## Course Details

| Course Title: | Programming Fundamentals |
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| Instructor: | Engr Muhammad Waqas |

## Student Details

Name: $\qquad$
Saheeb Ul Hassan

Module:
Total Marks: $\qquad$
02
30

Student ID: 16318

| Q1 | (a) | Write a program in python where you input two integer values from user and determine if the first integer is the multiple of the second integer. | Marks 5 |
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|  | (b) | Write a program in python for a shopping mall to determine if the customer has exceeded the credit limit on a charge account. <br> Program should input the following facts in five variables <br> 1. Account number <br> 2. Balance at the beginning of month (Beginning balance) <br> 3. total of all items charged by customer this month (charges) <br> 4. total of all credits (credits) <br> 5. allowed credit limit <br> Calculate the new balance <br> New balance $=$ Beginning balance + charges - credits <br> Your program must determine if the new balance exceeds the allowed credit limit. If credit <br> limit is exceeded then program should display the message "Credit Limit exceeded." | Marks 5 |
| Q2 | (a) | 1. Steps that involve precise sequence to solve a problem is called <br> a. Statement <br> b. Program <br> c. Utility <br> d. Routine <br> 2. In an if structure statements are executed only, <br> a. When the condition is false <br> b. When it contain arithmetic operators <br> c. When it contain logical operators <br> d. When the condition is true | $\begin{array}{c}\text { Marks } \\ 14\end{array}$ <br> CLO 1 |


|  |  | 3. Which of the following can not be a variable name? <br> a. Area <br> b. _area <br> c. 10area <br> d. area2 <br> 4. Which loop process is best when the number of iterations is known? <br> a. for <br> b. while <br> c. again <br> d. all looping processes require that the iterations be known <br> 5. Which special character is in the end of a string to indicate the end? <br> 1. new line <br> 2. tab <br> 3. null <br> 4. carriage return <br> 6. A total of $\qquad$ bytes are occupied by the following variable. <br> txt $=$ "programming fundamentals" <br> 7. Commenting the code $\qquad$ <br> a. Makes a program easy to <br> b. Make programs heavy, i.e. more understand for others. space is needed for executable. <br> c. Makes it difficult to compile <br> d. All of the given options |  |
| :---: | :---: | :---: | :---: |
| Q3 | (a) | Write a program in python that will create and display the following series in the output using the formula $2 x^{2}-3 x$ : $65,44,27,14,5,0,-1,2,9,20$ | Marks 2 <br> CLO 1 |
|  | (b) | You have the following python code, draw the flow chart of the whole code $\begin{aligned} & \text { numbers }=\text { range }(10,20) \\ & \text { sum }=0 \end{aligned}$ <br> for i in numbers: $\begin{gathered} \text { sum = sum + i } \\ \text { print("Total Sum = ", sum) } \end{gathered}$ | Marks 3 <br> CLO 1 |


| Q1 | num1= input("Enter first integer: ") |
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| PAR |  |
| TA | num2= input("Enter second integer: ") <br> output= int(num1) \% int(num2) <br> if output==0 : <br> print("First integer is multiple of the second") <br> else : <br> print("first integer is not multiple of second") |
| Q1 <br> part <br> b | acc=input("Enter account number":) <br> bal=input("Enter balance at the beginning of month ":) <br> charges=input("Enter total of all items charged by customer this month ":) |


|  | ```credits=input("Enter total of all credits":) allowed=input("Enter allowed credit limit ":) new_bal=bal+charges-credits if new_bal>allowed: print("Credit limit exceeds") else: print("Your new balance is",new_bal)``` |
| :---: | :---: |
| Q2 | 8. Steps that involve precise sequence to solve a problem is called <br> e. Statement <br> f. Program <br> g. Utility <br> h. Routine <br> 9. In an if structure statements are executed only, <br> e. When the condition is false <br> f. When it contain arithmetic operators <br> g. When it contain logical operators (b) When the condition is true <br> 10. Which of the following can not be a variable name? <br> e. Area <br> f. _area <br> 10area <br> h. area2 <br> 11. Which loop process is best when the number of iterations is known? <br> e. for <br> f. while <br> g. again <br> h. all looping processes require that the iterations be known <br> 12. Which special character is in the end of a string to indicate the end? <br> 5. new line <br> 6. tab <br> null <br> 8. carriage return <br> 13. A total of $22 \ldots$ bytes are occupied by the following variable. $\qquad$ $\mathrm{txt}=$ "programming fundamentals" <br> 14. Commenting the code $\qquad$ <br> (e) Makes a program easy to <br> f. Make programs heavy, i.e. more understand for others. space is needed for executable. <br> g. Makes it difficult to compile <br> h. All of the given options |
| $\begin{array}{\|l\|} \hline \text { Q3 } \\ \text { part } \\ \text { a } \\ \hline \end{array}$ | ```numbers[-5,-4,-3,-2,-1,0,1,2,3,4] for \(i\) in numbers output \(=2 *\left({ }^{*}{ }^{*}\right)-3{ }^{*} \mathrm{i}\) Print("series is",output)``` |
| $\begin{array}{\|l\|} \hline \text { Q3 } \\ \text { part } \\ \text { b } \\ \hline \end{array}$ |  |



