O. P. JINDAL SCHOOL, SAVITRI NAGAR Half – Yearly Examination (2023 – 2024)

Class: XI

MM:70

Subject: Computer Science (083)

Time: 3 Hr

(Fifteen Minutes Extra will be given for reading the Question Paper.)

General Instructions:

- 1. The question paper is divided into 5 sections A, B, C, D and E.
- 2. Section A, consists of 18 questions (1-18). Each question carries 1 marks.
- 3. Section B, consists of 07 questions (19-25). Each question carries 2 marks.
- 4. Section C, consists of 05 questions (26-30). Each question carries 3 marks.
- 5. Section D, consists of 03 questions (31-33). Each question carries 5 marks
- 6. Section E, consists of 02 questions (34-35). Each question carries 4 marks
- 7. All programming questions are to be answered using Python Language only.

Real Consider the loo or i in range(7,4 break .4 Which comment	b. Floating Point p given below .What will	c. Decimal be the final value of c.7 c.Single line	d.6	Mark 1 1
Real Consider the loo or i in range(7,4 break .4 Which comment	b. Floating Point op given below .What will 4,-2): b.5 ts start with # symbol? b.Multi-line	c. Decimal be the final value of c.7 c.Single line	f i after the loop?	1
or i in range(7,4 break .4 Which comment .Double line	b.5 ts start with # symbol? b.Multi-line	c.7	d.6	222
Which comment Double line	ts start with # symbol? b.Multi-line	c.Single line		1
Which of the fol	lowing are invalid identif	* 0		
.Percentage	b. In_time	c.Sol2	d.2_Num	1
	tnown as impact printer? b. Dot Matrix printer	c. Ink jet printer	d. All of these	1
SCII can represent	b. 6	c. 7	d. 8	1
Data items having fixed value are called a. identifiers b. functions keywords d. literals				1
Function range(10,5,2) will yield an iterable sequence like				
	identifiers inction range(identifiers b. functions	identifiers b. functions keywords unction range(10,5,2) will yield an iterable sequence like	identifiers b. functions keywords d. literals unction range(10,5,2) will yield an iterable sequence like

9	An empty/null statement in python is					
	a.go	b.pass	c.over	d.None		
10	What will be the result of the expression 'false' or False?					
	a.false	b.False	c.'false'	d.'False'		
11		put of the following c	ode:		1	
	x=3 If $x>2$ or $x<5$ and $x==6$:					
	print("ok")					
	else: print("no o	stmut'')				
	a. ok	b. okok	c. no output	d. none of above		
12	In Python,	defi	nes a block of statem	ents.	1	
	DI I	1.1	* 4	1.0		
	a. Block	b.loop	c.indentation	ı d.{}		
13	Which of the fo	Which of the following is an escape sequence for a newline character?				
	a. \a	b. \t	c. \n	d. \b		
14	What will be the output of following python statement: - print("foo+bar")					
	a. foo+bar	b. foobar	c. FooBar	d. none of these		
	a. 100 · 0ai	0. 1000an	C. TOOBai	d. none of these		
15	Which of the	following is a valid	statement in python?		1	
	a. $abc = 1,000$	0,000	b. $a b c = 1000 200$	00 3000		
	c. a,b,c = 1000, 2000, 3000 d. a b c = 1,000,000					
16	What is the output of print("ABC"<"abc")?					
	a.True	b.False	c.0	d.Error		
		그리는 사무를 하는 것 같아 없는 사람들이 없는 것이 없는 것이 없는 것이 없는 것이 없었다.		ning based, answer the		
	questions by choosingone of the following responses: a. Both A and R are true and R is the correct explanation of A.					
	b. Both A and R are true but R is not the correct explanation of A.					
		but R is false. but R is true.				
	u. Alsause	but K is truci				
17		ot a low-level languag ish-like words and sin		ry easy to understand to humans.	1	
18		orts multiple execution			1	
	the same of the sa		o enter and execute one file containing multiple	e statement at a time, while statements.		
			SECTION-B			
			question carries 2 m			
19	Write the corre	sponding Python expr	essions for the following	ng mathematical expressions.	2	

	a.A = $P\left(1 + \frac{r}{n}\right)^{nt}$ b. $(x - y)(x + y) = x^2 - y^2$				
	OR	1			
	Evaluate the following operations as a Python interpreter would:				
	a. 2//3*6+9 b. (2+2)**(2-1)/2				
20	What will be the output produced by these?				
	a.12/4 b.14.0//4 c.14//14 d.14.0%4				
	a.12/4 b.14.0//4 c.14//14 d.14.0%4				
21	Find error in the following code (if any) and correct code by rewriting code and underline				
	the correction; -				
	30=To				
	for K in range(0,TO): IF k%4=0:				
	print(K*4)				
	Else:				
	print(K+3)				
22	Predict the output of the following code	-			
Television of	i=0;				
	sum=0				
	while i<9:				
	if $i\%4 = 0$:	-			
	sum=sum+i				
	i=i+2				
	print(sum)				
23	What is difference between mutable and immutable date types? Explain with example				
24	Write a program using math module to find the hypotenuse of a right-angled triangle when				
	lengths of two sides are user defined. OR				
	Write a program using statistics module to create a user defined list of 7 elements and to print				
	the mean, median and mode of the list.				
25	Write a program in python to check if a given number is palindrome or not.				
	OR				
	Write a program in python to check if a given number is a perfect number or not.				
	SECTION- C				
2/	Each question carries 3 marks				
26	a) Differtiate between break and continue statements using examples.				
27	b) What is an infinite loop? Give one example.				
27	Write a program to implement a simple calculator for two input numbers. Offers choices through a menu.	9			
28	Input three angles and determine if they form a triangle or not.				
29	Explain the below mathematical functions in math module along with an example.				
20	a) Log	1			
	b) Pow				
	c) Degrees	4			
	d) Floor				
	e) Exp				
	f) fabs				
30	i. What is the need of RAM? How does it differ from ROM?	-			
50	ii. What is the need for Secondary Memory?				
		10			

	Draw the block diagram of a computer system. Briefly write about the functionality of at least 3components.	
	Section-D Each question carries 5 marks	
31	a) What is an Algorithm & Flowchart?b) Draw a flowchart to find the sum of first 50 natural numbers.	2+3
32	What are tokens in Python. Explain each token with an example.	5
33	a) 11101.101 Binary to Decimal b) 9E1B Hexadecimal to Decimal c) 456 Octal to Hexadecimal d) 889 Decimal to Octal e) 4A8C Hexadecimal to Binary	5
	Section-E	
	Each question carries 4 marks	4
34	What is Operator in Python? List out the types of operators in python. Explain any 4 types of operators in detail with an example.	
35	Write a program to check (i) Whether a number entered by the user is POSITIVE, NEGATIVE or ZERO. (ii) To check whether a number entered by the user is ODD or EVEN	4