate maximum and minimum values of T.	2+8