

**KARNATAKA STATE PRE-UNIVERSITY EDUCATION**  
**II PU Computer Science Blueprint**

UNIT	DESCRIPTION	VSA (1 Mark)	SA (2 Marks)	LA (3 Marks)	E (5 Marks)	Total Marks
Chapter 1 5 Hrs	Typical configuration of Computer system	1(mcq)	-----	1	-----	4
Chapter 2 10 Hrs	Boolean algebra	1(mcq)	2	-----	1	09+1
Chapter 3 5 Hrs	Logic Gates	1(mcq)	-----	1	-----	04
Chapter 4 15 Hrs	Data structures	1(mcq)	-----	1	2	14
Chapter 5 3 Hrs	Review of C++ covered in First PUC	-----	-----	-----	-----	----
Chapter 6 4 Hrs	OOP concepts	----	1	----	1	07
Chapter 7 6 Hrs	Classes and objects	1(mcq)	-----	-----	1	06
Chapter 8 3 Hrs	Function Overloading	1(mcq)	-----	-----	1	05+1
Chapter 9 8 Hrs	Constructors and Destructors	1(mcq)	1	----	1	07+1
Chapter 10 8 Hrs	Inheritance	1(mcq)	-----	-----	1	05+1
Chapter 11 7 Hrs	Pointers	1(mcq)	-----	1	-----	04
Chapter 12 6 Hrs	Data File handling	-----	1	1	-----	05
Chapter 13 8 Hrs	Database concepts	1(mcq) 5x1-Fill-in blank	1	1	1	11+5
Chapter 14 12 Hrs	SQL commands	1(mcq)	1	-----	1	07+1
Chapter 15 10 Hrs	Networking Concepts	2(mcq)	1	----	1	9
Chapter 16 5 Hrs	Internet and Open source concepts	1(mcq)	----	1	-----	4
Chapter 17 5 Hrs	Web Designing	1(mcq)	-----	1	-----	4
	Total Marks	10+10	16	24	55	115
	Total No of Questions to be answered	1x20=20	2x4/8=08	3x4/8=12	5x6/11=30	70/47

- NOTE:**
1. Questions should be direct
  2. The answers should be present in the prescribed textbook by PUE
  3. 40% - Simple, 40% - Average and 20% - Difficult questions
  4. Questions should be according to Blueprint

## II PU COMPUTER SCIENCE – MODEL PAPER

### PART – A

Answer all the questions. Each question carries one mark.

1 x 20 = 20

I Select the correct answer from the choices given: (*Repeated answers will not be considered*)

- Which among the following is the fastest memory in a computer that holds information?  
a) Register  
b) Cache  
c) Main memory  
d) RAM
- The other name of Boolean algebra is \_\_\_\_\_  
a) Switching algebra  
b) Relational Algebra  
c) Digital Algebra  
d) None of the above
- The other name of NOT gate is \_\_\_\_\_  
a) Neglect gate  
b) Inverter gate  
c) XOR gate  
d) XNOR gate
- The data structure that allows the insertion, as well as the deletion from both the ends, are:  
a) String  
b) Linked List data structure  
c) Stack data structure  
d) Dequeue data structure
- What is the other name used for functions inside a class?  
a) Member variables  
b) Member functions  
c) Class functions  
d) Class variables
- Function cannot be overloaded when \_\_\_\_\_  
a) Function names are same  
b) Number of parameters are different  
c) Number of parameters are same  
d) Data types of parameters are different
- The symbol used with constructor is \_\_\_\_\_  
a) \$  
b) &  
c) Delta  
d) ~
- Base class is \_\_\_\_\_  
a) a sub class  
b) inherited class  
c) Main class  
d) First class
- Which of the following is the correct way to declare a pointer?  
a) int \*ptr  
b) int ptr  
c) int &ptr  
d) All of the above
- \_\_\_\_\_ is called information.  
a) Raw fact  
b) collection of data  
c) Unprocessed data  
d) Processed data
- SQL is \_\_\_\_\_.  
a) Theoretical Language  
b) Procedural Language  
c) Structured Language  
d) Unstructured Language



**PART – C**

**Answer any FOUR questions. Each question carries three marks.**

**3 x 4 = 12**

29. Briefly explain any three types of mother board.
30. Write the logic diagram and the truth table for XOR gate.
31. Give the memory representation of stack data structure.
32. Mention any three advantages of pointers.
33. What is a data file? Differentiate between text and binary files.
34. Give the meaning for any three components of E-R diagram.
35. What is e-commerce? Explain any one type of e-commerce.
36. Explain any three table tags in HTML.

**PART – D**

**Answer any SIX questions. Each question carries five marks.**

**5 x 6 = 30**

37. Give the Boolean function  $F(A,B,C,D) = \Sigma(0,2,5,7,8,10,13,15)$ .  
Reduce it by using Karnaugh map (K-Map).
38. Explain any five operations performed on primitive data structure.
39. Write an algorithm to delete a data element from an array.
40. Give the differences between procedural programming and object-oriented programming.
41. With an example explain member function inside the class definition.
42. What is a friend function? Mention the characteristics of a friend function.
43. What is a parameterized constructor? Mention the advantages of parameterized constructor.
44. What is inheritance? Explain any two types of inheritance.
45. Differentiate between manual and electronic data processing.
46. Explain CREATE and UPDATE commands in SQL.
47. Explain the following:
  - i. SMS
  - ii. E-mail
  - iii. Voice mail
  - iv. Chat
  - v. Video conference

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