



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

COMPUTER SCIENCE AND ENGINEERING

TUTORIAL QUESTION BANK

2018 - 2019

Course Name	:	SCRIPTING LANGUAGES
Course Code	:	A80537
Class	:	IV B. Tech II Semester
Branch	:	Computer Science and Engineering
Year	:	2018 – 2019
Course Faculty	:	Ms. Y Harika Devi, Assistant Professor, CSE Ms. CH.Srividya, Assistant Professor, CSE

OBJECTIVES

The course demonstrates an in depth understanding of the tools and the scripting languages necessary for design and development of applications dealing with Bio- information/Bio-data. The instructor is advised to discuss examples in the context of Bio-Data/Bio-information application development.

S. No	Question	Blooms Taxonomy Level	Course Outcomes
UNIT – I			
PART – A (SHORT ANSWER QUESTIONS)			
1	Write a program to process a list of numbers in Perl.	Understand	1
2	Write syntax to add two arrays together in Perl.	Understand	2
3	How many types of operators are used in Perl?	Remember	2
4	List out the data types that Perl can handle?	Remember	1
5	How can you call a subroutine and identify a subroutine?	Remember	1
6	State the advantages of c over Perl?	Understand	2
7	Explain which feature of Perl provides code reusability?	Remember	1
8	What does -> symbol indicates in Perl?	Remember	2
9	Explain USE and REQUIREMENT statements?	Remember	1
10	Explain what is Chop & Chomp function does?	Remember	2
11	Define Polymorphism in Perl?	Remember	1
12	Define closure concept in Perl?	Remember	2
13	What are the applications of Modern Scripting?	Remember	2
14	Define Visual Scripting concept.	Remember	1
15	Define Web Scripting. Specify the areas used in web scripting.	Remember	2
16	List out the numeric and string built in functions available in Perl .	Remember	2

17	Discuss about STDIN Variable with an example.	Understand	1
18	What are string operators available in Perl?	Remember	2
19	Explain input/output and file manipulation functions with an example.	Remember	1
20	Explain Split and join functions with an example.	Remember	2
21	What function would you use to find the index value of an array if you know the value of the data stored there?	Remember	1
22	How does the scalar function evaluate an expression if it's an array?	Remember	2
23	What is meant by the term scope?	Remember	1
24	How can you remove duplicates in an array?	Remember	2
25	What function extracts both keys and values from a hash?	Remember	1
26	How do you sort a numeric array? How do you sort a hash by value?	Remember	2
27	What does the map function do in Perl?	Remember	2
28	What is the difference between splice and slice?	Remember	1
29	What is the difference between chop and chomp?	Remember	1
PART – B (LONG ANSWER QUESTIONS)			
1	Explain various built-in operators and pattern matching modifiers in Perl.	Remember	1
2	Describe the role of whitespaces in PERL. Describe Perl Subroutines?	Understand	2
3	Explain the different types control statements available in Perl. Discuss about them with examples.	Understand	1
4	Explain about accessing, creating and processing of arrays with an example in Perl.	Remember	1
5	Illustrate a brief note on special variable in Perl. Explain about scalar expressions in Perl.	Understand	2
6	Illustrate the characteristics of scripting languages. List the applications of scripting languages?	Understand	1
7	Write a Perl script to find the maximum and minimum numbers in list of arguments?	Understand	2
8	Define regular expression. Explain about Regular Expressions in Perl?	Remember	2
9	Explain in detail about subroutines. Describe at least two subroutines used in Perl?	Understand	1
10	Discuss about scalar data, numeric constants and string constants with examples?	Understand	1
11	Define names and values concept in Perl with examples.	Remember	2
12	Illustrate Control Structures with an example in Perl.	Understand	1
13	Discuss built-in functions available in Perl with an example.	Understand	2
14	Explain the concept of arrays and lists in Perl with an example.	Understand	1
15	How can create hashes, manipulate hashes and invert a hash in Perl.	Remember	2
16	What is “scalar” context, “list” context, “void” context? Would you be able to write an example to demonstrate how they differ?	Remember	2

S. No	Question	Blooms Taxonomy Level	Course Outcomes
17	Explain sysread and syswrite functions with an example in Perl.	Remember	1
18	How can u define subroutine and call a subroutine in Perl. Explain it with an example.	Remember	1
19	Explain about local and global variables concept with an example	Remember	1
20	Write a regular expression syntax to extract your name and print the same.	Understand	2
21	List out all modes available in Perl and explain them.	Remember	2
22	Explain about seek function in Perl with an example.	Remember	2
23	What are the modifiers available in Perl explain them with an example?	Remember	2
24	Write a Perl script to capture all the prime numbers between 2 and a number the user gives by the user.	Understand	2
PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)			
1	Explain the various operators available in PERL and compare the relational operators and logical operators.	Remember	1
2	Write a program to concatenate the \$first string and \$second string and result of these strings should be separated by a single space?	Understand	2
3	Analyze some duplicate entries in an array and you want to remove them. How would you do that?	Understand	1
4	Evaluate IP Address validation in PERL?	Remember	1
5	Analyze the substitute for the nth occurrence in PERL?	Remember	2
6	Explain how to empty an array in PERL.	Remember	1
7	Explain the functioning and conditional structures in PERL.	Understand	2
8	Write the program to process a list of numbers?	Understand	1
9	Discuss the logical operators small scale operations?	Understand	2
10	Explain how to connect SQL Server through PERL.	Remember	1
11	Write about the data structures used in PERL Scripts?	Understand	2
12	Discuss how to create internet ware applications using PERL scripts with an illustration example.	Understand	1
13	Write a script that will ask the user for his five favorite foods (read from STDIN). The foods will be stored as a string in a scalar, each food separated by a comma. a. Split the scalar by the comma and create an array. b. Print the array. c. Print the first and last elements of the array	Understand	1
14	Write a Perl script called elective that will contain a hash. The keys will be code numbers—2CPR2B, 1UNIX1B, 3SH414, 4PL400. The values will be course names—C Language, Intro to UNIX, Shell Programming, Perl Programming. Sort the hash by values and print it	Understand	1
15	Write a Perl script called tell me that will print out the names, phones, and salaries of all the people in the datebook file.	Understand	2
16	The following array contains a list of values with duplicates. @animals=qw(cat dog bird cat bird monkey elephant cat elephant pig horse cat); a. Remove the duplicates with the built-in map function.	Understand	1

S. No	Question	Blooms Taxonomy Level	Course Outcomes
	b. Sort the list.		
17	Given the array @names=qw(Nick Susan Chet Dolly Bill), write a Perl statement that would do the following: a. Replace Susan and Chet with Ellie, Beatrice, and Charles. b. Remove Bill from the array. c. Add Lewis and Izzy to the end of the array. d. Remove Nick from the beginning of the array. e. Reverse the array	Understand	2
UNIT-II			
PART – A (SHORT ANSWER QUESTIONS)			
1	Explain load testing on websites.	Remember	3
2	What is the importance of Perl warnings?	Understand	3
3	Explain the arguments for Perl Interpreter.	Remember	4
4	What are prefix dereferencer?	Remember	3
5	Explain "grep" function in Perl.	Understand	4
6	How can arrays be tied in Perl?	Remember	3
7	How many ways can we express string in Perl?	Remember	4
8	What is Perl one-liner?	Understand	4
9	How do you connect to database in Perl?	Remember	3
10	Discuss about Last, next and redo commands.	Understand	4
11	What is a filehandle and write the syntax to create filehandle in Perl.	Remember	3
12	What is typeglob in Perl.	Remember	4
13	Define array of arrays in Perl with an example.	Understand	3
14	Define Complex data structures in Perl.	Remember	4
15	List out the file status checks available in Perl.	Remember	3
16	Define eval function and syntax in Perl.	Understand	3
17	Define ref function and syntax in Perl.	Understand	4
18	How can you create a class in Perl.	Remember	3
19	Explain about Perl Constructor.	Remember	4
20	Explain about Perl Destructor.	Remember	4
PART – B (LONG ANSWER QUESTIONS)			
1	Explain OLE automation server in Perl.	Remember	3
2	Discuss with an example the execution of a simple Perl program.	Understand	3
3	Describe about the operating system interface that is common to UNIX and Windows NT?	Understand	4
4	Explain type globs and give it's usage for aliases and file handles. What are the different types of Looping Statements in PHP	Remember	3
5	Explain the purpose of #! Directive in Perl. Explain about Pack and unpack Functions.	Remember	4
6	Describe how to use packages and modules in PERL. What are the Features of PHP?	Understand	4

7	Describe a brief account on Perl interfacing to operating systems?.	Understand	3
8	Explain how to create internet ware applications using Perl scripts with an illustrative example.	Remember	4
9	Discuss about the data structures used in Perl scripts. Discuss various security issues in Perl?	Understand	3
10	Discuss subroutine prototypes. What are the different types of Looping Statements in PHP? Discuss them?	Understand	3
11	Discuss various File inclusion statements in PHP	Understand	4
12	List out and Explain the string functions in PHP.	Remember	4
13	List out the statements that are used to connect PHP with MySQL.	Remember	3
14	What are the different types of errors in PHP?	Understand	3
15	Explain about various data types in PHP.	Remember	4
16	How can u simulate C structs with pack and unpack functions?	Remember	3
17	Differentiate between shell scripting and Perl.	Understand	4
18	How to validate a form in PHP? Explain it with an example.	Remember	3
19	What are the built-in functions available in PHP?	Remember	4
20	How can you create a user define function in PHP explain it with an example?	Remember	4
PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)			
1	Write a program that throws six dice, generating random numbers between one and six. Display each number as it is thrown, and after six throws, show the sum, Use a for loop to throw the dice six times, using the same variable for each throw.	Understand	3
2	Explain sysread and syswrite functions. Give the process to embed PHP code in web pages.	Remember	3
3	Discuss about references to arrays and hashes. Illustrate how Regular Expressions are used in PHP.	Understand	4
4	Discuss about to create and refer anonymous data structures. Discuss about variables and constants in PHP.	Understand	4
4	What is meant by splicing arrays explain in context of list and scalar. Define function library in PHP.	Remember	3
5	Discuss in detail about creating internet- aware a applications. Write about the way to output data to the browser in PHP.	Understand	4
6	Explain how to create and use sockets. Discuss data types in PHP with examples.	Understand	4
7	Discuss about the perl's approach to provide security. Write about Expressions in PHP.	Understand	3
8	Why do you create an application for real time systems in which processes sing speed is vital?	Understand	4
9	Describe how to use Method Invocation. Write about functions in PHP.	Understand	3
10	Explain how inheritance is implemented in PERL.	Remember	4
11	Write PHP program for simple calculator.	Understand	3
12	Write a PHP program for shopping cart application with use of Cookies.	Understand	4
13	Explain about the control statements in PHP with example.	Remember	3

14	Write a program using PHP that creates the web application for result publication.	Understand	4						
15	Write a PHP program to print number triangle. Output: enter the range= 6 1 121 12321 1234321 123454321 12345654321	Understand	4						
16	Write PHP script to Generate Secure Random Number.	Understand	5						
17	Write PHP script to Store PHP Form Data Into Database (HTML).	Understand	5						
18	Write PHP script for Custom Search engine.	Understand	4						
19	Write PHP script To Send Mail Using PHP.	Understand	5						
20	Write PHP Script For Store Data On Database.	Understand	4						
21	Write a PHP program to print out the sum of pairs of numbers of a given sorted array of positive integers which is equal to a given numbers.	Understand	4						
22	Write a PHP program to print out the multiplication table upto 6*6. Go to the editor Output: 1 2 3 4 5 6 2 4 6 8 10 12 3 6 9 12 15 18 4 8 12 16 20 24 5 10 15 20 25 30 6 12 18 24 30 36	Understand	5						
23	Write a PHP program to remove duplicates from a sorted list.	Understand	4						
24	Write a PHP program to check the bits of the two given positions of a number are same or not.	Understand	5						
25	Note : Use HTML table elements into echo. Expected Output : <table><tr><td>Write a e PHP script to display string, values within a table. Go to the editor Salary of Mr A is</td><td>1000\$</td></tr><tr><td>Salary of Mr B is B</td><td>1200\$</td></tr><tr><td>Salary of Mr C is</td><td>1400\$</td></tr></table>	Write a e PHP script to display string, values within a table. Go to the editor Salary of Mr A is	1000\$	Salary of Mr B is B	1200\$	Salary of Mr C is	1400\$	Understand	4
Write a e PHP script to display string, values within a table. Go to the editor Salary of Mr A is	1000\$								
Salary of Mr B is B	1200\$								
Salary of Mr C is	1400\$								

S. No	Question	Blooms Taxonomy Level	Course Outcome
UNIT-III			
PART – A (SHORT ANSWER QUESTIONS)			
MID-I			
1	Describe about the security vulnerability of PHP?	Understand	5
2	What is the actually used PHP version?	Remember	6
3	What is the function file_get_contents () useful for?	Remember	5
4	What is the function mysql_pconnect () useful for?	Remember	5
5	Differentiate between GET and POST methods?	Understand	6
6	How to set cookies in PHP?	Understand	6
7	Write down the code for save an uploaded file in php?	Understand	5
8	Define Object-Oriented Methodology in PHP.	Remember	6
9	Difference between mysql_connect and mysql_pconnect?	Understand	5
10	How can we validate form data in PHP?	Remember	5
11	What are the features of PHP?	Remember	6
12	What is the functionality of the function strstr and stristr?	Remember	5
MID- II			
13	Explain about Arrays in PHP.	Remember	6
14	What type of inheritance that PHP supports?	Understand	5
15	List out the predefined classes in PHP?	Remember	6
16	How will you concatenate two strings in PHP?	Remember	5
17	How to upload error messages in PHP?	Remember	6
18	Discuss about PHP's File-Upload Functions in PHP.	Understand	6
19	How to determine Whether a File Was Uploaded or not in PHP?	Remember	5
20	Explain the scenario in HTTP authentication in PHP.	Remember	6
21	Explain how to submit form without a submit button.	Understand	6
22	How to build a website by using PHP?	Remember	6
23	How to Move an uploaded file in PHP?	Remember	5
24	Discuss about PHP's file download functions in PHP.	Understand	6
PART – B (LONG ANSWER QUESTIONS)			
1	Explain about PCRE.	Understand	5
2	Discuss about parameter passing mechanisms of PHP.	Understand	6
3	List and discuss various data types available in PHP. How to Authenticate a PHP user?	Understand	6
4	Explain how to create and call a function in PHP. Explain with an example Script.	Remember	5
5	Discuss various file inclusion statements in PHP. Discuss different Authentication Mechanisms?	Understand	6
6	List the procedure for embedding multiple PHP code blocks in web pages with sample example?	Remember	5
7	Explain briefly the four delimitation variants of PHP. Discuss different Methodologies of PHP.	Remember	6
8	What is a web form in PHP? Explain it with an example.	Remember	5

S. No	Question	Blooms Taxonomy Level	Course Outcome
9	Explain the procedure to Convert Input into HTML Entities in PHP.	Remember	6
10	Explain with an example the creation of a function in PHP.	Remember	5
11	Give a brief account on Dirty Hands Internet Programming.	Remember	5
12	Discuss about string interpolation in PHP.	Understand	6
MID- II			
12	Discuss scalar and compound data types. Discuss File Handling Functions.	Understand	6
13	What are the benchmarks that determine the strength of a password in PHP?	Remember	6
14	Discuss about One-Time URLs and Password Recovery in PHP.	Understand	6
15	Explain looping statements in detail by giving appropriate examples.	Remember	6
16	Discuss how default values can be assigned to input arguments. Discuss about login administration?	Understand	5
17	Discuss the procedure for uploading files using PHP. Discuss about sending Email using PHP.	Understand	6
18	Write short notes on Mcrypt package and various encryption functions in PHP?	Understand	5
19	Explain the procedure to send a Plain-Text E-mail in PHP.	Remember	5
20	Explain Hard Coded, File Based methodologies in php?	Remember	6
21	Explain Database Based, IP Based methodologies in php?	Remember	6
PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)			
1	Explain the embedding of multiple code blocks with an example.	Remember	5
2	Discuss how variables can be automatically type casted to best fit the circumstances?	Understand	6
3	Explain the purpose of return() statement. Also explain, how multiple values can be returned.	Remember	5
4	Explain various forms of sort functions with a suitable example.	Remember	6
5	Explain the three methods that POSIX supports to identify different character sequences.	Remember	5
6	Discuss the seven PHP functions that search strings using POSIX- style regular expressions?	Understand	5
7	Explain how you can update Memory cached when you make changes to PHP?	Remember	6
8	Describe how to destroy a particular session or all sessions in PHP?	Understand	5
MID- II			
9	Write a SQL query that displays the difference between the highest and lowest salaries of a database table "employees". Label the column as DIFFERENCE?	Understand	6
10	What is the difference between \$x and \$\$x?	Remember	5
11	List and Explain PHP development framework?	Remember	6
12	Explain about database connectivity with PHP with suitable examples.	Remember	5

S. No	Question	Blooms Taxonomy Level	Course Outcome
13	How array is declared in PHP and Also explain various types of array with proper examples.	Remember	5
14	How strings are declared in PHP? Explain string operators.	Remember	6
15	Explain the procedure to ping a server in PHP with an example.	Remember	6
16	How to Localizing Dates, Numbers, and Times in PHP?	Remember	6
17	How can you Encryp the Data with MCrypt?	Understand	6
18	Explain the procedure to Decrypt the Data with MCrypt ?	Remember	6
19	How to generate binary files in PHP explain it with an example?	Remember	6
UNIT-IV			
PART – A (SHORT ANSWER QUESTIONS)			
1	Differentiate between regression and re-testing?	Understand	7
2	Write a regexp to match an ip address?	Understand	8
3	How do you find the length of a string without using string length command in Tcl?	Remember	7
4	How to run a package in Tcl?	Remember	8
5	How to increment each element in a list?	Remember	8
6	How to write a startup script in win runner?	Remember	7
7	How can we combine several extensions to provide all the features I want?	Remember	8
8	How can we create a standalone program in case Tcl isn't installed?	Remember	7
9	How can you create/use association lists or property lists?	Remember	8
10	Explain about append command in Tcl .	Remember	7
11	List out all format conversions in Tcl.	Remember	8
12	Explain about append proc Command in Tcl.	Remember	7
13	List out the file open access arguments in Tcl.	Remember	7
14	Explain about regexp command in Tcl.	Remember	8
15	What is the purpose of expr command in Tcl ?	Remember	8
16	Explain about puts and gets commands in Tcl.	Remember	7
17	List out all format flags in Tcl.	Remember	8
18	What is the purpose of scan command in Tcl?	Remember	7
19	Explain about format Command in Tcl.	Remember	8
PART – B (LONG ANSWER QUESTIONS)			
1	Describe TCL structure and give a brief note on example of parsing. Explain different input and output commands in TCL?	Understand	7
2	Explain about integrating TCL into an existing application. What are the different rules of TCL.	Remember	8
3	Discuss the event-model of TCL. How to add and delete members of a list in TCL.	Understand	7
4	Describe briefly about namespaces in TCL. Explain about Recursion and Procedures in TCL?	Understand	8
5	Explain the concept of event driven programming. Discuss security issues in Tcl.	Understand	6

S. No	Question	Blooms Taxonomy Level	Course Outcome
6	Write a short note on TK- Visual tool kits. List out some built-in functions in Python?	Understand	8
7	Explain events and its usage in TK with examples. List out Fundamental Concepts of Tk.	Remember	7
8	Explain the out load feature of TCL. Discuss various modules in Tcl.	Remember	8
9	Describe about integrating TCL into an existing application. Define Exception Handling?	Understand	8
10	Explain about Perl toolkits. Explain how it is different from TCL/TK.	Remember	8
11	Explain about llength, lindex, and lrange commands with example	Remember	8
12	Write a Tcl program to find a file by name.	Understand	7
13	List out Tcl commands used for file access	Remember	8
14	Explain about on the fly command in Tcl with example.	Remember	7
15	List out all Tcl file command options	Remember	8
16	Explain about exit And pid commands in Tcl.	Remember	8
17	List out POSIX flags for the access argument in Tcl.	Remember	8
18	Explain uplevel , eval, global Commands in Tcl with example.	Remember	7
PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)			
1	List out the important widget classes?	Remember	7
2	Explain with an example how Tk is used for implementing event driven programs.	Remember	7
3	Explain how to encrypt and decrypt data using MCrypt.	Remember	8
4	Describe the list of data structures in TCL with a sample code?	Understand	7
5	Explain three forms of substitutions.	Remember	8
6	Explain string operations with suitable examples.	Remember	7
7	Discuss about making applications internet aware?	Understand	8
8	Explain about integrating TCL into an existing application.	Remember	7
9	Discuss about creating new commands in C?	Understand	8
10	Discuss the list box and give an example how it will interact with scrollbars?	Understand	7
UNIT-V			
PART – A (SHORT ANSWER QUESTIONS)			
1	Write a program to sort a Data Frame in Python in descending order?	Understand	9
2	Write a program to sort an array in NumPy by the nth column?	Understand	10
3	What are some features of Pandas that you like or dislike?	Remember	10
4	What is Python? What are the benefits of using Python?	Remember	9
5	What is pickling and unpickling in Python?	Remember	10
6	Define Python decorators?	Remember	9
7	Define unit test in Python?	Understand	10

S. No	Question	Blooms Taxonomy Level	Course Outcome
8	What are generators in Python?	Remember	9
9	How can you convert a number to a string in Python?	Remember	10
10	Explain what are Flask and its benefits in Python.	Remember	9
11	What is a statement in a Python program?	Remember	10
12	What is the largest floating-point value available on your system?	Remember	10
13	What happens if you attempt to use a variable within a program, and that variable has not been assigned a value?	Remember	9
14	How can you assign more than one variable in a single statement in Python?	Remember	9
15	How is the value 2.45×10^{-5} expressed as a Python literal?	Remember	10
16	What is wrong with the following statement that attempts to assign the value ten to variable x? <code>10 = x</code>	Remember	10
17	How is the value 0.0000000000000000000000000000449 expressed as a Python literal?	Remember	9
18	What is the difference between the following two strings? <code>'n'</code> and <code>'\n'</code> ?	Remember	9
19	What can you do if a variable name you would like to use is the same as a reserved word?	Remember	9
20	What affect does the unary + operator have when applied to a numeric expression?	Remember	9
PART – B(LONG ANSWER QUESTIONS)			
1	Explain about the interaction between different components of a web framework.	Remember	9
2	Discuss documenting and testing python code. How to Build Efficient Python Web Systems?	Understand	10
3	Explain the built in functions and methods in python. Explain about Web Application Framework.	Remember	9
4	Explain how to handle an exception in python? Explain briefly. What are the different types of Lists and List methods in python?	Remember	10
5	Illustrate the classical web server architecture with a neat diagram. Explain type and range functions in Python with example?	Understand	9
6	Describe how data imports from modules into the python programming environment?	Understand	9
7	Explain in detail about Apache web server and its Python oriented extensions?	Remember	9
8	Discuss about 12 core practices of extreme programming. Discuss different Modules in Python Language?	Understand	9
9	Explain the distinction between top-down and bottom-up approach in Python?	Remember	10
10	Describe different types of operators supported by python with an example for each?	Understand	9

S. No	Question	Blooms Taxonomy Level	Course Outcome
11.	What are modules? Explain how data imports from modules into the python programming environment.	Remember	10
12	Write a Python program containing exactly one print statement that produces the following output: A B C D E C	Understand	9
13	Write a Python program that simply emits a beep sound when run.	Understand	10
14	Consider the following program that attempts to compute the circumference of a circle given the radius entered by the user. Given a circle's radius, r, the circle's circumference, C is given by the formula: $C = 2\pi r$ $r = 0$ $PI = 3.14159$ # Formula for the area of a circle given its radius $C = 2*PI*r$ # Get the radius from the user $r = \text{eval}(\text{input}(\text{"Please enter the circle's radius: "}))$ # Print the circumference $\text{print}(\text{"Circumference is"}, C)$ (a) The program does not produce the intended result. Why? (b) How can it be repaired so that it works correctly?	Understand	9
15	Write a Python program that requests an integer value from the user. If the value is between 1 and 100 inclusive, print "OK;" otherwise, do not print anything.	Understand	9
16	Write a program that accepts a comma separated sequence of words as input and prints the words in a comma-separated sequence after sorting them alphabetically. Suppose the following input is supplied to the program: without, hello, bag, world Then, the output should be: bag, hello, without, world.	Understand	9
17	With a given integral number n, write a program to generate a dictionary that contains (i, i*i) such that i is an integral number between 1 and n (both included). and then the program should print the dictionary.	Understand	10

S. No	Question	Blooms Taxonomy Level	Program Outcome
	Suppose the following input is supplied to the program: 8 Then, the output should be: {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}		
18	Write a Python program to multiply a 5x3 matrix by a 3x2 matrix and create a real matrix product.	Understand	10
19	Write a Python program to find the roots of the following polynomials. a) $x^2 - 4x + 7$. b) $x^4 - 11x^3 + 9x^2 + 11x - 10$	Understand	9
20	Write a program that accepts a sentence and calculate the number of letters and digits. Suppose the following input is supplied to the program: hello world! 123 Then, the output should be: LETTERS 10 DIGITS 3	Understand	10
PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)			
1	Explain different ways of passing arguments to functions.	Remember	9
2	Draw and explain the namespace relationship between an application and imported modules?	Understand	10
3	How do you create your own exception?	Remember	9
4	Write a Python Program To Display Powers of 2 Using Anonymous Function?	Understand	10
5	Explain how to use an array to animate and track multiple objects?	Remember	9
6	Explain the prior example to show how to manage a game with levels?	Remember	10
7	Write a python program to find numbers divisible by another number?	Understand	9
8	Write a python program to find hash of a file?	Remember	10
9	Explain briefly about how to build an efficient web system using python?	Understand	10
10	Write a Python program that allows the user to enter any number of non-negative floating-point values. The user terminates the input list with any negative value. The program then prints the sum, average (arithmetic mean), maximum, and minimum of the values entered. The terminating negative value is not used in the computations.	Understand	9
11	Consider the following Python code fragment: # i, j, and k are numbers if i < j: if j < k: i = j else: j = k else: if j > k:	Understand	10

S. No	Question	Blooms Taxonomy Level	Program Outcome
	<pre>j = i else: i = k print("i =", i, " j =", j, " k =", k)</pre> <p>What will the code print if the variables i, j, and k have the following values?</p> <p>(a) i is 3, j is 5, and k is 7 (b) i is 3, j is 7, and k is 5 (c) i is 5, j is 3, and k is 7 (d) i is 5, j is 7, and k is 3 (e) i is 7, j is 3, and k is 5 (f) i is 7, j is 5, and k is 3</p>		
12	Write a Python program that requests five integer values from the user. It then prints the maximum and minimum values entered. If the user enters the values 3, 2, 5, 0, and 1, the program would indicate that 5 is the maximum and 0 is the minimum. Your program should handle ties properly; for example, if the user enters 2, 4 2, 3 and 3, the program should report 2 as the minimum and 4 as maximum.	Understand	9
13	Write a Python program that requests five integer values from the user. It then prints one of two things: if any of the values entered are duplicates, it prints "DUPLICATES"; otherwise, it prints "ALL UNIQUE".	Understand	9
14	<p>Consider the following Python program that prints one line of text:</p> <pre>val = eval(input()) if val < 10: if val != 5: print("wow ", end=") else: val += 1 else: if val == 17: val += 10 else: print("whoa ", end=") print(val)</pre> <p>What will the program print if the user provides the following input?</p> <p>(a) 3 (b) 21 (c) 5 (d) 17 (e) -5</p>	Understand	10
15	Write a Python program that allows the user to enter exactly twenty floating-point values. The program then prints the sum, average (arithmetic mean), maximum, and minimum of the values entered.	Understand	9

S. No	Question	Blooms Taxonomy Level	Course Outcome
16	Write a program that accepts a sentence and calculate the number of upper case letters and lower case letters. Suppose the following input is supplied to the program: Hello world! Then, the output should be: UPPER CASE 1 LOWER CASE 9	Understand	10
17	Use a list comprehension to square each odd number in a list. The list is input by a sequence of comma-separated numbers. Suppose the following input is supplied to the program: 1,2,3,4,5,6,7,8,9 Then, the output should be: 1,3,5,7,9	Understand	9
18	Write a program in Python which will find all such numbers between 1000 and 3000 (both included) such that each digit of the number is an even number. The numbers obtained should be printed in a comma-separated sequence on a single line.	Understand	10
19	Write a program in Python that accepts sequence of lines as input and prints the lines after making all characters in the sentence capitalized. Suppose the following input is supplied to the program: Hello world Practice makes perfect Then, the output should be: HELLO WORLD PRACTICE MAKES PERFECT	Understand	10
20	Define a function in Python that can accept two strings as input and print the string with maximum length in console. If two strings have the same length, then the function should print all strings line by line.	Remember	9

Prepared by: Y Harika Devi, Assistant Professor, CSE

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