

KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION
SESSION ENDING EXAM (2024-25)
SUBJECT: COMPUTER SCIENCE (083)
Class: XI

Max. Marks: 70

Time: 3 Hours

General Instructions:

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In case of MCQ, text of the correct answer should also be written.

Q. No	Section-A (21 x 1 = 21 Marks)	Marks
1	Which symbol is used to represent processing in flow charts? a) circle b) rectangle c) diamond d) parallelogram	1
2	Which of the following is not a token a) keyword b) identifier c) expression d) operator	1
3	What will be the output of the following statement: <code>print(4+2**3**2-5//11%3)</code> a) 66 b) 46 c) 516 d) 494	1
4	What is the output of the following code <code>print(str([1,2,3]))</code> a) '123' b) '1,2,3' c) [1,2,3] d) error	1
5	State True or False: "In a Python program if break statement is executed in a loop then loop's else block will be executed".	1
6	Which gate produces 0 when all inputs are HIGH. a) NAND b) NOT c) AND d) OR	1
7	Using someone else's twitter handle to post something without his/her knowledge, will be termed as a) Fraud b) Identity Theft c) Online stealing d) Violation	1
8	Which of the following expression will result in an error a) <code>'3' * 3</code> b) <code>(3) * 3</code> c) <code>[3] * 3</code> d) <code>{3:3} * 3</code>	1
9	Which of the following statement(s) would give an error during execution of the following code? <code>s = 'Python supremacy'</code> <code>print(s)</code> #Statement 1 <code>print(s[0]+ 'O')</code> #Statement 2 <code>s[0] = 'p'</code> #Statement 3 <code>print(max(s))</code> #Statement 4 a) Statement 1 b) Statement 2 c) Statement 3 d) Statement 4	1
10	Which one of the following is in correct ascending order of size for nibble, byte, kb, bit, mb a) bit<byte<nibble<mb<kb b) nibble<byte<bit<kb<mb c) bit<byte<nibble<kb<mb d) bit<nibble<byte<kb<mb	1

11	_____ is a system software that translates and executes instructions written in a computer program line-by-line. a) Assembler b) Interpreter c) Compiler d) None of these	1
12	Which encoding scheme has code points for all the known languages a) ASCII b) Unicode c) ISCII d) none of these	1
13	$(3984.75)_{10} = ()_{16}$ a) F90.C b) 9F.4B c) F90.4B d) 9F.C	1
14	Unlawfully gaining sensitive information of someone by posing as genuine entity a) Spamming b) Hacking c) Cracking d) Phishing	1
15	Sarah's classmate sent her a message on Facebook "You are a Loser". Sarah is a victim of: a) Phishing b) Eavesdropping c) Cyber bullying d) Trolling	1
16	A program which appears safe and genuine but actually is not a) Spyware b) Worm c) Trojan d) Adware	1
17	Which of the following sequences would be generated by the given line of code? range(5, 0, -2) (a) 5 4 3 2 1 0 -1 (b) 5 4 3 2 1 0 (c) 5 3 1 (d) None of the above	1
18	Exploring appropriate and ethical behaviors related to online environments and digital media is called. (a) Cyber ethics (b) Cyber Security (c) Cyber safety (d) Cyber law	1
19	An antivirus software protects against (a) Virus attack (b) Phishing and pharming (c) Both (A) & (B) (d) None of these	1
	Q 20 and 21 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	
20	Assertion (A): According to research conducted by Symantec, nearly 8 out of 10 individuals are subject to the different types of cyber bullying in India. Reasoning (R): Don't give or post any personal information like your name, address of the school/office/home, phone numbers, age, gender, credit card details etc.	1
21	$d = \{1:11, 2:22, 3:33\}$ <code>print(11 in d)</code> Assertion (A): Output of above code is False. Reasoning (R): Membership operator does not check for values in a dictionary but only for keys.	1
Section-B (7 x 2=14 Marks)		
22	Write a python program which reads a list of numbers from user and prints all the numbers from the list which are not divisible by 3. For e.g. if list is [5,13,9,15,18,22,21] Output should be – 5 13 22	2
23	Draw logic circuit for following Boolean expressions: (i) $AB' + B(A+C)$ (ii) $(AB+BC)(AC)$	2

24	Correct and rewrite the following code underlining all the corrections. <pre> x=int(input("Enter speed")) if x>120: print("Vehicle impounded") else x=>80: print("Fine 2000 Rs.) else: print("Good to go") </pre> OR Write output of the following code: <pre> x=1531 s=0 while x>0: a=x%10 s=s+a x=x//10 print(s) </pre>	2
25	What is output of the following code: <pre> x=5 y=(5) print(type(x)) print(type(y)) </pre>	2
26	In the following code check where is the error and when will that error occur during compile time or run time? <pre> a=int(input("Enter first number")) #statement 1 b=0 #statement 2 c=a/b #statement 3 print(c) #statement 4 </pre>	1+1=2
27	What is Plagiarism? Write two ways to avoid it. OR Write two net etiquettes.	2
28	Write two ways of e-waste management.	2
Section-C (3 x 3 = 9 Marks)		
29	Predict the output of the Python code given below: <pre> text = "Atm19hty!" new = '' count = 0 for i in text: if text[count]>='0' and text[count]<='9': new+=str(int(text[count])+1) elif text[count]>='A' and text[count]<='Z': new+=text[count].lower() elif text[count]>='a' and text[count]<='z': new+=str(count) else: new+='*' count+=1 print(new) </pre>	3
30	What is an Operating System? Write any two functions of OS.	3

31	Write Python code to generate following pattern: <pre> 1 2 3 4 5 1 2 3 4 1 2 3 1 2 1 </pre> OR Write a program to input the value of x and n and print the sum of the given series: $1+x+x^2+x^3+x^4+\dots\dots\dots X^n$	3
Section-D (4 x 4 = 16 Marks)		
32	Dharamveer a Python programmer is working on a mathematical project and tried creating a code for it. Suggest him a module and function from that module which can be used for the following tasks (i) To calculate absolute value of a number. (ii) To calculate mean from a list of marks. (iii) To generate a random number between 1 to 6 (both values included). (iv) To generate a random number between 0(included) and 1(excluded).	1*4=4
33	Amit made a friend online whom he doesn't know in real life and has never met. After some time, he started posting demeaning statements about him. (i) What is happening to Amit? (ii) What action should he take? (iii) Which law in India addresses this activity? (iv) What steps should be followed to avoid this kind of activity?	1*4=4
34	Mr. Shyam is trying to develop a program based on list manipulations. He is supposed to add/remove elements in the list. Help him to write the most appropriate list method to perform the following tasks in the list. Name of list is Marks=[10,20,30,40,50,60] (i) delete an element value 20 from the list. (ii) get the position of an element 40 in the list (iii) delete the 3rd element from the list (iv) add single element 70 at the end of the list OR add another list [80,90,100] at the end of the list.	1*4=4
35	Write a python code to read a string and Count alphabets, digits, and special symbols from a given string. Given: str1 = "P@#yn26at^&i5ve" Expected Outcome: Total counts of chars, digits, and symbols Alphabets = 8 Digits = 3 Symbols = 4	4
SECTION E (2 X 5 = 10 Marks)		

36	a) Write output for the following s = "Incredible India" (i) print(s[:5:]) (ii) print(s[9:-9:-1]) (iii) print(s[5:-2:1]) (iv) print(s[::-1]) b) Write a Python program to get a year from user and print whether it is a leap year or not. (Leap year is a non-century year divisible by 4 e.g. 1984. Whereas a century year is divisible by 400 e.g. 1600)	2+3=5
37	Mihir took part in a Code Challenge and was presented with following incomplete codes with problem statement each. Help Mihir to win the Code Challenge – (i) Write code for Fibonacci Series where every next term is sum of previous two terms <pre> f=0 s=1 print(f) print(_____) for i in range(10): t=_____ print(t) f=s s=_____ </pre> #Statement-1 #Statement-2 #Statement-3 (ii) Complete the code to calculate sum of digits of a number <pre> n=input("Enter a number :") s=_____ for i in n: s=_____ </pre> #Statement-1 #Statement-2	3+2=5