



K22U 2252

Reg. No. :

Name :

**V Semester B.C.A. Degree (CBCSS – OBE-Regular/Supplementary/
Improvement) Examination, November 2022
(2019 Admission Onwards)
Core Course
5B14BCA : PYTHON PROGRAMMING**

Time : 3 Hours

Max. Marks : 40

PART – A

(Short answer)

Answer **all** questions.

(6×1=6)

1. What is commit operation ?
2. Which is the difference between Mutable and Immutable objects ?
3. What are the different numerical types supported by Python ?
4. List out Basic operations on Arrays.
5. What is PYTHONPATH variable ?
6. Which method is used to disconnect a database ?

PART – B

(Short essay)

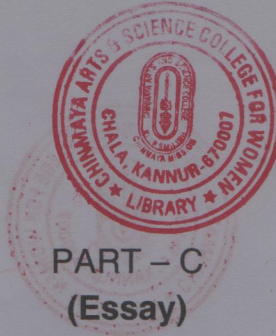
Answer **any 6** questions.

(6×2=12)

7. How do you plot the mathematical function $\sin x$?
8. What is NumPy Arrays ?
9. List out some Data type conversion functions.
10. How do you create class in Python ?
11. What are Built-in Methods of List ?
12. What are the arithmetic operations on Arrays ?
13. What is Cursor object ?
14. What is Data Visualization in Python ?

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PART - C
(Essay)

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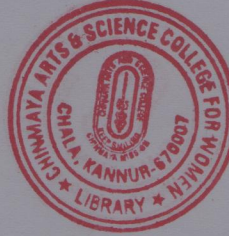
Answer **any 4** questions. **(4×3=12)**

15. Briefly explain features of Python.
16. What are Layout Managers in Python GUI ?
17. Differentiate Global variables and Local variables with suitable example.
18. Which are Assignment Operators ?
19. What are the built-in functions to read data from standard input ?
20. What are Database exceptions ?

PART - D
(Long essay)

Answer **any 2** questions. **(2×5=10)**

21. Describe Class Inheritance.
22. How do you fetch data from a Database ?
23. Describe standard exceptions in Python.
24. What is Tkinter ? List out Tkinter Widgets.



K22U 2251

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V Semester B.C.A. Degree (CBCSS-OBE-Regular/Supplementary/
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(2019 Admission Onwards)

Core Course

5B13BCA : ENTERPRISE JAVA PROGRAMMING

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** the questions :

(6×1=6)

1. What is meta data ?
2. What is SQL warning ?
3. What is RMI registry ?
4. Why are cookies created ?
5. What is holder class ?
6. What is client stub ?

SECTION – B

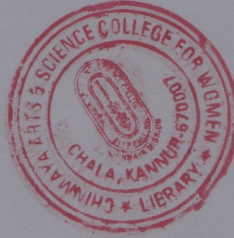
Write short notes on **any six** of the following questions :

(6×2=12)

7. List JDBC data types.
8. Briefly explain the working of DGC.
9. What is servlet ? Explain its types.
10. Explain the methods to insert current, date and time in a database using JDBC.
11. What is marshalling and unmarshalling ?

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12. What is IDL Compiler ?

13. How is ORB initialized ?

14. What are initialization parameters in servlets ?

SECTION – C

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

(4×3=12)

15. What are the types of ResultSet in JDBC ?

16. What are ServletConfig and ServletContext ?

17. How are stubs and skeletons generated ? Explain.

18. How do inter-ORB communication works ?

19. Explain how to register with a naming service.

20. What are CORBA remote object references ?

SECTION – D

Write an essay on **any two** of the following questions :

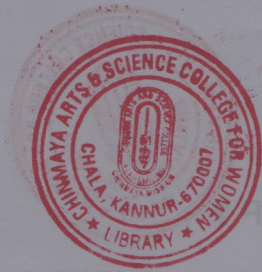
(2×5=10)

21. What is JDBC ? Explain the architecture of JDBC with the help of a diagram.

22. Explain the life cycle of java servlets.

23. What are RMI architecture layers ? Explain in detail.

24. What is CORBA ? Explain its architecture.



K22U 2253

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**V Semester B.C.A. Degree (CBCSS – OBE-Regular/Supplementary/
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(2019 Admission Onwards)
Core Course
5B15BCA : WEB TECHNOLOGY**

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** questions. **(6×1=6)**

1. What is a web browser ?
2. The _____ attribute allows you to specify a background color for the whole document.
3. Explain the syntax of ordered list.
4. Differentiate Write and Writeln methods in Javascript.
5. What is the use of Strcmp() in PHP ?
6. What is DDL statements ?

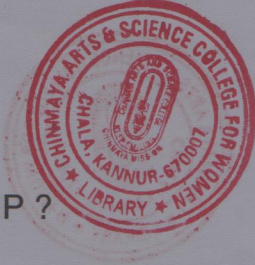
SECTION – B

Write short note on **any six** of the following questions. **(6×2=12)**

7. What is the use of inline frame ?
8. Explain ordered and unordered lists in HTML.
9. What are the logical operators in Javascript ?

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10. Explain about arrays in PHP.

11. How to create a function in PHP ?

12. What is class ? How to create a class in PHP ?

13. What is the use of mysql_fetch_array function ?

14. What is the use of font tag ?

SECTION - C

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

(4×3=12)

15. Describe frameset and frames in HTML.

16. Write the branching and conditional statements in PHP.

17. What is static and dynamic web documents ?

18. Write a note on Window object in Javascript.

19. How to connect mysqlDatabase using PHP ?

20. What is client server model ?

SECTION - D

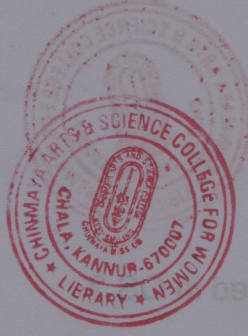
Write an essay on **any two** of the following questions. (2×5=10)

21. Describe various form elements of HTML.

22. Explain text formatting elements in HTML.

23. Explain the any 5 array functions in PHP.

24. Explain any five event handling functions in Javascript.



K22U 2250

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**V Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/
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(2019 Admission Onwards)
Core Course
5B12BCA – OPERATING SYSTEMS**

Time : 3 Hours

Max. Marks : 40

**SECTION – A
(Short Answer)**

Answer **all** questions.

(6×1=6)

1. What is an operating system ?
2. Differentiate between virus and worm.
3. What is meant by IPC ?
4. Explain fragmentation in memory management.
5. What is meant by paging ?
6. What is buffering ? Why it is used ?

**SECTION – B
(Short Essay)**

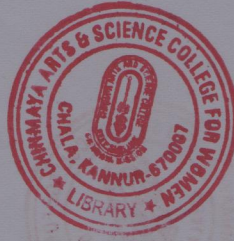
Answer **any 6** questions.

(6×2=12)

7. Briefly explain any four system calls with example.
8. What are the methods for handling deadlock ?
9. What is thrashing ?
10. Why virtual memory is used ?

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K22U 2250



11. Explain demand paging.
12. How I/O protection implemented in OS ?
13. Write a note on disk management in OS.
14. What is meant by free space management ?

SECTION - C
(Essay)

Answer **any 4** questions.

(4×3=12)

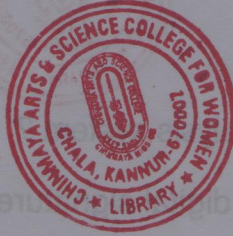
15. Briefly explain the structure of an operating system.
16. What are different process states in operating system ?
17. What is meant by contiguous memory allocation ?
18. What is LRU ? Explain with example.
19. Write a note on file sharing and protection.
20. What are the applications of an I/O interface ?

SECTION - D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Explain the functions of an operating system in detail.
22. What are preemptive and non preemptive scheduling algorithms ? Explain with examples.
23. Write a note on deadlock, deadlock avoidance and deadlock prevention.
24. What is segmentation ? Write a note on it.



K22U 2254

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**V Semester B.C.A. Degree (CBCSS-OBE-Regular/Supplementary/
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(2019 Admission Onwards)
Core Course
5B16BCA – E01 INFORMATION SECURITY**

Time : 3 Hours

Max. Marks : 40

**PART – A
Short Answer**

Answer **all** questions :

(6×1=6)

1. What do you mean by confidentiality ?
2. What do you mean by substitution cipher ?
3. What do you mean by cryptanalysis ?
4. List out any two private key algorithms.
5. What are the principles of a public key cryptographic algorithm ?
6. What do you mean by message authentication ?

**PART – B
Short Essay**

Answer **any 6** questions :

(6×2=12)

7. List out the needs for information security.
8. What is a symmetric key ?
9. List out some weaknesses of DES algorithm.
10. What are the criteria that a cryptographic hash function must satisfy ?

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11. What do you mean by cryptanalysis system ?

12. What are the benefits of RSA digital signature ?

13. What is steganography ?

14. What are the features of Trojan horse ?

PART - C

Essay

Answer **any 4** questions :

(4×3=12)

15. Briefly explain various principles of security.

16. What are various categories of traditional ciphers ?

17. Explain brute force attack.

18. Differentiate public key and private key cryptographic systems.

19. What do you mean by message digest ?

20. Explain Kirchoff's principle of cryptography.

PART - D

Long Essay

Answer **any 2** questions :

(2×5=10)

21. Describe various types of security attacks.

22. Explain DES algorithm in detail.

23. Describe RSA algorithm.

24. Compare various digital signature schemes.