

41524/E240

Reg. No.

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V Semester B.C.A. Degree Examination, March/April - 2021

PROGRAMMING WITH PYTHON

Regular/Repeaters

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates :

1. All sections are compulsory.
2. Give examples and syntax wherever necessary.

SECTION - A

Answer the following questions.

(10×2=20)

1. a) Define python.
b) Name Data types in python with examples.
c) Define List and dictionaries with example.
d) Mention the task of Software Quality Assurance group.
e) What are Assertions.
f) Define Testing. Mention types of testing.
g) What is Regular Expression?
h) Name any two Tkinter widgets with example.
i) What is Cursor?
j) Define commit and rollback.

SECTION - B

Answer any **four** of the following questions.

(4×5=20)

2. Explain any five python features.
3. Explain any five string methods with an example.
4. What is Exception handling? Write a python Program to demonstrate exception handling.
5. Explain any five Meta characters with respective regular expressions in python.
6. Write steps for database connectivity in Python.

[P.T.O.]

**SECTION - C**

Answer any **four** of the following questions.

(4×10=40)

7. a) Explain if and if else statements in python with example.
b) What is recursion? Write a python program to calculate factorial of a given no using recursion.
 8. What is Tuple? Explain any 5 built in sunction of tuple with example.
 9. Explain the terms with respective python
 - a. Object and class
 - b. Inheritance
 - c. Encapsulation
 - d. Information Hiding.
 10. Explain any 5 python widgets related to GUI.
 11. Write a python program to insert and display the Employee details in the database. (Empid, empname, empaddress).
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41521/E210

Reg. No.

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V Semester B.C.A. 4 Degree Examination, March/April - 2021

SOFTWARE ENGINEERING

(Regular/Repeaters)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer all Sections.
2. Draw neat diagram wherever necessary.
3. Give examples wherever needed.

SECTION - A

1. Answer the following questions.

(10×2=20)

- a) Mention any two key challenges of Software.
- b) Define requirements engineering. Name any two requirements.
- c) Define MYTH. Name any two types of myth.
- d) Define requirement validation.
- e) Mention uses of Use-Case diagram.
- f) Define mapping. State any one use of it?
- g) Define UML.
- h) Define debugging.
- i) Define RMMM.
- j) Define Software Quality.

SECTION - B

Answer FOUR questions.

(4×5=20)

2. Explain Software Engineering layers with neat diagram.
3. Explain user requirements in detail with examples.
4. Explain the steps to conduct component level design.
5. Explain Function based metrics with example.
6. Explain Six Sigma method of Software Engineering.

P.T.O.



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SECTION - C

Answer any FOUR questions.

(4×10=40)

7. Explain BOEHM Spiral Model with neat diagram? State its advantages and disadvantages.
 8. a) Explain Context Model of ATM System. **(5)**
b) Explain data-flow model of insulin pump. **(5)**
(5+5=10)
 9. a) Explain Golden rules. **(5)**
b) Explain design evaluation. **(5)**
(5+5=10)
 10. Define Integration testing. Explain types of Integration testing.
 11. a) Explain Formal Technical reviews. **(5)**
b) Explain risk identification with example. **(5)**
(5+5=10)
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