Q1. Answer of the following question:

Case Study Based and Source Based Question:-

A. Xenox Technologies deals in hardware components required for assembling computer systems in the Nehru Place Market. They provide reliable and efficient data storage devices to their customers.

Six Storage devices in which they deal are described below. Name the storage devices being described and also list the appropriate category of storage.

i. Optical Media which use one spiral track; red lasers are used to read and write data on the media surface; makes use of dual-layering technology to increase storage capacity.

ii. Non-Volatile memory chip: contents of the chip cannot be altered; it is often used to store the start-up routines in a computer.

iii. Optical Media which use concentric tracks to store data; this allows read and write operations to be carried out at the same time.

iv. Optical media which use blue laser technology to read and write data on the media surface.

v. Magnetic disc with very large storage capacity; can be used to store vast amounts of data; mostly fixed in computer cases and serves as the main storage device.

B. World Class Telecom Company is planning to conduct a videoconference with its associated partners across several nations. In its videoconferencing area, there are several microphones, speakers and webcams. Describe the purpose of each of the devices.

C. ABC school newsletter contains text and images in it. The head teacher needs one thousand copies of this newsletter. Give four reasons why a laser printer should be used rather than an inkjet or a dot matrix printer.

D. IndiaSells is an India-based cargo company that deals with the export and ale of various goods within the country and across the globe. To do business analysis of the day-to-day transactions, they have hired a programmer to develop a computerized system for the same.

Write a Python code that accepts:-

        i.. cost of goods sold (cogs),

        ii. Revenue generated,

        iii. operating costs (oc) and

        iv. prints gross profit, net profit

        v.. prints net profit percentage?

E. Gurukul Vidyapeeth is a reputed institution in the field of academics and extra-curricular activities. Every year, with the commencement of the new session, it hikes fee by 10% for all the students which was manually done till date and required enormous efforts on the part of the office staff.

To solve this problem:

i. develop a python program that calculates this 10% fee hike every year automatically after obtaining the basic fee amount from the user and

ii. Displays it to the parents of the students enrolled with the institute.

Q2. Difference between Primary Memory and Secondary Memory.

Q3. Why are language processors used? List their types.

Q4. What is the use of light Pen and Bar Code Reader?

Q5. What are the uses of OMR and Microphone?

Q6. Explain Software and Classification of Computer Software?

Q7. Write a Python Program to print your name?

Q8. Write a Python Program sum of two numbers with output.

Q9. Write a Python Program to calculate the area of circle with output.

Q10. What is IDLE?

Q11. Write the Output of the following:-

```
num1=4

num2=num1+1

num1=2

print(num1, num2)
```

Q12. Explain Features of Python.

Q13. Define keywords and Identifiers.

Q14. Write a Python Program to use type() in integer number.

Q15. Write Output:
  a. print(101, "Hello", 2.9, "World")
  b. print('I am a Class XI' + ' Students')

Q16. Write a Python Program to input two numbers and find their sum and product.

Q17. Write a Python Program to calculate simple interest by inputting the value of Principal amount and rate from the user for a time period of 5 years.

Q18. Write a user defined function to print a left angle triangle with output.

Q19. Write a user defined function to print a right angle triangle with output.

Q20. What is the difference between expression and statement in Python?