

United Academy  
**Kumaripati, Lalitpur**  
**Pre-Board Exam 2080**

**Year: 2080**

**C Programming**

**Semester: II**

**Bachelor/Second/Humanities & Social Science**

**BCA**

Candidates are requested to answer the questions in their own words as far as possible.

**GROUP-B**

**Attempt any six questions :(6\*5=30)**

1. Define operator. Explain any four types of operators available in C? 5
2. Write a program in C to find all possible roots of quadratic equation  $ax^2+bx+c=0$ . 5
3. Define keyword and identifiers. Explain rules for defining valid identifiers? 2+3
4. Write a program to read two integer X and Y and swap the contents of the variable X and Y using function. 5
5. Differentiate between while loop and do while loop with loop. 5
6. WAP to read a number from keyboard and check whether it is a palindrome or not. 5
7. WAP that check whether entered number is Armstrong. 5

**Group –c**

**Attempt any two questions. (2\*10=20)**

1. What is one dimensional array? How it is initialize? Write a C program to find the sum of two matrix of order  $m*n$ . [2+2+6]
2. What is function? List its advantages. Explain the concept of function call by value and function call by reference with example.[2+2+6]
3. Define SDLC. Explain software process model.[2+8]

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**Name : \_\_\_\_\_**

**Symbol No: \_\_\_\_\_**

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**Group-A**

**Attempt all the questions. (10\*1=10)**

**Circle the correct answer in the following questions.**

1. The mnemonics are used in ...  
a) Assembly language                      b) Machine language  
c) High level language                      d) object oriented language
2. Which of the following is not programming technique?  
a) Iteration technique                      b) Bottom up approach  
c) Compiler technique                      d) Structured programming
3. Risk analysis is key feature in..... software process model?  
a) Waterfall                                      b) Spiral  
c) Prototype                                      d) a and b
4. The operator '&' is used for  
a) Bitwise AND                                      b) Bitwise OR  
c) Logical AND                                      d) Logical OR
5. Which among the following is an unconditional control structure?  
a) do-while                                      b) if-else  
c) goto    d) for
6. In C a pointer variable to an integer can be created by the declaration  
a) int p\*;                                      b) int \*p;  
c) int +p;                                      d) int \$p;
7. A 'continue' statement terminates a  
a) Function                                      b) Iteration  
c) Body of loop                                      d) None of the above
8. The function which is used to input string from keyboard is:  
a) gets()    b) getstring()  
c) reads()    d) scans()
9. The expression ++X is same for  
a) X=X+1    b) X=X++  
c) X=X+0    d) X=X+2
10. For string data type ... format specifier is used  
a) %d    b) %c  
c) %s    d) %f

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Level: BCA (VII<sup>th</sup> Semester)

Time: 3 hrs.

**Course Title: Cloud Computing**

F.M.: 60

P.M.: 24

**Date: 2080/11/24**

*Candidates are required to give the answer in their own words as far as practicable.  
The figures in the margin indicate full marks.*

**Name of Student:** \_\_\_\_\_

**GROUP A**

**Tick the correct answer:**

**[10 x 1 = 10]**

1. What are some characteristics of Cloud Computing?
  - a) Limited scalability and elasticity
  - b) On-demand self-service and broad network access
  - c) High upfront infrastructure investment and limited accessibility
  - d) Static resource allocation and centralized management
2. Which of the following is NOT a type of cloud deployment model?
  - a) Public Cloud
  - b) Private Cloud
  - c) Hybrid Cloud
  - d) Static Cloud
3. What is the role of Platform as a Service (PaaS) in cloud computing architecture?
  - a) Providing physical infrastructure such as servers and storage
  - b) Offering a platform for developing, running, and managing applications without dealing with the underlying infrastructure
  - c) Offering ready-to-use applications over the internet
  - d) Providing virtualized computing resources on-demand
4. Which cloud service model involves delivering software applications over the internet on a subscription basis?
  - a) Platform as a Service (PaaS)
  - b) Software as a Service (SaaS)
  - c) Infrastructure as a Service (IaaS)
  - d) Function as a Service (FaaS)
5. What is the primary purpose of virtualization techniques in cloud computing?
  - a) To limit access to cloud resources
  - b) To abstract physical hardware resources and create virtual instances
  - c) To increase the cost of cloud services
  - d) To reduce the scalability of cloud deployments
6. What is the fundamental concept behind the MapReduce model?
  - a) Centralized data processing
  - b) Distributed data processing across multiple nodes
  - c) Serial data processing
  - d) Static data processing
7. What is the primary focus of Cloud Security?
  - a) Ensuring physical security of cloud data centers
  - b) Protecting cloud-based resources and data from unauthorized access, breaches, and other security threats
  - c) Optimizing cloud performance
  - d) Reducing cloud infrastructure costs
8. Which cloud platform is known for its AppEngine service?
  - a) AWS (Amazon Web Services)
  - b) Azure
  - c) Google Cloud Platform
  - d) IBM Cloud
9. How is the parallel efficiency of MapReduce typically measured?
  - a) Throughput
  - b) Speedup
  - c) Latency
  - d) Bandwidth
10. What is a key advantage of using MapReduce for parallel computing?
  - a) Increased complexity
  - b) Limited scalability
  - c) Simplified programming model for distributed computing
  - d) Higher hardware requirements



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**GROUP B**

Attempt Any **SIX Question:**

[6\*5=30]

11. Define cloud computing? List out characteristics of cloud computing. [2+3]
12. Differentiate between IAAS and PAAS. [5]
13. Comparison between public clouds and private clouds with example. [5]
14. What are the advantages of virtualization? [5]
15. Discuss the applications of map reduce. [5]
16. Explain the software-as-a-Service security with example. [5]
17. Write short notes on (Any Two) [2.5+2.5]
  - a. Hybrid Clouds
  - b. Data Security
  - c. Scientific applications

**GROUP C**

Attempt Any **TWO** Questions:

[10\*2=20]

18. Explain the cloud deployment models, in detail with their benefits and limitations while implementing and application.
19. Explain detail about virtualization.
20. Explain the different techniques are used for data encryption in cloud computing with example

*ALL THE BEST*



Level: BCA (V<sup>th</sup> Semester)

F.M.: 60

Time: 3 hrs.

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