

FILES, MODULES, PACKAGES

ANNA UNIVERSITY 2 MARK QUESTIONS WITH ANSWERS

1. Write a Python script to display the current date and time.

(AU Jan 2018, R2017)

Program:

```
import datetime
now = datetime.datetime.now()
print("Current date and time using str method of datetime object:")
print(str(now))
```

Output:

Current date and time using str method of datetime object:
2018-02-14 16:34:40.27829

2. Write notes on modular design.

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- Modules are pre-written pieces of code that are used to perform common tasks like generating random numbers, performing mathematical operations, etc.
- A module is a file with .py extension that has definitions of all functions and variables that would use in other programs.
- Modules are used to break down large programs into small manageable and organized files and it provides reusability of code.
- The user can define their own, most used functions in a module and import it, instead of copying their definitions into different programs.

3. What is a file?

A file is a sequence of characters stored on a permanent medium like hard drive, flash memory or CD-ROM.

4. What is format operator?

Format operator is an operator (%), that takes a format string and a tuple as input and generates a string that includes the elements of the tuple, formatted as specified by the format string.

When applied to integers, % is the modulus operator. But when the first operand is a string, % is the format operator.

5. What is command Line argument?

Python provides a getopt module that helps to parse command-line options and arguments.

```
$ python test.py arg1 arg2 arg3
```

6. What is modules?

Modules are a file containing Python statements and definitions.

7. What are packages?

A package is just a way of collecting related modules together within a single tree like hierarchy. A well organized hierarchy of directories for easier access. Python has packages for directories and modules for files.

8. What are exceptions?

Errors can also occur at runtime and these are called exceptions.

Example:

A file trying to open does not exist (FileNotFoundError), dividing a number by Zero (ZeroDivisionError), module trying to import a module and is not found (ImportError) etc, are exceptions.

ANNA UNIVERSITY 16 MARK QUESTIONS WITH ANSWERS

1. Tabulate the different modes for opening a file and explain the same. (16)

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2. Appraise the use of try block and except block in Python with syntax. (6)
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3. Explain with an example exceptions with arguments in Python (10)

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4. What is a file? Explain the operations performed on a file.

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5. What is exception? How they are handled in python.

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6. Explain the following.

- a) Modules.
- b) Packages.

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