K21U 4671

Reg. No. : .....

Name : .....

V Semester B.C.A. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admn. Only)
Core Course
5B12BCA : OPERATING SYSTEMS

Time : 3 Hours Max. Marks : 40

PART – A

(Short Answer)

Answer **all** questions. **(6×1=6)**

1. Define operating system.
2. Expand PCB.
3. What is the technique used to support copy semantics for application I/O ? buffering.
4. List any two file attributes.
5. _____ is a mechanism that provides the inference between a process and the operating system.
6. Define external fragmentation.

PART – B

(Short Essay)

Answer **any 6** questions. **(6×2=12)**

7. Write short note on command interpreter.
8. Explain process states with neat diagram.
9. Write short note on contiguous memory algorithm.
10. Explain the Look Disk Scheduling algorithm.

P.T.O.

11. Explain about virtual memory.
12. Define maskable and non maskable interrupt.
13. Write short note on DMA.
14. Define spool. Explain spooling.

PART – C

(Essay)

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

15. Explain the fundamental approaches for users to interface with operating system.
16. Explain FCFS and SJF scheduling with example.
17. Write note on segmentation.
18. Explain about file operations.
19. Write note on Inter Process Communication (IPC).
20. Explain the steps in DMA transfer with diagram.

PART – D

(Long Essay)

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

21. Explain in detail about the functions of operating system.
22. Define Deadlock. Explain Bankers Algorithm for deadlock avoidance.
23. Explain any three page replacement methods with example.
24. Explain in detail about file allocation methods.

K21U 4672

Reg. No. : .....

Name : .....

V Semester B.C.A. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admn. Only)
Core Course
5B13BCA : ENTERPRISE JAVA PROGRAMMING

Time : 3 Hours Max. Marks : 40

SECTION – A
(Very Short Answer)

Answer **all** the questions : **(6×1=6)**

1. What is the use of JDBC-ODBC bridge driver ?
2. What is RMI ?
3. List some advantages of using servlets.
4. Which is used to generate RMI stub and skeleton classes ?
5. Mention any one function of inter-ORB protocol.
6. Why is IDL used ?

SECTION – B
(Short Answer)

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

7. Explain briefly about activation groups in RMI and its functions.
8. Explain briefly about servlet life cycle.
9. What is request dispatching in the context of servlets ?
10. How can you create a Cookie ?
11. What is connection pooling and what is its advantage ?
12. Which are the large data types, explain.
13. What is SQL warning and its difference with SQL exceptions ?
14. How can a server process export some RMI-based service to its clients ?

P.T.O.

SECTION – C
(Essay)

Answer **any four** of the following questions : **(4×3=12)**

15. Explain about POST and GET http requests and state the difference between them.
16. How is session tracking performed in servlets ?
17. What are the three types of statements used in JDBC, explain each briefly.
18. Explain about holder class in CORBA with an example.
19. Explain in detail about two classes provided by JDBC for dealing with metadata.
20. Discuss about a simple server class with an example.

SECTION – D
(Long Essay)

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

21. Explain in detail about JDBC architecture with a neat diagram.
22. Discuss about the various RMI object services in detail.
23. Elaborate on the various program constructs in IDL (CORBA).
24. Explain about Http Servlets with the help of an example program.

K21U 4673

Reg. No. : .....

Name : .....

V Semester B.C.A. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admn. Only)
Core Course
5B14BCA : PYTHON PROGRAMMING

Time : 3 Hours

Max. Marks : 40

PART – A
(Short Answer)

Answer **all** questions.

1. Write an output function of Python.
2. What is function definition ?
3. Define an object.
4. What are built in attribute methods ?
5. Expand GUI.
6. Give an example for amutable datatype. **(6×1=6)**

PART – B
(Short Essay)

Answer **any six** questions.

7. What is the use of range function ?
8. How to plot x^2 in python ?
9. Write the syntax to delete records from a database.
10. What is exception handling ?

P.T.O.

11. Write a Python function to find the largest of two numbers.

12. Explain recursion with an example.

13. What is meant by transaction control in databases ?

14. How can you insert records to a database/table ? **(6×2=12)**

PART – C
(Essay)

Answer **any four** questions.

15. Explain how to connect to a database.

16. Explain numpy module.

17. Explain any three features of Python.

18. How can you fetch records from databases ?

19. Explain any three Layout managers.

20. What is a canvas ? Demonstrate with an example. **(4×3=12)**

PART – D
(Long Essay)

Answer **any two** questions.

21. Explain any five methods of List data type.

22. How are files handled in Python ?

23. Explain two ways of creating arrays in Python with examples.

24. Explain Radio Button widget with example program. **(2×5=10)**

K21U 4674

Reg. No. : .....

Name : .....

V Semester B.C.A. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admn. Only)
Core Course
5B15BCA : WEB TECHNOLOGY

Time : 3 Hours Max. Marks : 40

PART – A
(Short Answer)

Answer **all** questions. **(6×1=6)**

1. How will you fetch images to a web page in HTML ?
2. What is purpose of GET method ?
3. Which dialog box in JavaScript is used to give warning to users ?
4. The tag used for creating a horizontal line is
5. Define HTTP.
6. What does PHP stand for ?

PART – B
(Short Essay)

Answer **any 6** questions : **(6×2=12)**

7. Write a brief note on Internet.
8. Write down the difference between <title> tag and <head> tag.
9. Briefly explain table tags.
10. What is inline frame ?

P.T.O.

11. How to declare variables in JavaScript ? Explain with example.
12. Briefly explain math object in JavaScript.
13. Explain for and while control statements in PHP.
14. Briefly explain client-server model.

PART – C
(Essay)

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

15. What are the heading tags used in HTML ? Give examples.
16. Explain physical style tags of HTML.
17. Briefly explain frames in HTML.
18. What are the event handlers in JavaScript ?
19. Explain data types of PHP.
20. What is database and how to access database using PHP ?

PART – D
(Long Essay)

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

21. Explain unordered lists, ordered lists with example.
22. How to create a table in HTML ? Explain.
23. Explain different dialog boxes in JavaScript.
24. Write down the operators used in PHP.

———————

K21U 4675

Reg. No. : .....

Name : .....

V Semester B.C.A. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admn. Only)
Core Course
5B16BCA-E01 – INFORMATION SECURITY

Time : 3 Hours Max. Marks : 40

PART – A

Short Answer

Answer **all** questions : **(6×1=6)**

1. List the goals of Information security.
2. Define Cryptography.
3. A cryptanalyst may use _____ attack to break the cipher.
4. DES is a block cipher. State True or False.
5. Expand RSA.
6. Name any two attacks on RSA signature.

PART – B

Short Essay

Answer **any 6** questions : **(6×2=12)**

7. Differentiate Active and Passive attacks.
8. Explain about Known plain text attack with neat sketch.
9. Write short note on encryption and decryption with DES.
10. Mention some weaknesses found in the cipher design of DES.

P.T.O.

11. What is the principle of public key cryptosystems ?

12. What are the applications of key cryptosystems ?

13. Explain about adding confidentiality to a digital signature.

14. Define forgery. Explain its types.

PART – C

Essay

Answer **any four** questions : **(4×3=12)**

15. Write short note on Principles of Security.

16. Explain about polyalphabetic ciphers with example.

17. Explain about the key generation in DES with diagram.

18. Write and explain the RSA algorithm.

19. Explain the differences between the conventional signature and digital signature.

20. Write note on public key cryptosystems.

PART – D

Long Essay

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

21. Explain in detail about the attacks threatening confidentiality, integrity and availability.

22. Explain in detail about the classifications of transposition ciphers with example.

23. Explain about Multiple Data Encryption Standard (Multiple DES).

24. Explain in detail about RSA digital signature scheme.
