SET-A

BE GOOD **DO GOOD**

OM SADHANA CENTRAL SCHOOL

ANNUAL ASSESSMENT EXAMINATION (2020-2021)

SUBJECT CODE- 1107

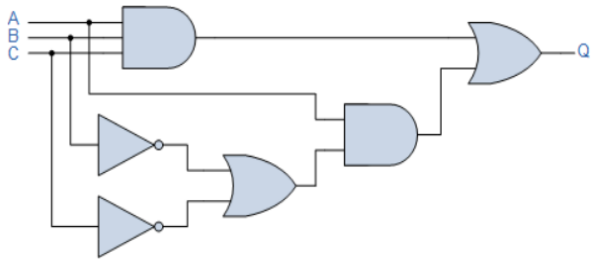
MARKS : 70 **EXAM NO :**

DURATION : 3.00 Hrs. **DATE : 01/03/2021**

General Instructions:

1. This question paper contains two parts A and B. Each part is compulsory.
2. Both Part A and Part B have choices.
3. Part-A has 2 sections:
   a. Section–I is short answer questions,to be answered in one word or one line.Attempt any 15 questions.
   b. Section – II has two case studies questions. Each case study has 4 case-based sub parts.
4. Part - B is Descriptive Paper.
5. Part- B has three sections
6. Section-I is short answer questions of 2 marks.
7. Section-II is long answer questions of 3 marks.
8. Section-III is very long answer questions of 4 marks.
9. All programming questions are to be answered using Python Language only

	PART-A **SECTION-I**	
Q1.	Find all valid identifiers from the following (i)a_b (ii) none (iii)5result (iv) True	**[1]**
Q2.	Which of the following is used to hold the running program instructions? (i) PrimaryStorage (ii) VirtualStorage (iii) InternalStorage (iv) Minor Device	**[1]**
Q3.	Boolean expression Y+YZ =? (i)Y (ii)Z (iii)1 (iv) 0	**[1]**
Q4.	2's compliment of 1010 is (i)110 (ii)1111 (iii)1010 (iv) 0	**[1]**

Q5.	Which of the following are not valid string in Python? (i)"Hello" (ii)'Hello' (iii)"Hello' (iv) {Hello}	**[1]**
Q6.	Which of the following is not a valid encoding scheme for characters ? (i) ASCII (ii) Unicode (iii) ISCII (iv) ESCII	**[1]**
Q7.	Python was developed by..... February1991.	**[1]**
Q8.	Python code can run on a variety of platforms, it means Python is a _____ language. (i) Independed (ii) Graphical (iii) Cross-platform (iv) all the above	**[1]**
Q9.	The smallest individual unit in a program is known as a _____	**[1]**
Q10.	Which of the following are valid operator in Python: (i) */ (ii) is (iii) ^ (iv) like	**[1]**
Q11.	When the following code runs, how many times is the line x=x*2 executed ? X=1 while(X<10): X=X*2 (i) 9 (ii) 2 (iii) 5 (iv) 10	**[1]**
Q12.	Given the string s1="python programming" Write the output of: s1[::-1]	**[1]**
Q13.	The boolean expression of following logic circuit is : *  (i) $(A.B.C)+A.(\overline{B}+\overline{C})$ (ii) $A\ \overline{B+C}+B.A$ (iii) A.B+C+(B'+C').A (iv)A+B+C(A+B)	**[1]**
Q14.	Backward index -1 belongs to _____ of string. (i) First character (ii) Last character (iii) Second last character (iv) Second character	**[1]**

Q15.	Which of the following functions will return the total number of characters in a string? (i) len() (ii) count() (iii) index() (iv) find()	**[1]**

Q16.	What is the
	output?
	a = 5
	if x:
	print ("Good")
	else:
	print("By")
		[1]

Q17.	What will be the output of above Python code? str1="6/4" print("str1") (i)1 (ii)6/4 (iii)1.5 (iv) str1	**[1]**
Q18.	Which of the following can add a list of elements to a list? (i) append() (ii) extend() (iii) add() (iv) none of these	**[1]**
Q19.	Identify the valid declaration of R1: R1={'one':100,'Two':2000} (i) List (ii) Tuple (iii) Dictionary (iv) Set	**[1]**
Q20.	Which of the following is not a type of cyber criminals? (i) Unauthorized account access (ii) Email spoofing and spamming (iii) Mass attack using Trojans as botnets (iv) Report vulnerability in any system	**[1]**
Q21.	In Python, how are arguments passed? (i) pass byvalue (ii) pass byreference (iii) It gives options to user to choose (iv) Both A andB	**[1]**
	PART-A **SECTION** **II**	
	Each case study has 4 case-based sub parts.	

Q22.	The school offers wireless facility (wifi) to the Computer Science students of Class XI. For communication, the network security staff of the school have a registered URL schoolwifi.edu. On 17 September 2017, the following email was mass distributed to all the Computer Science students of Class XI. The email claimed that the password of the students was about to expire. Instructions were given to go to URL to renew their password within 24 hours.  	
	(a) Do you find any discrepancy in this email?	**[1]**
	(b) What will happen if the student will click on the given URL?	**[1]**
	(c) Is the email an example of cyber crime? If yes, then specify which type of cyber crime is it. Justify your answer	**[1]**
	(d) Whether this is example of Identity theft?	**[1]**
Q23.	Suggest appropriate functions for the following tasks:	
	(a) To check whether all letters of the string are in capital letters.	**[1]**
	(b) To remove all white space from the beginning of a string.	**[1]**
	(c) To check whether the string contains digits.	**[1]**
	(d) To convert the first letter of a string to upper case.	**[1]**
	PART-B **SECTION-I**	
Q24.	Predict the output of following code snippet: (i) ``` x,y=20,60 y, x, y=x,y-10,x+10 print(x,y) ``` (ii) ``` a,b=12,13 c,b=a*2,a/2 print(a, b,c) ```	**[2]**

Q25.	Differentiate mutable and immutable objects in python.	**[2]**

Q26.	Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code:
	A=input("Enter the number")
	B=input("Enter the number")
	If(A>B)
	  print("A is big")
	Else if(B>A)
	  print("B is big")
	else
	  Print("Both are equal")
		[2]

Q27.	Differentiate between identity operator and membership operator.	**[2]**
Q28.	Find and write the output of the following Python program code : >>>a="120" >>>b="222" >>>a+b*3	**[2]**
Q29.	Explain the following terms: (i) Compiler (ii) Interpreter	**[2]**
Q30.	Name the law shown below and verify it using a truth table. **A +BC=(A+B)(A+C)**	**[2]**

Q31.	Predict the output of the following code:
	a=msp44@gmail.com
	s=" "
	for i in a:
	  if i.isalpha():
	  s=s+i.upper()
	  elif i.isdigit():
	  s=s+"33"
	  else:
	  s=s+"@"
	print(s)
		[2]

Q32.	Convert the following base of number system: (i) $(548)_{10}$=(.....)16 (ii) $(1201)_{10}$=(.....)2 (iii) $(72905)_{10}$ =(.....)16 (iv) $(108)_{10}$=(.....)16	**[2]**
Q33.	What is the difference between a keyword and an identifier?	**[2]**

	PART-B **SECTION-II**	
Q34.	Write the full form of the following : i) ASCII ii) IDLE iii) FLOSS	**[3]**
Q35.	Consider the following string mySubject: mySubject = "Computer Science" What will be the output of the following string operations : a) print(mySubject[0:len(mySubject)]) b) print(mySubject[-7:-1]) c) print(mySubject[::2])	**[3]**
Q36.	Explain about list and tuple with suitable examples.	**[3]**
Q37.	What will be the output of the following statements? A. list1 = [12,32,65,26,80,10] list1.sort() print(list1) B. myList =[1,2,3,4,5,6,7,8,9,10] del myList[:5] print(myList) C. list1 =[1,2,3,4,5,6,7,8,9,10] list1[::-2] list1[:3] + list1[3:] D. list1 =[1,2,3,4,5] list1[len(list1)-1]	**[3]**
Q38.	Differentiate between interact mode and script mode in python.	**[3]**
	PART-B **SECTION-III**	
Q39.	Write a program that creates a GK quiz consisting of any five questions of your choice. The questions should be displayed randomly. Create a user defined function score() to calculate the score of the quiz and another user defined function remark (score value) that accepts the final score to display remarks as follows:	**[4]**

		Marks	**Remarks**
		5	Outstanding
		4	Excellent
		3	Good
		2	Read more to score more
		1	Need to take interest
		0	General knowledge will always help you. Take it seriously.
Q40.	Program to find prime numbers between 2 to 50 using nested for loops.		**[4]**
Q41.	Write a function that checks whether an input number is a palindrome or not. [***Note***: A number or a string is called palindrome if it appears same when written in reverse order also. Forexample, 12321 is a palindrome while 123421 is not a palindrome]		**[4]**