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DELHI PRIVATE SCHOOL L.L.C.
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HY/CSQP/1121/A **22-NOV-2021**

HALF YEARLY EXAMINATION (2021-22)

SET A

Subject: COMPUTER SCIENCE **Max. Marks: 35**

Grade: XI **Time: 90 Mins**

Name: **Section:** **Roll No:**

General Instructions:

The question paper is divided into 3 Sections - A, B and C.

- Section A, consist of 25 Questions (1-25). Attempt any 20 questions.
- Section B, consist of 24 Questions (26-49). Attempt any 20 questions.
- Section C, consist of 6 case study-based Questions (50-55). Attempt any 5 questions.
- All questions carry equal marks.
- The question paper has 10 printed pages

I. Section-A

This section consists of 25 Questions (1 to 25). Attempt any 20 questions from this section. Choose the best possible option.

1. Which of the following operator cannot be used with string data type?

a. + **b.** *

c. in **d.** /

2. What is the maximum possible length of an identifier?

a. 71 characters **b.** 32 characters

c. 64 characters **d.** none of these

3. Which of the following is invalid declaration

a. k = 5-4j **b.** k=- 4j

c. k =6-9i **d.** k=-6+j

4. The _____ statement in python executes when a loop terminates normally.

a. continue **b.** loop else

c. break **d.** pass

5. If st=”Dance” then what’s st[1:1] ?

a. 'D' **b.** 'e'

c. 'Da' **d.** ' '

6. >>> x+y=x

The above line of code produces an error. Which type of error is it?

a. Syntax error **b.** Logic error

c. Semantic error **d.** Runtime error

7. The number of bits processed in a single instruction is called_____

a. Bits per seconds **b.** Memory

c. Word length **d.** Instruction set

8. Which of the following is identity operator?

a. is **b.** in

c. not **d.** ==

9. It is a type of microprocessor architecture that uses a small set of instructions of uniform length
   a. CISC **b.** RISC
   c. EISC **d.** EPIC
10. Which of the following is not a token?
   a. // **b.** 23
   c. "X" **d.** ^^
11. >>>name1="Ketan\
   Pathak"
   >>>name2="Ketan\nPathak"
   Which of the following statement is correct?
   a. The length of name1 is 11 and length of name2 is 12. **b.** The length of name1 and name2 is 12.
   c. The length of name1 is 12 and name2 is 11. **d.** The length of name1 and name2 is 11.
12. For any index n, a string of a string s, s[:n]+s[n:] will give you the _____
   a. original string s **b.** empty string
   c. string s concatenated with itself **d.** error
13. >>>print("hello");print("hi there")
   The above line of code will be
   a. Syntax error **b.** Semantic error
   c. hello
   hi **d.** hello; hi
14. Which of the following statement is correct for or operator?
   a. Python only evaluates False if both the arguments are True. **b.** Python only evaluates the second argument if the first one is True.
   c. Python only evaluates True if any one argument is True. **d.** Python only evaluates False if any one argument is False.
15. A logic which results in either true or false
   a. Binary literal **b.** Tautology
   c. Fallacy **d.** Binary decision
16. The expression of a NAND gate is_____
   a. (A+B)' **b.** (A.B)'
   c. A'.B' **d.** A'+B'
17. In hexadecimal system consist of basic digits:
   a. 0 to 16 **b.** 0 to 9 and A to F
   c. 0 to 9 and A to G **d.** 0 to 15
18. ASCII code is a _____ bit code.
   a. 8 **b.** 7
   c. 32 **d.** 15
19.
```
1 S='Python Program'
2 L=length(S)
3 for i in range[L]:
4     if i%2=0:
5         print(S[i])
6 else:
7    print(i)
```
   Consider the code above with the line number mentioned in the first column. Which line number has error.

a. line 2,3,4 **b.** line 2,3,4,6
c. line 2,3,4,6,7 **d.** line 2,3,6

20. What will the following expression return?
>>> "Hello World". find("wor")
a. 6 **b.** 7
c. 0 **d.** -1

21. The process which involves breaking down a complex problem or system into smaller parts that are more manageable and easier to understand.
a. decomposition **b.** pattern recognition
c. pseudocode **d.** abstraction

22. What does the following code print :
```
if True:
   print(1001)
else:
  print(2002)
```
a. 1001 **b.** 2002
c. No output **d.** Error

23. Which statement is adding remainder of 8 divided by 3 to the product of 5 and 6?
a. 8 //3 + 5 * 6 b. 8 %3 + 5.6
c. 8/3 + 5 * 6 d. 8%3+5*6

24. _____ function returns True if all characters in the string are alphabetic and there is at least one character, False otherwise
a. isalnum( ) **b.** isspace( )
c. isalpha( ) **d.** isdigit( )

25. A string used to document a Python module, class, function or method, so programmers can understand what it does without having to read the details of the implementation
a. comments **b.** doc strings
c. identifiers **d.** escape sequence

II. Section-B

This section consists of 24 Questions (26 to 49). Attempt any 20 questions.

26. What will be the output of the following statement given:
```
txt="term1.sample paper 2021"
print(txt.partition("1."))
```
a. ['term', '1.', 'sample paper 2021'] **b.** ('term', '1.', 'sample paper 2021')
c. ['term1.', 'sample paper 2021'] **d.** ('term1.', 'sample paper 2021')

27. Evaluate the following:
not 2>=1 and 3==4 or "abc"<"ABC"
a. False **b.** True
c. “abc” **d.** “ABC”

28. If a=1,b=2 and c= 3 then which statement will give the output as : 2.0 from the following:
a. >>>a%b%c+1 **b.** >>>a%b%c+1.0
c. >>>a%b%c **d.** >>>a%b%c-1

29. What will be the output of the following code:
```
for i in range(5,16,3):
   if i%11==0:
      break
   print(i,end=" ")
```

a. 5 8 11
b. 5 8
c. 5 8 11 14
d. 5

30. What will be the output of the following code:

```
x=0
for i in range(3):
   for j in range(i):
      x+=i+j
      print(x,end=" ")
   print( )
```

a.
0
1 3
9 13 18

b.
1 3
3 9 13

c.
1
3 6
9 13 18

d.
1
3 9

31. What will be the output of the following code:

```
inp="pizz"
while len(inp)<=4:
      if inp[-3]=='z':
            inp=inp*3
      elif 'a' in inp:
            inp=inp[0]+'bb'
      elif 'a' not in inp:
            inp=(inp+'aa3')*2
      else:
            inp=inp+'*'
print(inp)
```

a. pizz
b. pizzz
c. pizzaa3pizzaa3
d. pbbaa3pbbaa3

32. What will be the output of the following code:

```
v=5
for j in range(1,v+1):
   if j%4==0:
      continue
   print("#")
else:
   print("XYZ")
```

a.
#
XYZ
#
XYZ
#
XYZ
#
XYZ

b.
#
#
#
#

c.
```
#
#
#
#
XYZ
```

d.
```
#
#
#
#
#
XYZ
```

33. What is the result of executing the following code?

```
number = 5
while number <= 5:
   if number < 5:
      number = number + 1
   print(number)
```

a. The value of number will be printed exactly 1 time

b. The program will loop indefinitely

c. The while loop will never get executed

d. The value of number will be printed exactly 5 times

34. What will the following code print?

```
output = "The Year of 50th"
t=""
x=0
while x <len(output):
    t= output[x]+t
    x+=1
print(t)
```

a. The Year of 50th

b. heT reaY fo th50

c. " "

d. ht05 fo raeY ehT

35. Which of the following Python loop statement gives different values of loop variable from the others?

a. for i in range(0,9,2):

b. for j in [0,2,4,6,8]:

c. for l in range(0,10,2):

d. for k in [0,2,4,6,8,10]:

36. What will be the output of the following code?

```
>>> 7 + 4 * 8 // 2 ** 2 - 6 / 1
```

a. 9.0

b. 9

c. 17

d. 17.0

37. What will be the output?

```
address="203, Bin Waleed Building,Sharjah"
print(address.split(','))
```

a. ['203', ' Bin Waleed Building', 'Sharjah']

b. ['203,', 'Bin', 'Waleed', 'Building,Sharjah']

c. ['203', ',', 'Bin', 'Waleed', 'Building,Sharjah']

d. ['203', ', Bin', 'Waleed', 'Building,Sharjah']

38. What output will the following code produce?

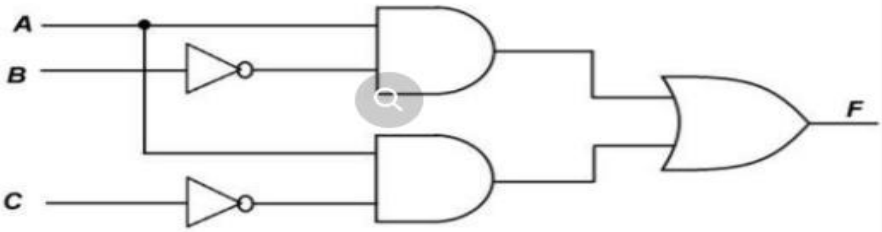
```
text="gr8  # Day"
for i in range(len(text)):
   if i%2==0:
      if text[i].isupper():
         print(text[i].lower(),end="")
      else:
         print(text[i],end="")
```

```
elif text[i].isspace():
    print("$$",end="")
else:
    print(text[i].upper(),end="")
```

a. Gr8 $$#$$dAy
b. gR8$$ # DaY
c. gr8 # Day
d. GR8$$#$$dAY

39.

Write the equivalent Boolean expression for the following Logic Ciruit:



a. F=A'.B+A'.C
b. F=(A+B').(A+C')
c. F=A.B'+A.C'
d. F=(A'+B).C

40. When we convert 110010.01 binary numbers to decimals. Then the solution is :

a. 50.25
b. 52.50
c. 100.25
d. 54.75

41. What will be the output of the following code:

```
st1="My fav number 123"
print(st1.isalnum( ))
```

a. 0
b. 1
c. True
d. False

42. Convert $(11010111101)_2$ into hexadecimal equivalent.

a. D7A
b. 6DE
c. 6BD
d. C7B

43. Convert $(FAB)_{16}$ to equivalent octal

a. 7654
b. 7653
c. 6645
d. 2312

44. What will be the output of the following boolean expression using truth table.

A'B+B'C

a.	**b.**
0	0
1	1
1	1
1	1
0	0
1	1
0	0
0	1

c.	**d.**
1	0
1	1
1	1
1	1
0	0
1	1
0	0
1	0

45. The code below reperesnts sum of which series:

```
sum=0
n=int(input("Enter a range"))
for i in range(1,n+1):
    prod=1
    for j in range(1,i+1):
        prod*=j
    sum+=prod/i
print("Sum of series=",sum)
```

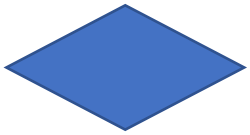
a. 1+(1*2)/2+(2*3)/3+….(n-1*n)/n
b. 1+2*4/2+3*6/3+…n*n+2/n
c. 1+(1*2)/2+(1*2*3)/3+(1*2*3*4)/4+…+(1*..n)/n
d. 1+2*3/2+3*4/3+…+n*n+1/n.

46. What will be the output of the following code if the eneterd value of n=5?

```
sum=0
n=int(input("Enter a range"))
for i in range(1,n+1):
    prod=1
    for j in range(1,i+1):
        prod*=j
    sum+=prod/i
print("Sum of series=",sum)
```

a. Sum of series= 34.0
b. Sum of series= 5
c. Sum of series= 20.0
d. Sum of series=35.0

47. What function in a flowchart does the following symbol of diamond represent?



a. Start/End
b. Input/Output
c. Process
d. Decision

48. Write the output of the following code:

```
Text= "Ayurveda Training"
L=len(Text)
print("Length of String : ", L)
print("New String : ", end=' ')
for K in range (L) :
    if Text[K]>='F' and Text[K]<='L':
        print(Text[K].lower(), end='')
    elif Text[K]=='E' or Text[K]=='e' :
            print('C', end='')
    elif K%2==0:
            print(Text[K].upper(), end='')
    else:
        print(Text[K-1], end='')
```

a. Length of String : 17
New String : AAUuVeDd RrIiInG
b. Length of String : 16
New String : AAUuVDd RtIiIiG
c. Length of String : 17
New String : AyUuVCDa RrIiIiG
d. Length of String : 17
New String : AAUuVCDd RrIiIiG

49. Which of the following is an invalid variable name?

a. my_string_1
b. 2_lst_string
c. foo
d. _

III.

Section-C

Case Study based Questions

This section consists of 6 Questions (50 -55) Attempt any 5 questions.

Ridhima has made a python program checks an entered string is a palindrome or not. Her effort is not to use string slicing and use her own logic.

She wrote the following code :

```
string=_____________________      #statement 1
palin=True                        #statement 2
j=_____________                   #statement 3
for i in range(len(string)//2):   #statement 4
   if string[i] ____ string[j]:   #statement 5
      palin=False                 #statement 6
      ______                      #statement 7
   j=____                         #statement 8
if palin==_____:                  #statement 9
   print("The string is a palindrome")   #statement 10
else:                             #statement 11
   print("The string is not a palindrome")  #statement 12
```

50. Identify the suitable code for blank space in the line marked as Statement 1.

a. print(“A string”) **b.** input(“Enter a string)

c. int(input(“Enter a string”)) **d.** ' '

51. Identify the suitable code for blank space in the line marked as Statement 3.

a. 0 **b.** -10

c. len(string)-1 **d.** len(string)

52. Identify the suitable code for blank space in the line marked as Statement 5.

a. == **b.** <=

c. != **d.** >=

53. Identify the suitable code for blank space in the line marked as Statement 7.

a. break **b.** pass

c. continue **d.** None

54. Identify the suitable code for blank space in the line marked as Statement 8.

a. len(string) **b.** j+1

c. j+2 **d.** j-1

55. Identify the suitable code for blank space in the line marked as Statement 9.

a. string **b.** len(string)

c. False **d.** True

***