

Exam ID.

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Candidates must write the Set No.
on the title page of the OMR Sheet.

**DAV PUBLIC SCHOOLS, ODISHA ZONE –I
PA-II EXAMINATION, 2021-22**

- Check that this question paper contains 10 printed pages.
- Set number given on the right hand side of the question paper should be written on the OMR SHEET by the candidate.
- Check that this question paper contains 55 questions.

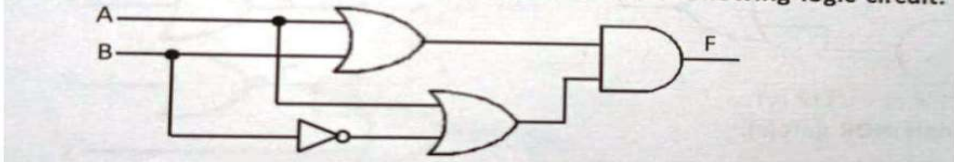
**CLASS – XI
SUB : COMPUTER SCIENCE (083)**

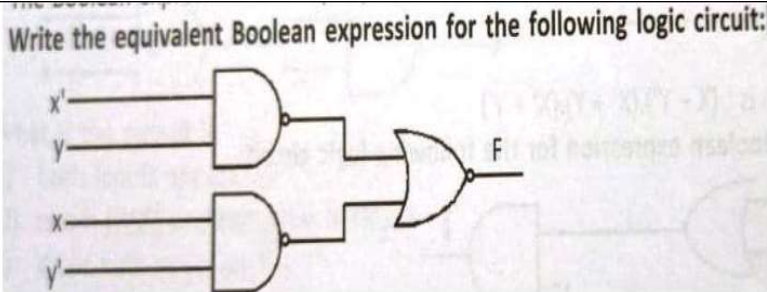
Time: 90 Minutes

Maximum Marks: 35

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.*

Q.N.	Section-A
<p>This section consists of 25 Questions (1 to 25). Attempt any 20 questions from this section. ONLY first 20 answers will be considered for evaluation.</p>	
<p>Q1</p>	<p>The Arithmetic Logic Unit performs which arithmetical operation? (A) (+,-,*,/) (B) (True, False) (C) (<, >, =, > =, <>) (D) All of these</p>
<p>Q2</p>	<p>Arrange the following measurement units of memory in ascending order as per their storage capacity? 1.BYTE 2. MB 3. GB 4. KB (A) 1,2,3,4 (B) 4,3,2,1 (C) 1,4,2,3 (D) 1,4,3,2</p>
<p>Q3</p>	<p>Which of the following is designed to control the operations of a computer? (A) Application Software (B) System Software (C) Utility Software (D) User</p>
<p>Q4</p>	<p>Choose the software which is designed to perform a specific task: (A) Synchronous Software (B) Package Software (C) Application Software (D) System Software</p>
<p>Q5</p>	<p>Which of the following is an example of a Real Time Operating System? (A) MAC (B) MS-DOS (C) WINDOWS 10 (D) Process Control</p>
<p>Q6</p>	<p>Choose the gate which gives the output as 0 only if all the inputs signals are 1. (A) AND (B) OR (C) NAND (D) NOR</p>
<p>Q7</p>	<p>Write the equivalent Boolean expression for the following logic circuit:</p>  <p>(A) $(A+B)(A+B')$ (B) $(A'+B)(A+B')$ (C) $(A'+B')(A+B)$ (D) $(A+B)(A'+B')$</p>
<p>Q8</p>	<p>Which out of the following binary number is equivalent to decimal number 24 (A) 11011 (B) 11000 (C) 11111 (D) 11001</p>
<p>Q9</p>	<p>The octal equivalent of $(13)_{10}$ is (A) 18 (B) 14 (C) 15 (D) 16</p>
<p>Q10</p>	<p>Convert hexadecimal $(FACE)_{16}$ to its equivalent binary (A) 1111101011001110 (B) 0011101011010011 (C) 1100111111100011 (D) 1010101011011111</p>

<p>Q11</p>	<p>Write the equivalent Boolean expression for the following logic circuit:</p> 	
	<p>(A) $(x+y').(x'+y)$ (B) $(x+y)+(x'y)$ (C) $(x'+y).(x+y')$ (D) $(x'+y')(x'+y')$</p>	
<p>Q12</p>	<p>The _____ provides an unique number for every character for various devices like servers, desktop, mobile and operating system linux, windows, iOS or software application. (A) ASCII (B) ANSI (C) ISCII (D) UNICODE</p>	
<p>Q13</p>	<p>What will be the size of the following constant ? “Nilima\’s Pen” (A) 12 (B) 11 (C) 13 (D) 10</p>	
<p>Q14</p>	<p>What do we use to define a block of code in Python language? A) Key (B) Brackets (C) Indentation (D) None of these</p>	
<p>Q15</p>	<p>Which of the following is not a keyword in Python language? (A)for (B) if (C) try (D) Sum</p>	
<p>Q16</p>	<p>Which of the following functions is a built-in function in python language? (A) val() (B) print() (C) fact() (D) None of these</p>	
<p>Q17</p>	<p>Which of the following option is a core data type in the python language? (A) Dictionary (B) List (C) String (D) All of the above</p>	
<p>Q18</p>	<p>Which of the following is not a valid identifier? (A) SUM (B) 1sum (C) sum_Marks (D) _Sum1</p>	
<p>Q19</p>	<p>Name 2 modes available in Python Programming IDE? (A) Script and Interactive (B) Script and Immediate (C) One-Go and File (D) Script and One-Line</p>	

Q20	What is the output of this expression, $1*2**3**2$ (A)510 (B) 512 (C)64 (D) 68
Q21	What will be returned by Python as result of the following statements <code>>>> print(str(print())+"one")</code> (A) None (B) Noneone (C) one (D) 'Noneone'
Q22	Special meaning words of Python's, fixed for specific functionality are called _____ (A)Keywords (B) Identifier (C) Functions (D) Literals
Q23	Which of the following is correct way to represent a string literal in python. (A) \Monish\ (B) "Monish" (C) 'Monish' (D)"Monish'
Q24	The input() returns the value as _____ type : (A) integer (B) list (C) floating (D) string
Q25	To print a line of text without ending it with a newline , _____ argument is used with print() (A) sep (B) newline (C) end (D) next
SECTION- B	
This section consists of 24 Questions (26 to 49). Attempt any 20 questions from this section. ONLY first 20 answers will be considered for evaluation.	
Q26	Which one of the following is expected : <code>>>> len(str(17/4))</code> (A)5 (B) 4 (C) 3 (D) 2
Q27	What will be the output of the following Python code? First1 =0 Second1 = 1 print(First1 ,Second1) for elem in range(2,8): N1=First1+Second1 print(N1, end= " ,") First1=Second1 Second1=N1 (A) 0,1,1,2,3,5,8,13,21 (B) 1,1,2,3,5,8,13 (C) 0,1,1,2,3,5,8,13, (D) 0,1,1,2,3,4,5,6,
Q28	if 4+5==10: print("True") else: print("false") print("True") (A) False (C) false True (B) True (D) none True

<p>Q29</p>	<p>What will be the output of the following Python code?</p> <pre> str1="learn python" str2="" str3="" for x in str1: if(x=="r" or x=="n" or x=="p"): str2+=x pass if(x=="r" or x=="e" or x=="a"): str3+=x print(str2,end=" ") print(str3) </pre> <p>(A) rnpn ea (B) rnpn ear (C) rnp ea (D) rnp ear</p>
<p>Q30</p>	<p>Predict the output of the following code:</p> <pre> X = 3 if X>2 or X<5 and X==6: print("ok") else: print("no output") </pre> <p>(A) ok (B) okok (C) no output (D) none of these</p>
<p>Q31</p>	<p>Predict the output of the following code:</p> <pre> i=1 while(i>0): i+=1 print(i) </pre> <p>(A) 6 (B) 100 (C) 10 (D) Infinite</p>
<p>Q32</p>	<p>Consider the following code segment:</p> <pre> a = int(input("Enter an integer: ")) b = int(input("Enter an integer: ")) if a <= 0: b = b + 1 else: a = a + 1 if a > 0 and b > 0: print ("W") elif a > 0: print("X") if b > 0: print("Y") else: print("Z") </pre>

	<p>What letters will be printed if the user enters -1 for a and b</p> <p>(A) Only W (B) Only X (C) Only Y (D) Only Z</p>
Q33	<p>Find the output of the following code snippet:</p> <pre>for x in range (1,4): for y in range(2,5): if x*y >10: break print(x*y,"", end= ' ')</pre> <p>(A) 2 3 4 4 6 8 6 9 (B) 2 3 4 5 6 7 6 9 (C) 2 3 4 3 6 8 6 9 (D) 2 3 3 4 6 8 6 9</p>
Q34	<p>What will be the output of given Python code?</p> <pre>Str1="HELLO" C=0 for X in Str1: if(X!="L"): C=C+1 else: pass print(C)</pre> <p>(A) 2 (B) 0 (C) 4 (D) 3</p>
Q35	<p>What does the following Python program display if the input is entered as 'END' ? (Ignoring the next input value)</p> <pre>name="" while True: Name =input(" Enter name ('end to exit'):") if Name=="end" : break print("Hello", Name) else: print("Wasn't it Fun ?")</pre> <p>(A) Hello end (B) hello END (C) Hello END (D) Hello End</p>

Q36	<p>Which one of the following if statements will not execute successfully?</p> <p>1.if (1,12,2) : print('foo')</p> <p>2.if(1,2): print('foo')</p> <p>3.if(1): print('foo')</p> <p>4. if(1); print('foo')</p> <p>(A) 1,4 (B) 2 (C) 2,4 (D) 4</p>
Q37	<pre>import random r=random.randint(10,100)-10 print(r, end= ' ') r=random.randint(10,100)-10 print(r,end = ' ') r=random.randint(10,100)-10 print(r)</pre> <p>Write the possible outcomes of the above code . What can be the maximum and minimum number generated by line 2 ?</p> <p>(A) 100 11 10 (B) 101 13 10 (C) 100 13 10 (D) 100 12 10</p>
Q38	<p>Choose the correct option from the following coding:</p> <pre>for i in range (1,10): if i%3==0: continue else: print(i ,end= ' ')</pre> <p>(A) 1,2,4,5,7,8,9 (B) 1 2 4 5 7 8 (C) 1 2 4 5 6 8 (D) 1 2 3 4 5 6</p>

Q39	<p>An empty /null statement in Python is</p> <p>(A) pass (B) none (C) null (D) None</p>
Q40	<p>Give the output for the following code.</p> <pre>>>> S='abc' >>> A=input("enter a string") enter a string abc >>> S is A</pre> <p>(A) abc (B) True (C) 'abc' (D) False</p>
Q41.	<p>Mala wants to make a fun program , if user enters any number , a Good or funny Message will appear. She is confused that which is the most suitable control to be used to make such program. Help her to choose correct option.</p> <p>(A) if (B) if else (C) if elif (D) Nested if else</p>
Q42	<p>Which type of error do you expect from the line of statement int("Z10")</p> <p>(A) Type Error (B) IO Error (C) Value Error (D) Semantics Error</p>
Q43	<p>Which of the following is False regarding loops in Python?</p> <p>(A)Loops are used to perform certain tasks repeatedly.</p> <p>(B)while loop is used when multiple statements are to executed repeatedly until the given condition becomes true.</p> <p>(C)while loop is used when multiple statements are to executed repeatedly until the given condition becomes false</p> <p>(D)for loop can be used to iterate through the elements of lists.</p>
Q44	<p>Give the correct output.</p> <pre>>>> 7*8/5//2</pre> <p>(A) 4.0 (B) 7.0 (C) 5.0 (D) 6.0</p>
Q45	<p>What will be the output produced by the following code?</p> <pre>print(2*(‘No’+3*‘!’))</pre> <p>(A) No!!No!!</p> <p>(B) No!No!!!</p> <p>(C) No!!No!!!</p> <p>(D) No!!!No!!!</p>
Q46	<p>Donation in the range of 4000-5000 or guest=1(Choose the correct python code)</p> <p>(A)(donation>=4000 and donation<=5000) or guest= =1</p> <p>(B)donation>=4000 or donation<=5000 or guest= =1</p> <p>(C)donation>=4000 and (donation<=5000 or guest= =1)</p> <p>(D)onation>=4000 and donation<=5000) or guest= =1</p>

Q47 State which of the following statement are true.

1. if, elif , else are not compound statement.
2. Else if can be used in python.
3. Indentation while working with blocks is not necessary in python.
4. A break statement is a jumping statement. It skips the rest code but executes the immediate line followed after the code.

(A) 1 (B) 2,3 (C) 3 (D) 4

Q48 What will be the output of the following code

```

Msg="CompuTer"
Msg1=""
for i in range(0, len(Msg)):
    if Msg[i].isupper():
        Msg1=Msg1+Msg[i].lower()
    elif i%2==0:
        Msg1=Msg1+'*'
    else:
        Msg1=Msg1+Msg[i].upper()
print(Msg1)

```

(A) cO*P*t*R (B) Co*p*t*R (C) co*p*t*r (D) cOP*tR

Q49 Raju was solving a puzzle in which he wants to count the number of spaces. Help him to complete the following code.

```

>>>str1=input("Enter the string")
_____ // Statement 1

```

(A) print(str1.count(' ') + 1) (B) print(str1.count(' '))
(C) print(str1.cnt(' ')) (D) print(str1.cnt('')+1)

Section-C

Case Study based Questions. This section consists of 6 Questions (50 -55) Attempt questions. ONLY first 5 answers will be considered for evaluation.

A game is arranged between all the students of class - X, where the students will be distributed in sub-groups and different tasks will be given to them. As a Computer Science student, Vikash has been assigned the duty to make the sub-groups. Vikash has decided to collect the first letter of the name of every student and make a line out of that i.e. str1="starsofdavodisha". As a friend of Vikash from the same department you help him to complete the task successfully.

-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1
s	t	a	r	s	o	f	d	a	v	o	d	i	s	h	a
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Q50	Write a python statement to make a sub-group by taking the first four characters i.e. 'star' from the given line? (A) str1[:3] (B) str1[:4] (C) str1[:5] (D) str1[:2]
Q51	Find the sub-group generated from the code:- >>> str1 [2 : 7 : 2] (A) 'as' (B) 'asf' (C) 'rod' (D) 'aro'
Q52	How will you make a sub-group as 'odisha'? (A) str1 [10 :] /str1[10:17] (B) str1 [8 :] /str1[10:15] (C) str1 [7 :] /str1[10:14] (D) str1 [10 :] /str1[10:16]
Q53	Which function Vikash can use to get the initial position of sub-string 'odisha' from str1? (A) str1.replace('odisha') (B) str1.find('odisha') (C) str1.find('odisha',-3) (D) str1.find('odisha',15)
Q54	Suggest the correct code snippet to get the line in reverse order. (A) str1 [: : -1] (B) str1 [0,15,-1] (C) str1 [-1,0,-1] (D) str1 [: -1]
Q55	Fill in the blank in Line1 to print the line with 1 st character in capital letter i.e. 'Computer science' . (A) str1.capitalize() (B) str1.uppercase() (C) str1.title() (D) str1.titlecase()