

KATHMANDU UNIVERSITY
End Semester Examination [C]
June/July 2024

Level : B.Sc./B.Tech
Year : I
Time : 2 hrs. 30 mins.

02 JUL 2024

Course : COMP 101
Semester : I
F. M. : 40

SECTION "B"

[6Q × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. What is Computer System? Describe different components of a computer system. [1+3]
2. Describe CRT Display Unit and how does it work? [4]
3. What is machine cycle? Describe it in detail. [1+3]
4. Briefly describe the types of Operating System. [4]
5. Describe the Bus Topology and Star Topology with suitable example and diagrams. [4]
6. What is Green Computing? Describe the advantages of Green Computing. [1+3=4]
7. Describe the Data Science Life Cycle in brief. [4]

SECTION "C"

[2Q × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Explain different categories of Computer in detail. [8]
9. What is Number System? Explain different types of Number System. How can you do conversion from one number system to another? Explain with suitable examples. [1+4+3=8]
10. What is Computer Security? Briefly describe the Goals of Computer Security. How can you protect against unauthorized access and unauthorized use? [1+3+4=8]

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Marks Scored:

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Time: 30 mins.

F. M. : 10.

Registration No.:

Date **02 JUL 2024**

SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose the most appropriate answer and **mark [X]** in the box.

1. The main memory of a computer system is?
 Non-volatile Volatile Restricted Unrestricted
2. The generation based on VLSI microprocessor is _____.
 1st 2nd 3rd 4th
3. Components that provide internal storage to the CPU are _____.
 Registers Controllers
 Program Counters Internal chips
4. The devices that used to give single or multiple colored images and drawings are _____.
 Monitors Printers Plotters VDUs
5. The hexadecimal equivalent of the binary number (0010010100)₂ is:
 (094)₁₆ (0A4)₁₆ 224 0114
6. Convert (22)₈ into its corresponding decimal number.
 28 18 81 82
7. The 2's complement of 15 is _____.
 0000 0001 0010 0100
8. Which of the following is an application Software?
 LINUX macOS UNIX Graphics Software
9. Microsoft Word, Microsoft Excel, and Google Docs are the examples of _____.
 an operating software system software
 utility software application software
10. Which of the following transmission directions listed is not a legitimate channel?
 Simplex Half Duplex Full Duplex Double Duplex
11. Which software prevents the external access to a system?
 Firewall Gateway Router Virus checker

12. _____ focuses primarily on hardware and software tools available over the internet.
 PaaS SaaS IaaS HaaS
13. What is IoT?
 network of physical objects embedded with sensors
 network of virtual objects
 network of objects in the ring structure
 network of sensors
14. In your college there is a library, and you can use the internet to do research, this library will most likely be a _____ network.
 LAN MAN WAN PAN
15. Which of the following is not the type of Cloud?
 Private Public Composite Community
16. What is System software?
 allows the user to diagnose and troubleshoot the device
 is a programming language
 helps the computer manage internal resources
 is part of a productivity suite
17. _____ is the fraudulent act of acquiring private and sensitive information, such as credit card numbers, personal identification and account usernames and passwords.
 Malware Trojan Hacking Phishing
18. What is a computer network?
 A device used to display information on a computer screen
 A collection of interconnected computers and devices that can communicate and share resources
 A type of software used to create documents and presentations
 The physical casing that protects a computer's internal components
19. Which of the following is used to capture data from the physical world in IoT devices?
 Sensors Actuators Microprocessors Microcontrollers
20. What is Blockchain?
 A currency
 A ledger
 A type of currency
 A distributed ledger on a peer-to-peer network