Subject: Computer Science(083)

Time: 3:00 Hours	Class 11	Max. Marks: 70

General Instructions

1. **This question paper has 5 pages.**
2. **This question paper contains five sections, Section A to E.**
3. **All questions are compulsory.**
4. **Section A has 18 questions carrying 01 mark each.**
5. **Section B has 07 Very Short Answer questions carrying 02 marks each.**
6. **Section C has 05 Short Answer type questions carrying 03 marks each.**
7. **Section D has 03 Long Answer type questions carrying 05 marks each.**
8. **Section E has 02 questions carrying 04 marks each.**
9. **All programming questions are to be answered in Python Language only.**

Section –A

1. Which of the following is not an example of primary memory?
   a) Hard Disk
   b) RAM
   c) ROM
   d) None of these

2. 4 bits makes _____
   a) 1 Byte
   b) 1 KB
   c) 1 MB
   d) 1 Nibble

3. The first stage of doing any task on computers is _____
   a) Input
   b) Process
   c) Output
   d) Storage

4. Which of the following is considered as a manager of computer?
   a) Keyboard
   b) Mouse
   c) CPU
   d) Printer

5. The system software that converts high level language program to low level language is known as _____
   a) Operating System
   b) Language Processor
   c) Utilities
   d) DTP Software

6. Which of the following is a common standard used for character representation in computers and commonly used for encoding schemes?
   a) Coding
   b) Unicode
   c) ASCII
   d) ISCII

7. Which of the following is not valid in octal number system ?

a) 3

b) 6

c) 7

d) 9

8. The output of two – input AND gate is high when

a) both inputs are low

b) both inputs are high

c) any one input is high

d) both b and c

9. Prutha is trying to convert a string literal '3' into integer. But she is confused which function out of the following is used to do so? Help her to do the right choice for her work.

a) integer

b) number

c) int

d) num

10. Priyansh wants to store the value 3.5 into a variable n. Which of the following statement is correct for him?

a) int n=5

b) n=5

c) 5=n

d) n='5'

11. Which of the following is valid identifier?

a) None

b) #None

c) 0_None

d) none

12. Which of the following gate is an inverter gate?

a) AND

b) OR

c) NOT

d) NOR

13. Which of the following is binary equivalent number 20?

a) 101000

b) 111000

c) 110000

d) 100100

14. Which of the following represents OR gate?

15. Which of the following is the result of A + 1, if input is A=0?

a) Always 0

b) Always 1

c) Vary from 0 or 1

d) None of these

16. What will be the output of A+A'?

a) 0

b) 1

c) Inverse of A

d) Both a) and b)

Q17 and Q18 are ASSERTION and REASONING based questions. Mark the correct choice as

(a) Both A and R are true and R is the correct explanation for A

(b) Both A and R are true and R is not the correct explanation for A

(c) A is True but R is False

(d) A is false but R is True

17. **Assertion(A):** In python program variable a and A both have different significance.

    Reason(R): Python is case insensitive language.

18. **Assertion(A):** Python does not support explicit type casting.

    Reason(R): Data type is not a part of variable declaration.

Section B

19. Convert the following numbers accordingly:

    a) $(110011)_2 = (?)_{10}$ b) $(345)_8 = (?)_2$

20. Draw the logical circuits for : $(A'+B')+(CD)'$

OR

    Prepare a truth table for following: $AB'+B'A$

21. Differentiate between hardware and software.

22. Nisha is confused to choose input and output devices from the following:

    lightpen, touchscreen, projector, scanner, joystick, printer, plotter, monitor

23. Write the full form of the following:

    a) SSD   c) DVD

    b) CD   d) ROM

24. Identify error in the following code. Rewrite the corrected code after removing errors and underline the corrections:

```
a,b=input("Enter value:")
result=a/*b
print result
```

25. What will be the output of following:

```
a,b=10,5
print(a/b)
print(a//b)
print(a%b)
print(a**2)
```

OR

What do you mean by tokens? Explain in short.

Section C

26. Write an algorithm to compute simple interest.

OR

Draw a flow chart to compute area of circle.

27. Draw the basic diagram of CPU and explain its three parts in short.

28. Write AASCII and equivalent binary values for following words:

a) BEACH   b) dad

29. What do you mean by comments? How many types of comments supported by python? Explain each type of comments in detail.

OR

What do you mean by keywords? Explain in detail.

30. Predict the Output:

```
a, b, c = 10,20,30
p, q, r = c – 5, a + 3, b – 4
print('a, b, c:', a, b, c, end =' ')
print("p, q, r:", p, q, r)
```

Section D

31. Write a program to accept bowler name, no. of overs bowled and runs given. Compute economy rate per over.

OR

Write a program to accept two numbers and swap them.

32. Covert the following memory units as directed:

a) 107 bytes = _____ nibble   d) 300 nibble = _____ KB

b) 23 GB = _____ KB   e) 3 MB = _____ GB

c) 561 YB = _____ GB

33. Write algorithm and flowchart to check whether a number is positive or negative.

OR

Write algorithm and draw flow chart to check whether number is one digit or two digit.

Section E

34. Prutha is class 11 student. She is learning python. She wants to display the only the last two digits of a number. She has written the partial code as following:

```
n=_____ #Statement 1
ld1= _____ #Statement 2
n= _____ #Statement 3 Remove the first last digit of a number
ld2=n%10
print("Last Digit 1:",_____, "Last Digit 2",_____) #Statement 4
```

a) Statement 1 – Input n as integer

b) Statement 2 – Get the last digit by modulo division of number by 10

c) Statement 3 – Get new number by removing last digit using floor division by 10

d) Statement 4 – Print the last digit 1 and last digit 2

35. Observe the given logical circuit and write the expression and prove it using truth table: