Term End Examination 2022
Programme – B.Sc.(ANCS)-Hons-2020/B.Sc.(ANCS)-Hons-2021/B.Sc.(ANCS)-Hons-2022
Course Name – Computer Fundamentals/Computer Fundamentals & Database
Course Code - BNCSC101
(Semester I)

Full Marks : 60   **Time : 2:30 Hours**
[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question)   1 x 15=15

1.   *Choose the correct alternative from the following :*

(i)   Identify the full form of CPU

a) Computer Processing Unit   b) Computer Principle Unit
c) Central Processing Unit   d) Control Processing Unit

(ii) Identify the option that instructs the computer hardware, what to do and how to do it

a) Hardware   b) Operating system
c) Software   d) Device driver

(iii) Recall the previous command or action

a) Ctrl + C   b) Ctrl + R
c) Ctrl + U   d) Ctrl + Y

(iv) Identify the smallest unit of data in a computer

a) Bit   b) KB
c) Nibble   d) Byte

(v)   Identify the software used to manage and control the hardware components and allows interaction between the hardware and the other different types of software

a) Application software   b) System software
c) Utility software   d) Operating system

(vi) Select the term used In database for the column

a) Relation   b) Attribute
c) Tuple   d) None of the above

(vii) Choose the correct definition of Computer

a) Computer is a machine or device that can be   b)
programmed to perform arithmetical or logic   Computer understands only binary language
operation sequences automatically   which is written in the form of 0s & 1s

c) Computer is a programmable electronic   d) All of the mentioned
device that stores, retrieves, and processes

the data

(viii) Choose the correct reason for CPU scheduling

    a) multiprogramming operating systems   b) larger memory sized systems
    c) multiprocessor systems   d) none of the mentioned

(ix) Choose the number of levels in which the Architecture of the database can be viewed

    a) two levels   b) four levels
    c) three level   d) one level

(x) Select the type of application that is used to create a presentation.

    a) MS Excel   b) MS Powerpoint
    c) MS Word   d) JavA

(xi) Select the shortcut-key that is used to start a presentation from the beginning in PowerPoint

    a) F5   b) F11
    c) F7   d) Shift + F5

(xii) Select the term used to represent a half byte

    a) Byte   b) Nibble
    c) Bit   d) Word Size

(xiii) Select the option responsible for creating a process from a program

    a) OS   b) Web
    c) Internet   d) Firewall

(xiv) Solve and choose the correct option to remove borders applied in cells

    a) Choose None on Border tab of Format cells   b) Open the list on Border tool in Format Cell toolbar then choose first tool (none)
    c) Both of above   d) None of above

(xv) Infer on the name of the key among the candidate keys that are not selected as primary key

    a) Super Keys   b) Candidate Keys
    c) Alternate Keys   d) None of the above

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Explain Multithreading in CPU.   (3)

3. Explain PCB with block diagram.   (3)

4. Determine the Unary Relational Operations in Relation Algebra.   (3)

5. Describe the three levels of data abstraction.   (3)

OR

Write the name of three input devices and three output devices.   (3)

6. Differentiate between RISC and CISC.   (3)

OR

Explain a foreign key, and what is it used for. (3)

Group-C
(Long Answer Type Questions) 5 x 6=30

7. State conflict serializability with example (5)

8. Explain Armstrong's Axioms. (5)

9. What are UNION, MINUS, and INTERSECT commands in DBMS? Illustrate. (5)

10. Explain Multiprocessing with example. (5)

11. Consider a relation- R (V, W, X, Y, Z) with functional dependencies- {VW → XY, Y → V, WX → YZ} (5) determine whether the given R is in which normal form? Explain with all the candidate keys, prime attribute, non-prime attribute.

OR
What is serial and parallel execution? Explain with example. (5)

12. Check whether the given schedule S is conflict serializable or not- (5)

S : R1(A) , R2(A) , R1(B) , R2(B) , R3(B) , W1(A) , W2(B) . Justify the answer.

OR
Write the differences between two level architecture and three level architecture. (5)

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