

**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME**  
**BCA FOURTH SEMESTER DEGREE EXAMINATION MAY/JUNE 2023**  
**COMPUTER APPLICATIONS**  
**Python Programming**

**Duration:2 Hours****Max Marks:60**

**PART A**

**Answer any FIVE questions:****(5×2= 10)**

- 1) Compare Python with other programming languages.
- 2) What is Python shell?
- 3) Why is Update() method used in Python dictionary?
- 4) What is python tuple index() method ?
- 5) Write the statement to connect to mysql database.
- 6) How do you display the current date?

**PART B**

**Answer any FIVE questions :****(5×6= 30)**

- 7) Mention the membership operators in python.
- 8) What is lower() method in strings?
- 9) Explain Multiple Inheritance in Python.
- 10) Define how to remove an item from a set.
- 11) List the seed() method to generate random number in Python.
- 12) How do you specify a range of indexes in lists?

**PART C**

**Answer any TWO questions :****(2×10= 20)**

- 13) a) Write a note on Frozen Binaries. b) Explain Garbage collection in Python.
- 14) Explain with example difference between a normal def defined function and lambda function.
- 15) Explain with example updating rows from a table through python.

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**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME  
BCA FOURTH SEMESTER DEGREE EXAMINATION MAY/JUNE 2023**

**COMPUTER APPLICATIONS  
Computer Multimedia and Animation**

**Duration:2 Hours**

**Max Marks:60**

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**PART A**

**Answer any FIVE questions:**

**(5×2= 10)**

- 1) What is the purpose of i) div ii) figcaption tags?
- 2) How do you add multimedia elements to HTML page?
- 3) What is the usage of colgroup tag? Give an example.
- 4) List the datatypes in JavaScript. Give examples for each.
- 5) What is the purpose of fillStyle() method? Give an example.
- 6) Give an example for darker and copy values of globalCompositeOperation property in HTML Canvas.

**PART B**

**Answer any FIVE questions :**

**(5×6= 30)**

- 7) How do you add radiobutton, checkbox and dropdownlist to an HTML page?  
Explain with an example each.
- 8) Explain CSS font properties with an example each.
- 9) Explain any six CSS Animation properties with examples.
- 10) How do you draw bezier curves in HTML Canvas? Explain with methods and an example.
- 11) How do you create radial gradient in HTML Canvas? Explain with methods and examples.
- 12) Write a note on HTML Canvas scaling.

### PART C

Answer any TWO questions :

(2×10= 20)

13. a) Explain internal and external stylesheets with an example each.  
b) Explain any two CSS background properties with examples.
14. Explain Arithmetic and Bitwise operators in JavaScript with an example each.
15. Explain with examples  
a) getContext() b) strokeRect() c) moveTo() d) closePath() e) fill()  
methods in HTML Canvas.

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**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME**  
**BCA FOURTH SEMESTER DEGREE EXAMINATION MAY/JUNE 2023**  
**COMPUTER APPLICATIONS**  
**Operating System Concepts**

Duration:2 Hours

Max Marks:60

**PART A**

Answer any FIVE questions:

(5×2= 10)

- 1) Write any two responsibilities of an operating system with respect to Main-Memory management.
- 2) Define dispatcher. Mention any two functions of a dispatcher.
- 3) Write and define the two general approaches used to handle critical sections in operating systems
- 4) What is an absolute path name?
- 5) Differentiate program and process.
- 6) What is fragmentation?

**PART B**

Answer any FIVE questions :

(5×6= 30)

- 7) Explain internal and external fragmentation with a help of an example.
- 8) Write a note on a) Virtual memory b) Demand paging
- 9) Explain the structure of philosopher i in the dining-philosophers problem.
- 10) Write a note on free space management.
- 11) Explain the methods to detect deadlocks in the system.
- 12) Write a note on internal file structure.

**PART C**

Answer any TWO questions :

(2×10= 20)

- 13) a) Explain page replacement with a neat diagram.  
b) Explain equal and proportional allocation of frames.
- 14) Explain various multithreading models with a neat diagram.
- 15) Explain deadlock characterization.

**CHOICE BASED CREDIT SYSTEM**  
**BCA FOURTH SEMESTER DEGREE EXAMINATION MAY/JUNE 2023**  
**COMPUTER APPLICATIONS**  
**Software Engineering**

**Duration:3 Hours****Max Marks:80****I. Answer any FIVE of the following :****(5×2= 10 Marks)**

1. Mention any two advantages of Prototyping model.
2. Define KLOC.
3. What is the need for a good quality SRS?
4. Define Coupling.
5. What is meant by single-entry and single-exit in structured programming?
6. What do you mean by test oracles?

**II. Answer any FIVE of the following :****(5×6= 30 Marks)**

7. Explain various phases of the software development process.
8. Explain MAI and MAO in detail.
9. Explain Data flow based criteria to software testing.
10. Write the roles and responsibilities of : a) Moderator b) Reviewer
11. What is the purpose of critical design review? Explain.
12. Explain the various levels of Capability Maturity Model with a neat diagram.

**III. Answer any FOUR of the following :****(4×10= 40 Marks)**

13. a) Explain the waterfall model.  
b) What do you understand by predictability of a software process? Explain.
14. List and explain the characteristics of an SRS.
15. Write a note on: a) Boundary Value Analysis b) Pair-wise testing
16. Write a note on: a) PDL b) Stepwise Refinement
17. Write a note on: a) Coding standards b) Information Hiding

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