Thumb drive No:		
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新加坡海星中学

MARIS STELLA HIGH SCHOOL
PRELIMINARY EXAMINATIONS
SECONDARY FOUR

COMPUTING **7155/02**
Paper 2 Practical (Lab-based) **28 August 2020**
2 hours 30 mins

Additional Materials:
Electronic version of COMPANY.XLS file
Electronic version of DEPOSITS.PY file
Electronic version of CASHBACK.PY file
Insert Quick Reference for Python

READ THESE INSTRUCTIONS FIRST

SOLUTION

For Examiner's Use
50

This document consists of **6** printed pages.

Task 1

Question	Answer	Marks
1	=MID(D4;10;2) =MID(D5;10;2) =MID(D6;10;2) =MID(D7;10;2) =MID(D8;10;2) =MID(D9;10;2) =MID(D10;10;2) =MID(D11;10;2) =MID(D12;10;2) Acceptable: RIGHT(D4;2) This is in the next syllabus but not in current syllabus	2

Question	Answer	Marks
2	=VLOOKUP(E4;$B$18:$C$22; 2) =VLOOKUP(E5;$B$18:$C$22; 2) =VLOOKUP(E6;$B$18:$C$22; 2) =VLOOKUP(E7;$B$18:$C$22; 2) =VLOOKUP(E8;$B$18:$C$22; 2) =VLOOKUP(E9;$B$18:$C$22; 2) =VLOOKUP(E10;$B$18:$C$22; 2) =VLOOKUP(E11;$B$18:$C$22; 2) =VLOOKUP(E12;$B$18:$C$22; 2)	2

Question	Answer	Marks
3	=G4*H4 =G5*H5 =G6*H6 =G7*H7 =G8*H8 =G9*H9 =G10*H10 =G11*H11 =G12*H12	1
	Answer	**Marks**
	=F4+I4 =F5+I5 =F6+I6 =F7+I7 =F8+I8 =F9+I9 =F10+I10 =F11+I11 =F12+I12	1

Question	Answer	Marks
4	**Total Cost** $270.00 $510.00 $160.00 $260.00 $327.00 $475.00 $170.00 $235.00 $260.00	1

Question	Answer	Marks
5	=SUM(J4:J12)	1

Question	Answer	Marks
6	=LARGE(G4:G12;2)	2

Task 2

Question	Answer	Marks
7	if names[i].startswith('D'):	1
8(a)	print("The total amount of deposits are: ", sum(deposits))	2
8(b)	print("The average amount of deposit is: ", round(sum(deposits)/len(deposits)))	3

8(c)	for i in range(len(names)):
	  if names[i].endswith('n') and len(names[i]) == 4:
	  print("Customer name is {}, Deposit amount is {}".format(names[i], deposits[i]))
		4

	MYDEPOSITS.PY
	`names = ['Joy', 'Mary', 'John', 'Dean', 'Siva']`
	`deposits = [540.35, 525.60, 539.50, 500.05, 570.95]`
	
	`for i in range(len(names)):`
	`  if names[i].startswith('D'):`
	`  print("Customer name is {}, Deposit amount is {}".format(names[i], deposits[i]))`
	
	`print("The total amount of deposits are: ", sum(deposits))`
	`print("The average amount of deposit is: ", round(sum(deposits)/len(deposits)))`
	
	`for i in range(len(names)):`
	`  if names[i].endswith('n') and len(names[i]) == 4:`
	`  print("Customer name is {}, Deposit amount is {}".format(names[i], deposits[i]))`	

Task 3

Question	Answer	Marks

9	Errors are underlined
	
	`customers = False`
	`count = 10`
	
	`while customers == True:`
	`  exp = int(input("Enter expenditure for quarter: "))`
	`  rewards = int(input("Enter rewards accumulated: "))`
	
	`  if exp >= 500 and rewards >= 1000:`
	`  print("Customer receives 5 percent cashback.")`
	`  count = count += 1`
	`  elif exp > 300 and rewards >= 700:`
	`  print("Customer receives 3 percent cashback.")`
	`  elif exp >= 200:`
	`  print("Customer receives 2 percent cashback.")`
	`  else`
	`  print("No cashback discount.""")`
	
	`  more_cust = int(input("Any more customers? Type Y or N: "))`
	
	`  if more_cust == 'Y':`
	`  customers = False`
	`  else:`
	`  customers = False`
	
	`print("Total customers who qualify for 5 percent cashback are: " + count)`	

	Corrected Lines	
1	`customers = True`	1
2	`count = 0`	1
3	`if exp >= 500 or rewards >= 1000:`	1
4	`count = count + 1`	1
5	`  elif exp >= 300 and rewards >= 700:`	1
6	`else:`	1
7	`print("No cashback discount.")`	1
8	`more_cust = input("Any more customers? Type Y or N: "`	1
9	`if more_cust == 'Y':` `  customers = True`	1

10	`print("Total customers who qualify for 5 percent cashback are: " + str(count))`
	
	`OR`
	
	`print("Total customers who qualify for 5 percent cashback are: " count)`
		1

Task 4

Question	Answer	Marks
10	Print 6 chances at the start	
	Ask for user input of a word with 6 or fewer letters	
	Validation of word Ask user to re-enter with correct message while len(word) > 6: word = input("Please re-enter a word with maximum of 6 letters: ")	
	Create a new list with length equal to that of the word.	
	Use of a loop with correct terminating condition	
	Ask for input of a letter	
	Checks if letter is found within the word Output “Letter found in word.” if letter is found. Output “Letter not found.” if letter is not found.	

Question	Answer	Marks
11	Screenshot of Test 1	
	Screenshot of Test 2	

Question	Answer	Marks
12	Create a new list to store indexes Check if letter is found in word Stores all index(es) of the word where letter is found	
	Using the indexes, update the list to overwrite character with letter found Output the list to show all found letters	
	Check chances used up Output "Game over. All chances used!"	
	If user guesses all letters correctly before 6 chances are used Output “You win!” and break	

Sample Code:

```
#TASK 4 WORDGUESS2.PY

print("You have 6 chances to guess a word.") #1m
word = input("Enter a word to guess. Must be 6 or fewer letters: ") #1m

while len(word) > 6: #2m for validation of length
      word = input("Please re-enter a word with maximum of 6 letters: ")

guess = list('-' * len(word)) #1m
print(guess)
```

```
CHANCES = 6
count = 0

while CHANCES > 0: #2m outer loop for 6 chances
   letter = input("Enter a letter: ") #1m

   if letter in word: #1m
         print("Letter found in word.")

         indexes = [] #1m
         for i in range(len(word)):
               if word[i] == letter: #1m
                     indexes.append(i) #1m

         for index in indexes: #1m
               guess[index] = letter #1m
         print(guess) #1m

         if "-" not in guess: #1m
            print("You win!")
            break

   else:
         print("Letter not found.") #1m

   CHANCES = CHANCES - 1

if CHANCES == 0: #1m
      print("Game over. All chances used!")
```

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