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| **HY/CSAK/1122/A 17-OCT-2022** | | | |
| **HALF YEARLY EXAMINATION 2022-23**  **Answer Key** | | | |
| **Subject: COMPUTER SC (083)**  **Grade: XI** | | Max. Marks: 70Time: 3 Hrs | |
| **Qno** | **SECTION A** | | Mark |
| **1.** | b. No output | | **1** |
| **2.** | a. continue | | **1** |
| **3.** | d. '1'+2 | | **1** |
| **4.** | b. whitespace | | **1** |
| **5.** | a. / | | **1** |
| **6.** | d. abstraction | | **1** |
| **7.** | d. System Software | | **1** |
| **8.** | a. not, and, or | | **1** |
| **9.** | c. 7 | | **1** |
| **10.** | c. object code | | **1** |
| **11.** | b. Input/Output | | **1** |
| **12.** | Escape sequence | | **1** |
| **13.** | Indian Standard Code for Information Interchange | | **1** |
| **14.** | False | | **1** |
| **15.** | 4 | | **1** |
| **16.** | elif , 3min | | **1** |
| **17.** | i. 9 characters/bytes ii. 8 characters/bytes | | **1** |
| **18.** | List/Dictionary | | **1** |
|  | **SECTION B** | |  |
| **19.** | **x=int(input("Enter the value of x:"))**  **for y in range(0,10):**  **if x==y:**  **print("They are equal")**  **elif x>y:**  **print(x,"is greater")**  **else:**  **print(y,"is greater")**  **(1/2 mark each error)** | | **2** |
| **20.** | **i. 0**  **ii. False Both are not equal**  **-1**  **(1 mark each)** | | **2** |
| **21.** | **111001101010011112**  **1CD4F16** | | **2** |
| **22.** |  | | **2** |
| **23.** | The microcontroller is a small computing device which has a CPU, a fixed amount of RAM, ROM and other peripherals all embedded on a single chip as compared to microprocessor that has only a CPU on the chip.  Example: Microwave, washing machine, remote controls, pen drives. | | **2** |
| **24.** | Source code refers to high level code or assembly code which is generated by human/programmer. Source code is easy to read and modify. It is written by programmer by using any High-Level Language or Intermediate language which is human-readable.  Object code refers to low level code which is understandable by machine. Object code is generated from source code after going through compiler or another translator. It is in executable machine code format. Object code contains a sequence of machine understandable instructions to which Central Processing Unit understands and executes. | | **2** |
| **25.** | **i. x>y and y%5==0**  **ii. Account==”Savings” or Balance >5000** | | **2** |
|  | **SECTION C** | |  |
| **26.** | **+ 200)**  bill=0  > | | **3** |
| **27.** | **x= 12 y= 480**  **12**  **482** | | **3** |
| **28.** |  | | **3** |
| **29.** | n=int(input("Enter the number of terms"))  x=float(input("Enter the value of X"))  sum=1  sign=-1  for i in range(1,n+1):  factorial=1  if i%2==0:  for j in range(1,i+1):  factorial\*=j  term=sign\*((x\*\*i)/factorial)  sum+=term  sign\*=-1  print("The sumation of cosine of ",x ,"to", n,"terms=",sum)''' | | **3** |
| **30.** | i. Syntax errors are mistakes in the use of the Python language, and when rules of programming language like spelling or grammar mistakes in a language . Example:  print Hello  will be syntax error as correct syntax is print(“Hello”)  What is runtime error explain?  A runtime error occurs when a program is syntactically correct but contains an issue that is only detected during program execution. Example:  Division by zero error  (2 marks)  ii. In Python and many other programming languages, a single equal mark is used to assign a value to a variable, whereas two consecutive equal marks is used to check whether 2 expressions give the same value . (x==y) is False because we assigned different values to x and y.  (1 mark) | | **3** |
| **31.** | i. 24E  ii. 1276  iii. 695  vi. 469  v. 1834  ( 1 mark each) | | **5** |
| **32.** | i. num=int(input("Enter a number"))  sum=0  for i in range(1,num):  if num%i==0:  sum+=i  if sum==num:  print("Its a perfect number")  else:  print("Its not a perfect number")  ii.  a=int(input("Enter a number"))  b=int(input("Enter second number"))  gcd=1  if a<b:  small=a  else:  small=b  for i in range(1,small+1):  if a%i==0 and b%i==0:  gcd=i  lcm=a\*b//gcd  print("GCD=",gcd)  print("LCM=",lcm)  (2.5 marks each) | | **5** |
| **33.** | chr  ch  i+1  6  K | | **5** |
| **34.** | i. (X.Y‘)‘+(Z‘+W)  ii. 0 + X = X 1.X = X  iii. De Morgan's Theorem  (X+Y)' = X'Y'  (XY)' = X'+ Y'  iv.  NAND gate- Not of and is known as Nand . (A.B)’.It produces an output 1 when any of the inputs is 0.  Truth table   |  |  |  | | --- | --- | --- | | **X** | **Y** | **(X.Y)’** | | 0 | 0 | 1 | | 0 | 1 | 1 | | 1 | 0 | 1 | | 1 | 1 | 0 |   Symbol  X  Y  (X.Y)‘  (1 mark each) | | **4** |
| **34.** | i.  1  $$  3  $$  5  $$  7  Divisible by 7  See You Again  ii.  1  $$  3  $$  5  $$  7  Divisible by 7  9  $$  See You Again  (2 mark each) | | **4** |

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