

KATHMANDU UNIVERSITY
End Semester Examination [C]
May/June, 2019

Marks Scored:

Level: B.Sc./B.Tech./B.Pharm.

Course : COMP 101

Year : I

Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date

04 JUN 2019

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose the most appropriate answer from the given options and **encircle** the letter of your choice.

1. Which technology was used in the first-generation computers?
a. Transistors b. Vacuum tubes c. Microprocessors d. Integrated Chips
2. Which of the following is NOT an internal component of a CPU?
a. Arithmetic unit b. Logic unit c. Interface unit d. Control unit
3. Which of the following memory locations are first referred by the CPU while searching for data?
a. Main memory b. Cache memory c. ROM d. Secondary memory
4. Which of the following belongs to the category of special purpose keys?
a. Tab b. SHIFT c. ALT d. CTRL
5. Which of the following devices is used for pointing in all directions?
a. Light pen b. Joystick c. Trackball d. Mouse
6. Which of the following is a hard copy output device?
a. Printer b. Speaker c. Display monitor d. Projector
7. The combination of 8 bits is known as:
a. Kilobyte b. Bit c. Byte d. Word
8. What is the equivalent decimal number of octal number 4567?
a. 2045 b. 7654 c. 5467 d. 2423
9. What is the corresponding decimal number of binary number 10101101?
a. 173 b. 183 c. 193 d. 2231
10. Which of the following options can be used to express all logical operations?
a. K-map b. Truth Table
c. Boolean expression d. All of the mentioned
11. Which of the following is not a system software?
a. Linkers b. Device drivers c. Operating system d. Word processor

12. A software, which links different elements of an object code with the library files, is known as:
a. Editor b. Linker c. Loader d. Debugger
13. A control structure in which only a single set of instructions executes several times is known as:
a. Repetition structure b. Sequence structure
c. Selection structure d. None of the mentioned
14. Which of the following operating systems makes use of GUI?
a. Windows 2000 b. Windows Server 2003
c. Windwos Server Vista d. All of the mentioned
15. What is PCB?
a. Process Control Block b. Program Control Block
c. Process Control Bus d. Program Control Bus
16. Which of the following is a file operation?
a. Opening a file b. Renaming a file
c. Resizing a file d. All of the mentioned
17. The process of converting digital signal into the analog signal is known as:
a. Demodulation b. modulation
c. data compression d. None of the mentioned
18. Which of the following is not a network protocol?
a. FTP b. HTTP c. SMTP d. NMP
19. Which of the following topologies allow easy error detection and correction?
a. Linear bus topology b. Hybrid topology
c. Ring topology d. Star topology
20. The variables in Boolean Algebra can hold:
a. Any decimal value b. Either 0 or 1
c. Any octal value d. Any numeric value

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SECTION "B"

[6 Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Describe the different categories of computers on the basis of size and capability.
2. What do you mean by machine cycle? Describe different phases of Instruction cycle and Execution cycle. [1+3]
3. What is meant by storage system? How does optical storage system differ from magnetic storage systems? [1+3]
4. What is the hexadecimal representation of octal number 6235?
5. What is debugger? Differentiate between Assembler, Interpreter and Compiler. [1+3]
6. Differentiate between Algorithm and Flowchart. Describe an algorithm for calculating the average of n numbers. [2+2]
7. What is an operating system? Briefly explain the various functions of an operating system. [1+3]

SECTION "C"

[2 Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Explain at least four different types of logic gates with suitable examples.
9. What is network topology? Differentiate among ring, star, bus, and hybrid topology with the help of diagram. [1+7]
10. What are the characteristics of a good program? Explain in detail the concept of System Development Life Cycle. [3+5]

