



B.C.A. IV Semester Degree Examination, Sept./Oct. - 2024

COMPUTER SCIENCE

DSC 10 : Python Programming

(NEP)

Time : 2 Hours

Maximum Marks : 60

SECTION - A

I. Answer all the questions, each question carries one mark. 10x1=10

1. (a) Who developed python programming ?
- (b) Which symbol is used to represent comments in python programming ?
- (c) What do you mean by function in python ?
- (d) Define string slicing in python.
- (e) What is Dictionary ?
- (f) Define Tuple.
- (g) What is polymorphism ?
- (h) Define File.
- (i) Why tkinter module is used in python GUI ?
- (j) What do you mean by data visualisation in python ?

SECTION - B

II. Answer any four of the following questions, each question carries five marks. 4x5=20

2. Explain while loop statement with Syntax and example.
3. Explain any three string methods in python.
4. What is list ? Explain different built in functions of lists.
5. Explain creating class and objects in python with syntax and example.
6. Write a short note on Pandas.
7. Write a python program to implement stack.



SECTION - C

III. Answer **any three** of the following questions, each question carries **ten** marks.

3x10=30

- 8.** Explain features of python.
- 9.** What is an error ? Explain exception handling using try, except and finally in python.
- 10.** What is sets in Python ? Explain different set methods with example.
- 11.** What is inheritance ? Explain different types of inheritance with suitable example.
- 12.** Explain the following operations on table using SQLite.
 - (a) create
 - (b) insert
 - (c) delete

- o o o -





B.C.A. IV Semester Degree Examination, Sept./Oct. - 2024

COMPUTER SCIENCE

DSC-11 : Computer Multimedia and Animation

(NEP)

Time : 2 Hours

Maximum Marks : 60

SECTION - A

Answer the following sub-questions, each sub-question carries **one** mark. **10x1=10**

1. (a) Write any two features of HTML5.
- (b) Write the syntax of <a> tag.
- (c) What is Interpolation ?
- (d) Write any two CSS animation Property.
- (e) What is SVG Gradients ?
- (f) Write SVG Circle Attributes.
- (g) Define Canvas.
- (h) Write any two methods available in 2D rendering context.
- (i) Write any two text properties in Canvas.
- (j) What is HTML5 Canvas Rotation ?

SECTION - B

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

4x5=20

2. Explain <Table> tag and its attributes.
3. What is CSS Animation ? Explain How to set animation property ?
4. Explain Start and End states in Animation.
5. Write HTML5 program to demonstrate SVG : Circle and Rectangle.
6. With an example explain Canvas drawing path properties.
7. Write a short note on Canvas Animation.



SECTION - C

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

3x10=30

8. What is CSS selectors ? Explain any 3 types of Selectors with examples.
9. How CSS Transition is implemented in HTML5 ? Explain with an example.
10. Write HTML5 program to demonstrate SVG : Linear and Radial Gradients.
11. Explain Canvas drawing Bezier and Quadratic Curves with example.
12. Explain in detail Canvas Transforms with an example.

- o O o -





B.C.A. IV Semester Degree Examination, Sept./Oct. - 2024

COMPUTER SCIENCE

DSC 12 : Operating System Concepts

(NEP)

Time : 2 Hours

Maximum Marks : 60

SECTION - A

I. Answer **all** the questions, each question carries **one** mark.

10x1=10

1. (a) What is operating system ?
(b) Define process.
(c) Mention types of thread.
(d) What is Non-preemptive scheduling ?
(e) What is process synchronization ?
(f) Define deadlock.
(g) Define logical address.
(h) What is fragmentation ?
(i) Define file.
(j) Mention any two file operations.

SECTION - B

II. Answer **any four** of the following. Each question carries **five** marks.

4x5=20

2. Write the services of operating system.
3. Write a note on multithreading models.
4. Explain critical section problem.
5. Write a short note on swapping in OS.
6. Describe the attributes of file.
7. Write a note on scheduler's.



P.T.O.

SECTION - C

III. Answer **any three** of the following. Each question carries **ten** marks. **3x10=30**

8. With a neat diagram, explain process life cycle.
9. Calculate the average waiting time and average turn around time of the following and draw the Gantt chart using SJF scheduling. Where all processes arrived at time 0(zero).

Process	Burst time
P1	6
P2	8
P3	7
P4	3

10. Explain any two methods for handling deadlock.
11. Explain FIFO page replacement algorithm with an example.
12. Explain File Access Methods.

- o 0 o -

