



Padalsalai's Telegram Groups!

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12th Computer Science –

Important One Mark Questions

CHAPTER - 1

1. A function is a unit of code.
2. Subroutines are the basic blocks of computer programs.
3. In programming languages subroutines are called functions.
4. parameters are variables.
5. Arguments are values.
6. A function definition which call itself called recursive function.
7. An interface is a set of action that an object can do.
8. Implementation carries out the instruction defined in the interface.
9. Pure functions are functions which will give exact result when the same arguments are passed.
10. Impure function cause side effects.
11. When you write the type annotations the parentheses are mandatory.
12. Definitions are distinct syntactic blocks.

CHAPTER - 2

1. Splitting a program is called modules.
2. Abstract data type is a type for objects whose behavior is defined by a set of values and operations.
3. To facilitate data abstraction , we will need to create two functions constructor , destructor.
4. constructors are functions that build the abstract data type.
5. Selectors are functions that retrieve information from the data type.
6. A rational number is a ratio of integers.

7. A tuple is a comma separated values surrounded with parentheses.
8. A class is bundled data and functions.
9. bundling of two values together into one called pair.
10. pair is a compound structure.
11. list is constructed by placing expressions within square brackets separated by commas.
12. the elements of a list can be accessed in two ways.
13. the two ways of accessing element in list is multiple assignment, element selection operator.
14. A representation of data type is known is called concrete data type.
15. A representation of data type is unknown is called abstract data type.

CHAPTER - 3

1. scope refers to visibility of variables.
2. namespaces are containers for mapping names of variables to objects.
3. = sign is used to map variable name to object
4. The process of binding variable name with an object is called mapping.
5. The scope of variable is part of code where it is visible.
6. LEGB rule is used to decide the order in which the scopes are to be searched for scope resolution.
7. There are 4 types of variable scope.
8. Local scope refers to variable defined in current function.
9. A module is a part of program.
10. A variable which is declared outside of all functions is known as Global scope.
11. A function with in another function is called nested function.
12. Pre loaded program scope refers to Built in scope.

13. Module segments can be invoked by its names and parameters.
14. Access control is a security technique that regulates who or what can view or use resources in computing environment.
15. All members in a python class are public by default.
16. protected members of class are accessible with in class and its sub class.
17. a variable can be changed as private by adding double underscore before variable name.
18. All members in c++ , java are private by default.
19. Object oriented languages are C++ and JAVA.
20. Modules contains instruction , processing logic and data.

CHAPTER - 4

1. An algorithm is a finite set of instruction to accomplish a particular task.
2. The way of defining an algorithm is called algorithm strategy.
3. An algorithm that yields expected output for a valid input called an algorithmic solution.
4. Analysis of algorithms and performance evolution can be divided in to two phases (i.e.) priori estimates, posteriori testing.
5. Two main factors of algorithm time factor, space factor.
6. Asymptotic notations are languages that uses meaningful statements about time and space.
7. Big O is used to describe worst case of an algorithm.
8. Big Ω is used to describe best case of an algorithm.
9. Big Θ is used to describe better case of an algorithm.
10. linear search is called sequential search.
11. binary search is called as half interval search algorithm.
12. Bubble sort algorithm compares each pair of adjacent elements and swap them if they are in the sorted order.

13. memoization is a technique to store the results of programming language.
14. Fibonacci series generates the subsequent of numbers by adding two previous numbers.
15. selection sort needs minimum number of swaps.
16. when a sub problem used several times, the problem posses overlapping sub problems.

CHAPTER - 5

1. python language created by Guido van rossum.
2. python language released in 1991.
3. python program can be written in interactive mode and script mode.
4. The interactive can also be used as simple calculator.
5. python scripts are reusable code.
6. Creating script in python by choose File->new file or CTRL+N.
7. The >>> prompt indicates that interpreter ready to accept instruction.
8. python files are save with extension .py
9. To execute python script choose Run->Run module of press F5.
10. comma(,) is used as separator in print().
11. In python comments begin with # symbol.
12. python uses whitespaces such as spaces and tabs.
13. python breaks each logical line into a sequence of elementary lexical components known as tokens.
14. Tokens are classified into five types.
15. python identifier is case sensitive.
16. operators are symbols which represent computation ,coditional matching.
17. values and variables when used with operator are known as operands.

18. A relational operator is also called as comparative operator.
19. AND,OR,NOT are logical operators.
20. simple assignment operator is =.
21. Ternary operator is known as conditional operator.
22. literal is raw data given in variable or constant.
23. In python there are three types of literals.
24. Numeric literal supports 3 types such as integer,float,constant.
25. Sequence of characters surrounded by quotes called string.
26. Triple quotes used for multiline string.
27. python has 6 built in data types such as number, string, boolean,tuples,list,dictionary.
28. All data values in python are objects.
29. back slash(\) is called as escape character.
30. Boolean data can have two values true or false.
31. Keywords are special words.

CHAPTER - 6

1. Programs contains set of statements.
2. A program statement that causes a jump of control from one part of program to another part is called control structures.
3. Execute set of statements multiple times called iteration or looping.
4. Skip a segment and execute another segment based on test condition is called alternative or branching.
5. In python there are 3 control structures.
6. elif can be used instead of 'else'.
7. elif clause combines if...else-if..else statement.

8. A loop statement allows to execute statements or set of statements.
9. python provide two types of looping. (i.e) while loop and for loop.
10. for loop is most comfortable loop in python.
11. for loop and while loop is called as entry check loop.
12. Indentation plays major role in python.
13. Jump statements in python are break,continue,pass.
14. break statement terminates the loop.
15. pass statement is used as placeholder.

CHAPTER - 7

1. Functions are named block of code.
2. In python there are 4 types of function.(i.e.) user defined function, built in function, lambda function, recursive function.
3. Function help us to divide a program in to modules.
4. function arguments are 4 types (i.e.)required arguments, keyword arguments, default arguments, variable length arguments.
5. Required arguments are the arguments passed to a function in correct positional order.
6. keyword arguments will invoke the function after the parametera are recognized by their parameter names.
7. default arguments takes default value if no value is provided.
8. Non keyword variable length arguments are called tuples.
9. Lambda function can only access global variable.
10. to define a function def keyword is used.
11. At the end function declaration : should be used.
12. We should use global keyword when we call global keyword inside a function.

13. ASCII value of A is 65.
14. id() returns the address of variable.
15. type() returns the data type of given object.
16. chr() returns the Unicode character of given ASCII value.
17. value returned by a function can be used by another function is called composition.
18. system limitation can be changed by sys.setrecursionlimit(limit value).
19. * is used for unknown variable length arguments.
20. The condition is applied in function is called base condition.

CHAPTER - 8

1. Array of characters is string.
2. String in python can be created by using single, double, triple quotes.
3. Strings are immutable.
4. To remove entire string by using del command.
5. + operator is used to concatenate strings in python.
6. Slice is a substring of main string.
7. slicing operator is [].
8. python consider as start value as 0.
9. python consider the end value as n-1.
10. stride refers stride as third argument.
11. The formatting operator is %.
12. %c denotes character.
13. %s denotes string.

14. %u denotes unsigned decimal integer.
15. %o denotes octal integer.
16. %f denotes floating point numbers.
17. %e or %E denotes Exponential notation.
18. %g or %G denotes short numbers in floating point or exponential notation.
19. The format() used with strings.
20. len() is used to returns the length of the string.
21. capitalize() is used to capitalize the first character of the string.
22. ord() returns the ASCII code of the character.
23. chr() is used to returns the character represented by a ASCII.
24. in and notin operators can be used with strings to determine whether a string is present in another string.
25. membership operators are in and notin .
26. Escape sequence starts with a backslash.
27. The substring may be positive or negative.
28. In a string python allocate an index value is known as subscript.
29. Defining strings within triple quotes treated as multiline string.
30. the format() used { } used as placeholders or replacement fields.
31. The default value of stride is 1.
32. Python take last value as n-1.
33. Python takes value in reverse order by negative value.
34. del command is used to delete entire string.

Chapter-9

1. python programming language has four dtatypes such as list,tuples,set,dictionary.
2. list is sequence data type.
3. list is ordered collection of values enclosed within [].
4. Each value of list is called as elements.
5. list containing another list is known as nested list.
6. Index value of list begins with zero.
7. The initial value of loop must be 0.
8. python sets -1 as the index value for the last element in list.
9. get last element in a list and so on is called as Reverse indexing.
10. for loop is used to access all the elements in a list one by one.
11. list element or range of elements can be changed by using simple assignment operator =.
12. insert() is used to insert an element at any position of a list.
13. del statement is used to delete known elements.
14. remove() is used to delete unknown elements.
15. clear() is used to delete all the elements in a list but retains the list.
16. pop() deletes and returns the last element of a list if the index is not given.
17. pop() is used to delete only one element from a list.
18. range(), list() can create a list with series of values.
19. range() has three arguments.
20. copy() returns a copy of list.
21. count() returns the number of similar elements present in the list.
22. index() returns the index value of first recurring element.

23. reverse() is used to reverse the order of the element in the list.
24. sort() is used to sort the elements in list.
25. sort() will affect the original list.
26. in sort() ascending is default.
27. If you want to sort elements in descending set reverse is true.
28. max() returns the maximum value in a list.
29. min() returns the minimum value in a list.
30. sum() returns the sum values in a list.
31. tuple is comma separated values enclosed within parentheses.
32. Iterating tuple is faster than list.
33. tuple() is used to create tuples from a list.
34. type() is used to know the datatype of python object.
35. tuple with one element is called singleton tuple.
36. print statement is used to print the elements.
37. tuple can be defined inside another tuple is called nested tuple.
38. for loop will be useful to access all elements in a list.
39. set is unordered collection of elements without duplicates.
40. set eliminating duplicate elements.
41. set is mutable.
42. sets cannot be repeated.
43. set is created by placing all the elements within pair of curly brackets.
44. set() is used to create sets in python.
45. dictionary is a mixed collection of elements.

46. The keys in python dictionary is separated by a colon(:).
47. Dictionary key value pairs are enclosed with curly braces{ }.
48. append(), extend() and insert() are used to include more elements in a list.

CHAPTER- 10

1. python is an object oriented programming language.
2. classes and objects are key features of object oriented programming.
3. class is main building block min python.
4. object is collection of data and function.
5. class is a template for the object.
6. Every class has a unique name followed by a colon(:).
7. variables defined inside a class are called as class variable.
8. functions defined inside class are called as methods.
9. variables and methods are together known as members of the class.
10. class can be defined anywhere in the program.
11. class member can be accessed by using dot(.) operator.
12. The process of creating object is called as class instantiation.
13. class method must have first argument named as self.
14. statement defined inside the class must be properly indented.
15. init() is act as constructor.
16. init() executed automatically when object is created.
17. init() can be defined with or without arguments.
18. init() is used to initialize class variables.

19. In python variables defined in a class is public by default.
20. A variable prefixed with double underscore becomes private.
21. __del__() is used as destructor.
22. A class is defined by a keyword class.

CHAPTER 11

1. A database is an organized collection of data.
2. datas are raw facts.
3. Information is formatted data.
4. database is a repository collection of related data.
5. A DBMS is a software.
6. Database can be divided in to 5 major components such as hardware,software,data,methods,database access language.
7. popular DBMS are FoxPro,Dbase.
8. Each row in a table represents a record.
9. Each column in a table represents a field.
10. row is known as TUPLE.
11. column is known as ATTRIBUTE.
12. database model classified in to five types.
13. Hierarchical model was developed by IBM.
14. Relational model was first proposed by E.F.CODD in 1970.
15. Hierarchical database model like a tree structure.
16. Hierarchical database model represents one-to-many relationship.

17. Hierarchical database model used in Mainframe computers.
18. Network model represents many-to-many relationship.
19. ER model developed by chen in 1976.
20. ER model is easy to design logical view of data.
21. Object model used in geographic information system(GIS),scientific experiments, engineering design and manufacturing.
22. Object model represents real world objects.
23. Manage complete database by DataBase Administrator(DBA).
24. DBA manages the license keys,user accounts and access etc.
25. Application programmers or software developers involved in developing and designing the parts of DBMS.
26. Database normalization was first proposed by Dr.Edgar F Codd.
27. Types of relationship used in database is 4.
28. Relational algebra was first created by Edgar F Codd at IBM.
29. Unary relational operations are SELECT (σ), PROJECT (π).
30. SELECT working with tuples.
31. PROJECT working with Attributes.
32. Cross product(X) is used to combine two relations.
33. Redundancy means duplication of data in database.
34. Data integrity is security from unauthorized users.
35. table is known as relation
36. Examples of RDBMS are mysql , oracle, sqlserver, ibm db2.

CHAPTER -12

1. SQL is programming language is used to access database.
2. The original version of SQL developed at IBM in 1970.

3. In 1986 ANSI published an SQL.
4. Latest SQL was released in 2008.
5. The various processing skills of SQL are DDL,DML,EBML,VIEW,AUTHORIZATION,INTEGRITY, TRANSACTION.
6. WAMP stands for Windows,Apache,Mysql,PHP.
7. Components of SQL divided in to 5 categories.
8. Types of DML procedural DML, Non procedural DML.
9. Constraint is a condition applicable on a field or set of fields.
10. condition apply only on individual column is called column constraint.
11. condition apply to one or more columns called table constraint.
12. constraint classified in to 4 types such as unique constraint,primary key constraint, default constraint,check constraint.
13. check constraint may use relational and logical operators.
- 14.DISTINCT keyword eliminates redundant data.
15. DISTINCT keyword used along with SELECT command.
16. ALL(*) keywords retains duplicate rows.
17. Sort the datas used by ORDER BY clause.
18. ORDER BY does not affect the original table.
19. GROUP BY used in aggregate functions.
20. HAVING clause used along with GROUP BY clause
21. ROLL BACK command is used to restore the database.
22. COMMIT command is used to save peramanently.
23. SAVEPOINT is used to save temporarily.
24. sorting can be done on multiple fields.

25. The logical operators are AND,OR,NOT
26. The * is used with COUNT to include NULL values.
27. MySQL is a database management system.

CHAPTER – 13

1. CSV is human readable text file.
2. CSV file is known as flat file.
3. File saved in excel cannot be opened or edited by text editors.
4. CSV file cannot store charts or graphs.
5. The expansion of CSV is Comma Separated Values.
6. CSV cannot contain formatting, macros, formulas.
7. CSV file should be save with the extension .csv.
8. By default CSV file will be opened in MS Excel.
9. Two ways to read a CSV file is reader() and Dictreader class
10. open() returns a file object is called a handle.
11. The default reading is text mode.
12. Binary mode dealing with non text files.
13. Python has a garbage collector to clean up unreferenced objects.
14. A dialect describes the format of the CSV file that is to be read.
15. Bt default skipinitialspace has a value false.
16. skipinitialspace is used for removing whitespaces after the delimiter.
17. A dialect is a class of CSV module.
18. pipe() is considered as column separator.

19. List literals are written within square brackets [].
20. The first row should be skipped by using the command next().
21. sort() is used to arrange values in ascending order.
22. To sort more than one column use itemgetter with multiple indices.
23. csv.writer works with list/tuple.
24. csv.DictReader and csv.DictWriter works with dictionary.
25. writerow() writes one row at a time.
26. to write all the data by writerows().
27. Default delimiter is comma.
28. writerow takes 1 dimensional data.
29. writerows takes 2 dimensional data(multiple rows).
30. python csv module can only accepts \r,\n as line terminator.
31. Adding a new row at the end of the file is called appending a row.

CHAPTER – 14

1. Python and c++ is general purpose language.
2. python is mostly used as scripting language.
3. Javascript,Vb,PHP,perl,python,ruby,ASP,tcl are scripting language.
4. C++ is statically typed language.
5. python deletes unwanted objects.
6. python code 5 to 10 times shorter than c++.
7. Framework for interfacing python and c++ is Boost.python.
8. The expansion of SWIG is Simplified Wrapper Interface generator.

9. The expansion of MinGW is Minimalist GNU for windows.
10. The expansion API is Application Programming Interface.
11. python contains many modules.
12. To clear the screen cls command is used.
13. The dot(.) operator is used to access the functions.
14. sys.argv is the list of command line arguments passed to the python program.
15. To use sys.argv will have to import sys.
16. OS module allows you to interface with windows operating system with python.
17. getopt module of python helps you to parse command line options.
18. getopt method consist of two arguments such as opts and args.
19. python is dynamic typed language.
20. c++ is compiler based language.

CHAPTER – 15

1. A DATABASE is organized collection of data.
2. SQLite is simple relational database system.
3. database server program such as MYSQL ,Oracle.
4. Python has native library.
5. cursor is a control structure is used to traverse and fetch the records of the database.
6. To populate(add record) the table by INSERT command.
7. cursor is used for performing all sql commands.
8. SELECT command is mostly used statement in SQL.
9. cursor.fetchall() is used to fetch all rows from the database table.

10. cursor.fetchone() is used to return next row of the query result.
11. cursor.fetchmany() returns next number of rows of the result set.
12. DISTINCT clause is used to give records without duplicate
13. ORDER BY clause is used along with SELECT to sort data.
14. HAVING clause is used to filter data based on GROUP().
15. WHERE clause can be combined with AND,OR,NOT operators.
16. Aggregate functions ignored NULL values.
17. COUNT() returns 0 if there were no matching rows.
18. cursor.description contain each column heading.
19. Path of file represented by '/' or '\\' in python
20. WHERE cannot be used with GROUPBY
21. sqlite_master is the master table which holds key information.

CHAPTER – 16

1. Data visualization is the graphical representation of data.
2. Data visualization uses statistical graphics.
3. Data visualization helps user to analyse and interpret the data.
4. An infographic is the representation of information in a graphic format.
5. A dashboard is a collection of resources.
6. matplotlib is the most popular data visualization library in python.
7. A scatter plot is a type of plot that shows the data as a collection of points.
8. The box plot is standardized way of displaying the distribution of data based on the five number.
9. There are six types of data visualization under matplotlib.
10. pip is a management software for installing python packages.

11. plt.show() is used to display graph
12. plot() is a versatile command take an arbitrary number of arguments.
13. legend() is used to invoke default legend.
14. Home button is used to return original view.
15. configure subplots allows you to configure various spacing options with your figure.
16. Save figure is used to save your figure in various forms.
17. pan axis is used to drag your graph around.
18. Zoom tool is used to click and drag a square that you would like to zoom in to specifically.
19. A line chart is a type of chart which displays information as a series of data points called markers.
20. A bar plot is one of the most common type of plot.
21. plt.bar() is used to make a bar chart.
22. A histogram represents the frequency distribution of continuous variables.
23. pie chart is a circular graph which is divided into slices to illustrate numerical proportion.
24. The points of a pie chart is to show the relationship of parts out of a whole
25. plt.pie() is used to make pie chart.
26. Bar plot shows the relationship between a numerical variable and a categorical variable.
27. Bar graph and Histogram are the two ways to display data in the form of a diagram.

GLOSSARY

1. Access control is a security technique that regulates who or what can view or use resources in a computing environment.
2. Set of atatement is called Block.
3. Cartesian product is used to merge columns from two relations.
4. cd is used to change directory.
5. class is a template of creating objects.

6. csv.QUOTE All is used to quote all fields
7. continue statement is used to skip remaining part and start with next iteration.
8. cursor.fetchall() is used to get a list of the matching rows.
9. cursor.fetchone() is used to retrieve a single matching row.
10. dict() is used to print data in dictionary format.
11. dictionary is a collection of key-value pairs.
12. import is similar to #include header file in c++.
13. Data that is mapped to a value in a dictionary is called key.
14. object is collection of data and functions.
15. duplication of data is called redundant.
16. select(σ) is used for selecting a subset of the tuples.
17. projection (π) is used to eliminates all attributes of the input relation.
18. Module is a file containing definitions and statements.
19. Queue is also called as First-In-First-Out.
20. Stack is also called as Last-In-First-Out.
21. writerow() is used to write a single row of data in a file.
22. writerows() is used to write multiple rows of data in a file.
23. Syntax is the structure of a program.
24. Logical value for TRUE is 1.
25. Logical value for FALSE is 0.
26. List does not allow the name the various part of a multi item object.
27. Boolean means Logical.
28. break statement is used to exit the control.
29. ord() is used to return Unicode point for Unicode character.
30. type() is used to return datatype of an object.

31. range() is used to return sequence of integers between start and stop.

32. capitalize() is used to convert first character to capital letter.

33. find() is used to return index value of data.

34. zip() is used to return an iterator of tuples.

35. dict() is used to create dictionary.

36. Index value 0 refers as column heading.

EXPANDED FORM FOR FOLLOWING ABBREVIATIONS.

1. ADT	-	ABSTRACT DATA TYPE
2. CDT	-	CONCRETE DAT TYPE
3. LEGB	-	LOCAL ENCLOSED GLOBAL BUILTIN
4. GUI	-	GRAPHICAL USER INTERFACE
5. IDE	-	INTEGRATED DEVELOPMENT ENVIRONMENT
6. IDLE	-	INTEGRATED DEVELOPMENT LEARNING ENVIRONMENT
7. WAMP	-	WINDOWS APACHE MYSQL PHP
8. DDL	-	DATA DEFINITION LANGUAGE
9. DML	-	DATA MANIPULATION LANGUAGE
10. TCL	-	TRANSACTION CONTROL LANGUAGE
11. DCL	-	DATA CONTROL LANGUAGE
12. DQL	-	DATA QUERY LANGUAGE
13. SQL	-	STRUCTURED QUERY LANGUAGE
14. DBA	-	DATABASE ADMINISTRQATOR.
15. DBMS	-	DATABASE MANAGEMENT SYSTEM
16. RDBMS	-	RELATIONAL DATABASE MANAGEMENT SYSTEM
17. ER	-	ENTITY RELATIONSHIP
18. ANSI	-	AMERICAN NATIONAL STANDARD INSTITUTE
19. CSV	-	COMMA SEPARATED VALUES
20. XLS	-	eXceL Sheets
21. API	-	APPLICATION PROGRAMMING INTERFACE
22. SWIG	-	SIMPLIFIED WRAPPER INTERFACE GENERATOR.
23. MinGW	-	Minimalist GNU for Windows
24. HTML	-	HYPER TEXT MARKUP LANGUAGE
25. PC	-	PERSONAL COMPUTER
26. GIS	-	GEOGRAPHIC INFORMATION SYSTEM

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