# BACHELOR OF COMPUTER APPLICATIONS
# (BCA)

# (Revised Syllabus)

BCA(Revised Syllabus)/ASSIGN/SEMESTER-I

**ASSIGNMENTS**

**(July-2025 & January-2026 sessions)**

**FEG-02,ECO-01,BCS-011,BCS-012,BCSL-013**

**SCHOOLOFCOMPUTERANDINFORMATIONSCIENCES**
**INDIRA GANDHI NATIONAL OPEN UNIVERSITY**
**MAIDAN GARHI, NEW DELHI – 110 068**

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**Important Notes**

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2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to BCA Programme Guide.
3. To become eligible for appearing the Term End Practical Examination for the lab courses, it is essential to fulfill the minimum attendance requirements as well as submission of assignments (on or before the due date). For further details, please refer to the BCA Programme Guide.

| | | |
|---|---|---|
| **Course Code** | **:** | **FEG-02** |
| **Course Title** | **:** | **English** |
| **Assignment Number** | **:** | **BCA(I)/02/Assignment/2025-26** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **25%** |
| **Last Dates for Submission** | **:** | **31st October,2025(For July Session)** |
| | **:** | **30th April,2026(For January Session)** |

**There are six questions in this assignment which carried 100 marks. Answer all the questions. Please go through the guidelines regarding assignments given in the Program Guide for the format of presentation.**

**Q1.** Read the following passage and make notes in an appropriate format: **(15 Marks)**

One day a wonderful plate made of gold fell from Heaven into the court of a temple at Benares; and on the plate these words were inscribed; "A gift from Heaven to him who loves best." The priests at once made a proclamation that every day at twelve o'clock, all who would like to claim the plate should assemble at the temple, to have their kind deeds judged.

Every day for a whole year all kinds of holy men, hermits, scholars and nobles came, and related to the priests their deeds of charity, and the priests in solemn council heard their claims. At last they decided that the one who seemed to be the greatest lover of mankind was a rich man who had that very year given all his wealth to the poor. So they gave him the plate of gold, but when he took it in his hand, it turned to worthless, lead; though, when he dropped it in his amazement on to the floor, it became gold again. For another year claimants came; and the priests awarded the prize three times. But the same thing happened, showing that Heaven did not consider these men worthy of the gift. Meanwhile a large number of beggars came and lay about the temple gate, hoping that the claimants who came would give them alms to prove they were worthy of the golden plate. It was a good time for the beggars, because the pilgrims gave them plenty of money; but they gave them no sympathy, nor even a look of pity. At last a simple peasant, who had heard nothing about the plate of gold, came; and he was so touched by the sight of the miserable beggars, that he wept; and when, he saw a poor blind and maimed wretch at the temple gate, he knelt at his side and took his maimed hands in his and comforted him with kind words. When this peasant came to the temple, he was shocked to find it full of men boasting of their kind deeds and quarrelling with the priest. One priest, who held the golden plate in his hand, seeing the peasant standing there, beckoned to him; and the peasant came, and knowing nothing about the plate, took it in his hands. At once it shone out with three times its former splendour, and the priests said: "Son, the gift is yours : for you love best."

**Q2.** Write a summary of the passage and give it an appropriate title. **(15 Marks)**

**Q3.** Write a paragraph of 100-150 words on any one of the following topics: **(10 Marks)**

a) The use of AI b) Online Education

**Q4.** You are the Secretary of the Students Union in your college. Write a report in 250 words of a meeting held to discuss how to hold a Stand-up comedy show in the college**.** **(20 Marks)**

**Q5.** Write a report in 250 words of an interview you had with the education minister of your state.
**(20 Marks)**

**Q6.** Write a composition of 250-300 words based on any **one** of the pictures given below:
**(20 Marks)**

# BACHELOR OF COMPUTER APPLICATIONS (BCA_NEW)

BCA_NEW ASSIGNMENT SEMESTER-2

**ASSIGNMENTS**

**(January, 2025 & July, 2025 sessions)**

**FEG-02, MCS-202, MCS-203, MCSL-204, MCS-201, MCSL-205**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES , INDIRA GANDHI NATIONAL OPEN UNIVERSITY ,MAIDAN GARHI, NEW DELHI – 110 068**

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| | | |
|---|---|---|
| **Course Code** | **:** | **MCS-201** |
| **Course Title** | **:** | **Programming in C and PYTHON** |
| **Assignment Number** | **:** | **BCA_NEW(II)/201/Assignment/2025** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **30%** |
| **Last Date of Submission** | **:** | **30th April,2025(For January Session)**<br>**31st October, 2025 (For July session)** |

**There are ten questions in this assignment which carries 80 marks. Each question carries 8 marks. Rest 20 marks are for viva-voce. Answer all the questions from both the sections i.e. Section A and Section B. You may use illustrations and diagrams to enhance the explanations. Include the screen layouts also along with your assignment responses. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation.**

## SECTION-A (C-Programming)

**Question1:** Write an algorithm, draw a flow chart and write its corresponding C program to convert a Binary decimal number to its equivalent Decimal number. **(8 Marks)**

**Question2:** Write an algorithm and use the concept of Structures to write the program in C, to generate Progress-Report of students of a class X of the school for all its 4 terms (the class is of 20 students). Assumptions can be made wherever necessary. **(8 Marks)**

**Question 3:** Write a C program to generate the following pattern: **(8 Marks)**

```
*
* *
* * *
* * * *
* * * * *
```

**Question 4:** Write a C program to perform the following operation on matrices D = A * (B + C), where A, B and C are matrices of (3 X 3) size and D is the resultant matrix. **(8 Marks)**

**Question 5:** Use the concept of File Handling, to write a program in C, to collect a list of N numbers in a file, separate the even and odd numbers from the given list of N numbers, and put them in two separate files namely even_file and odd_file, respectively. **(8 Marks)**

## SECTION-B (PYTHON-Programming)

**Question 6:** (c) Write Python code to perform the following: **(8 Marks)**

(i) Copy content of file first.txt to second.txt
(ii) Reading a file
(iii) Writing into a file
(iv) Appending into a file

**Question 7:** Write an algorithm to find the slope of a line segment whose end point coordinates are$(x1, y1)$ and $(x2, y2)$. The algorithm gives output whether the slope is positive, negative or zero. Transform your algorithm into Python program. **(8 Marks)**

**Note:** Slope of line segment = $(y_2 - y_1)/(x_2 - x_1)$.

**Question 8:** Write a program in Python to create a package named Volume and create 3 modules in it named – Cube, Cuboid, and Sphere each having a function to calculate the Volume of Cube, Cuboid, and Sphere respectively. Import the module in a separate location and use the functions. Assumptions can be made wherever necessary. Support your program with suitable comments to improve readability. **(8 Marks)**

**Question 9:** Write a program in Python to perform the following: **(8 Marks)**

- To find the square root of numbers in a list using lambda function.
- To display the first n lines from a file, where n is given by the user.
- To display the size of a file in bytes
- To display the frequency of each word in a file.

**Question 10:** What are Co-routines? How do Co-routines differ from threads? How do Co-routines support cooperative multitasking in Python? Compare Subroutines and Co-routines.

**(8 Marks)**

# BACHELOR OF COMPUTER APPLICATIONS (BCA_NEW)

BCA_NEW ASSIGNMENT SEMESTER-2

**ASSIGNMENTS**

**(January, 2025 & July, 2025 sessions)**

**FEG-02, MCS-202, MCS-203, MCSL-204, MCS-201, MCSL-205**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES , INDIRA GANDHI NATIONAL OPEN UNIVERSITY ,MAIDAN GARHI, NEW DELHI – 110 068**

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| | | |
|---|---|---|
| **Course Code** | **:** | **MCS-202** |
| **Course Title** | **:** | **Computer Organisation** |
| **Assignment Number** | **:** | **BCA_NEW(II)/202/Assignment/2025** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **25%** |
| **Last Dates for Submission** | **:** | **30th April,2025(For January Session)** |
| | | **31st October, 2025 (For July session)** |

**There are four questions in this assignment, which carries 80 marks. The remaining 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the presentation format. The answer to each part of the question should be confined to about 300 words. Make suitable assumptions, if any.**

**Question 1**(Covers Block1) **(2 marks each × 10 parts =20 Marks)**

**(a)** Explain the Harvard architecture with the help of a diagram. Explain how the data and instructions will be stored in Harvard Architecture.

**(b)** Explain how a computer will execute the following high-level language program segment:

```
int a=25, b=75, c;
c=b-a;
```

**(c)** Perform the following conversion of numbers:

- **(i)** Decimal $(9567438120)_{10}$ to binary and hexadecimal.
- **(ii)** Hexadecimal $(8FAEB1DC)_h$ to binary and Octal.
- **(iii)** ASCII String "ABCabc$#4325 & Unicode" to UTF 8
- **(iv)** Octal $(41302576)_O$to Decimal

**(d)** Simplify the following function using K-map: F(A, B, C, D) = Σ (0,2, 4, 6, 8, 10, 15). Draw the circuit for the simplified function using NAND gates.

**(e)** Consider the Adder-Subtractor circuit given in Unit 3 of Block 1. Explain how this circuit will perform subtraction (A-B) if the value of A is 0011 and B is 1101. You must list all the bit values, including $C_{in}$ and $C_{out}$ and overflow condition.

**(f)** Make the Truth Table and draw the logic diagram of a 4×1multiplexer. Explain its functioning with the help of an example input.

**(g)** Assume that a source data value 1111 was received at a destination as 0111. Show how Hamming's Error-Correcting code will be appended to the source data, so this one-bit error is identified and corrected at the destination. You may assume that the transmission error occurs in the source data and not in the error correction code.

**(h)** Explain the functioning of the JK flip-flop with the help of a logic diagram and characteristic table. Also, make and explain the excitation table of this flip-flop.

**(i)** Explain the functioning of a master-slave flip-flop with the help of a diagram.

**(j)** Represent $(-126.5)_{10}$ and $(0.015625)_{10}$ in IEEE 754 single precision format.

**Question 2**(Covers Block 2) **(4 marks each × 5 parts =20 Marks)**

**(a) (i)** Explain the structure of a 16 × 4 ROM with the help of a diagram.

**(ii)** How many memory chips of size 64K ×4 bits are needed to build a RAM of size 32 M words if the word size of RAM is16 bits?

**(iii)** Find the storage capacity of a Magnetic disk with 8 recording surfaces, and 128 tracks consisting of128 sectors each. You may assume that each sector can store 512KB of data.

**(iv)** Find the rotational latency of a disk that rotates at 3000 rpm.

**(b)** Consider that the main memory of a computer is 128 words (assume a memory word to be 16 bits). The cache memory of this computer is 8 blocks of size, 32 bits each. Find the cache addresses for the main memory addresses$0111001_2$ and$1010101_2$if the following cache mapping schemes is used:

**(i)** Associative cache mapping

**(ii)** Direct cache mapping

**(iii)** Two-way set associative cache mapping

**(c)** What is the DMA technique of data transfer? Why is DMA needed? Explain the DMA breakpoints in an instruction cycle with the help of a diagram. Also, explain any one DMA configuration.

**(d)** Explain the Programmed I/O and Interrupt driven I/O techniques with the help of a diagram of each. How are these two techniques different from each other? Also, explain the steps of interrupt processing.

**(e)** Explain the features of the following I/O Technologies:

**(i)** Bit-mapped Graphics Image and Frame Buffer

**(ii)** Refresh Rate of Video controllers

**(iii)** Impact printers

**(iv)** Voice-based Input devices

**Question 3** (Covers Block 3) **(4 marks each × 5 parts =20 Marks)**

**(a)** Explain the functioning of Branch, Jump and Bit manipulation instructions with the help of an example/diagram of each. Also, explain the following addressing modes with the help of an example– Relative Addressing Scheme and Base register addressing scheme.

**(b)** Demonstrate how the size of a machine program changes for the computation of the expression a=(x*y) + (x*y+z) when different instruction sets, having zero address, one address, two address and three address instructions, are used.

**(c)** Consider a machine that uses PC, IR, AC, and MAR registers to execute different instructions. All the memory accesses during instruction execution bring data to a register named XR. ALU of the machine performs the addition operation using AC and XR registers, and results are stored in the AC register. List and explain all the microoperations required to execute the following machine instructions:

AC ← AC + X; where X is the address of a direct operand in the Memory

Assume that PC is currently pointing to this instruction. Make and state suitable assumptions, if any.

**(d)** Explain the Wilkes Control unit with the help of a diagram. Also, explain different microinstruction formats with the help of diagrams.

**(e)** Explain the use of large register files in RISC processors. Also, explain the circular buffer organisation of overlapped register windows in RISC with the help of a diagram.

**Question 4**(Covers Block 4) **(5 marks each × 4 parts =20 Marks)**

**(a)** What are the different types of Registers used in the 8086 microprocessor? Explain the use of each type of register of the 8086 microprocessor. Compute the physical address for the following<segment register: offset> pairs in an 8086 microprocessor:

**(i)** CS: IP = $12FB_h$: $567D_h$
**(ii)** DS:BX = $99AE_h$: $7551_h$
**(iii)** SS: SP = $3241_h$:$77FF_h$

**(b)** How does the 8086 microprocessor process interrupt? Explain with the help of a diagram. Write a program using 8086 assembly language to output a string: "Present Year is 2025."

**(c)** Write a program in 8086 assembly language, which converts an input of 4 ASCII digits to an equivalent hexadecimal number. For example, an input string of 4 ASCII digits, say "4", "5", "3", "2," will be converted to the hexadecimal equivalent of number 4532, which is $11B4_h$. Explain the algorithm of the program.

**(d)** List the characteristics of the following:
**(i)** Arithmetic Pipeline
**(ii)** Instruction Pipeline
**(iii)** SIMD array processor
**(iv)** Interconnection Structures of Multiprocessors
**(v)** Cache Coherence

# BACHELOR OF COMPUTER APPLICATIONS (BCA_NEW)

BCA_NEW ASSIGNMENT SEMESTER-2

**ASSIGNMENTS**

**(January, 2025 & July, 2025 sessions)**

**FEG-02, MCS-202, MCS-203, MCSL-204, MCS-201, MCSL-205**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES , INDIRA GANDHI NATIONAL OPEN UNIVERSITY ,MAIDAN GARHI, NEW DELHI – 110 068**

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| | | |
|---|---|---|
| **Course Code** | **:** | **MCS-203** |
| **Course Title** | **:** | **Operating Systems** |
| **Assignment Number** | **:** | **BCA_NEW(II)/203/Assignment/2025** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **30%** |
| **Last Date of Submission** | **:** | **30th April,2025(For January Session)**<br>**31st October, 2025 (For July session)** |

**This assignment has eight questions. Answer all questions. Each question is of 20 marks. The remaining 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide.**

**Question 1:**

Consider the following jobs:

| Job # | Arrival time | Run time |
|---|---|---|
| A | 0 | 4 |
| B | 2 | 5 |
| C | 3 | 6 |
| D | 5 | 5 |

a) Using the **SRTF** method, compute the completion times of the above jobs, average turnaround time, and average waiting time.
b) Using the **SJF** (Shortest Job First) method, compute the completion times of the above jobs, the average turnaround time, and the average waiting time.
c) Using the Round Robin method (with Quantum = 2), compute the completion times of the above jobs and the average waiting time. **(12 Marks)**

**Question 2:**

Discuss the different techniques for I/O management in an operating system. Explain how buffering, spooling, and caching improve I/O performance. Give examples to illustrate their practical applications. **(8Marks)**

**Question 3:**

Describe the structure of a disk in an operating system and explain the concept of disk scheduling. Compare the FCFS, SSTF, and SCAN scheduling algorithms. Provide an example to demonstrate the working of these algorithms. **(10 Marks)**

**Question 4:**

Compare and contrast contiguous and non-contiguous memory allocation methods. Explain the First-Fit, Best-Fit, and Worst-Fit algorithms for memory allocation with examples. Which method is more efficient and why? **(10 Marks)**

**Question 5:** **(10 Marks)**

Consider the following page-reference string:
1, 3,4, 2, 7,8, 6, 2, 3,9, 6, 4, 2, 1, 3, 5, 9, 10, 4, 1, 5, 3, 4

How many page faults would occur for following replacement algorithms assuming four frames? Remember that all frames are initially empty, so your first unique pages will all cost one fault each.

i. FIFO replacement.
ii. LRU replacement.
iii. Optimal replacement.

**Question 6:**

Differentiate between processes and threads. Explain the advantages of multithreading in an operating system. Propose a threading algorithm using a producer-consumer problem and explain how synchronization is achieved using semaphores. **(10 Marks)**

**Question 7:**

Explain the concept of virtual memory and its importance in modern operating systems. Describe the working of demand paging and how page faults are handled. Provide an example to demonstrate the process. **(10 Marks)**

**Question 8:**

Describe the architecture of a mobile operating system such as Android or iOS. Discuss the key features, differences from desktop operating systems, and challenges associated with mobile OS development.
**(10 Marks)**

# BACHELOR OF COMPUTER APPLICATIONS (BCA_NEW)

BCA_NEW ASSIGNMENT SEMESTER-2

**ASSIGNMENTS**

**(January, 2025 & July, 2025 sessions)**

**FEG-02, MCS-202, MCS-203, MCSL-204, MCS-201, MCSL-205**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES , INDIRA GANDHI NATIONAL OPEN UNIVERSITY ,MAIDAN GARHI, NEW DELHI – 110 068**

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| | | |
|---|---|---|
| **Course Code** | **:** | **MCSL-204** |
| **Course Title** | **:** | **WINDOWS and LINUX Lab** |
| **Assignment Number** | **:** | **BCA_NEW(II)/L-204/Assignment/2025** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **30%** |
| **Last Dates for Submission** | **:** | **30th April, 2025(For January Session)**<br>**31st October, 2025 (For July session)** |

**The assignment has two parts A and B. Answer all the questions. Each part is for 20 marks. WINDOWS and LINUX lab record carry 40 Marks. Rest 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation. If any assumptions are made, please state them.**

**PART-I: Windows 10**

**Question 1:** For the following given tasks of Windows 10, write the step-by-step procedure as well as attach the main screenshots: **(Each 1 mark = 1X20=20 marks)**

a. Create a new user account, set a password, and switch between accounts.
b. Change the desktop wallpaper, screen resolution, and add/remove desktop icons.
c. Create, rename, move, and delete folders and files. Explore different views in File Explorer.
d. Open Task Manager, view Running Processes and End a task.
e. Explore system settings using both the Control Panel and the Settings app.
f. Compress a folder into a ZIP file and extract its contents.
g. Use the search bar in File Explorer to find specific files based on keywords or extensions.
h. Change file or folder permissions and test access using different user accounts.
i. Recover deleted files from the Recycle Bin and permanently delete items.
j. View partition information and format a USB drive.
k. Create a system restore point and simulate restoring the system to a previous point.
l. Capture a specific area of the screen and save it as an image file.
m. Perform a quick scan and review the results.
n. Connect to a wireless network, forget a network, and reconnect.
o. Use the command prompt to view and note the IP address using the ipconfig command.
p. Play a video or audio file and create a playlist.
q. Enable and test features like the Magnifier, Narrator, and On-Screen Keyboard.
r. Use the Display Calibration Wizard to adjust brightness and colors.
s. Check for and install pending updates.
t. Use the Disk Cleanup tool to free up space on the C: drive.

## PART-II: LINUX

**Question 1:** **(1 mark each = 1X10=10 marks)**

Write the LINUX commands for the following:

a. Set the permissions of exam.txt so that only the owner can read and write, and others have no access.
b. Display the current permissions of exam.txt using ls -l.
c. Change the owner of exam.txt to another user using chown (if allowed).
d. Grant read permission to a specific user using setfacl.
e. Use the wc command to count the number of lines, words, and characters in exam.txt.
f. Find all occurrences of a specific word (e.g., "Linux") in exam.txt using grep.
g. Sort the lines of a file named data.txt alphabetically using sort.
h. Remove duplicate lines from data.txt using uniq.
**i.** Redirect the output of the ls command into a file named output.txt.
j. Check the connectivity to a specific website (e.g., google.com) using ping.

**Question 2:** **(2 ½ X 4 = 10 Marks)**

a. Write a script to display numbers from 1 to 10 using a ***for loop***.
b. Write a script to compress a directory (e.g., ~/exam) into a .tar.gz file.
c. Create a script that takes user input from the menu displayed and performs the arithmetic operation like a simple calculator.
d. Write a script to back up a directory into a compressed archive.

# BACHELOR OF COMPUTER APPLICATIONS (BCA_NEW)

BCA_NEW ASSIGNMENT SEMESTER-2

**ASSIGNMENTS**

**(January, 2025 & July, 2025 sessions)**

**FEG-02, MCS-202, MCS-203, MCSL-204, MCS-201, MCSL-205**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES , INDIRA GANDHI NATIONAL OPEN UNIVERSITY ,MAIDAN GARHI, NEW DELHI – 110 068**

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**Important Notes**

1. Submit your assignments to the Coordinator of your Study Centre on or before the due date.
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations.
3. To become eligible for appearing in the Term End Practical Examination for the lab courses, it is essential to fulfill the minimum attendance requirements as well as submission of assignments (on or before the due date

| | | |
|---|---|---|
| **Course Code** | **:** | **MCSL-205** |
| **Course Title** | **:** | **C and PYTHON Lab.** |
| **Assignment Number** | **:** | **BCA_NEW(II)/L-205/Assignment/2025** |
| **Maximum Marks** | **:** | **100** |
| **Weightage** | **:** | **30%** |
| **Last Date of Submission** | **:** | **30th April,2025(For January Session)**<br>**31st October, 2025 (For July session)** |

**There are two questions in this assignment carrying a total of 40 marks. Your Lab Record will carry 40 Marks. Rest 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of the presentation. Submit the screenshots along with the coding and documentation.**

**Section 1: C Programming Lab** **(20 Marks)**

**Question1:** Using Structures write an interactive program in C language to create an application program for a small training company to maintain the Trainer's database. This application should have menu options like

- Creating a New Record
- Reading/Listing of Records
- Modify the record
- Delete the record

Each Trainer record should have Trainer Name, Trainer ID, Department Name, Salary, Position, Date of Joining, etc.). The application should be designed user-friendly.

**Note: You must execute the program and submit the program logic, sample input, and output along with the necessary documentation for this question. Assumptions can be made wherever necessary.**

**Section 2: PYTHON Programming Lab**

**Question2: Attempt the following**

**I)** Write a Program to perform the following tasks **(10 Marks)**

a. Create a database SELECTION_DB
b. Set connection with MySQL.connector.connect.
c. Create a table STUDENT_SELECTION in database SELECTION_DB with following data FIRST_NAME,LAST_NAME,AGE,GENDER, SCORE.
d. change table structure / (add, edit, remove column of a table) at run time

i. add a column address in the STUDENT_SELECTION table.
ii. execute SQL *INSERT* statement to create a record into STUDENT_SELECTION table
iii. run the query to updates all the records having GENDER as **'M'**, and increase AGE of all the males by one year.
iv. delete all the records from STUDENT_SELECTION Table where AGE is less than 18 .

**II)** Write a program in Python to print the cube of the numbers present in the list, by using map( ) function.

**III)** Write Python code to read a dataset (may be CSV file) and print all features i.e. columns of the dataset. Determine the descriptive statistics i.e. Maximum, Minimum Mean Median, Count, Variance, Standard Deviation, etc. of the numeric features like age, salary, etc., that may be present in the dataset. **(10 Marks)**

**Note: You must execute the program and submit the program logic, sample input and output along with the necessary documentation for this question. Assumptions can be made wherever necessary.**