



J23/222/TDC/ODD/SEM/BCASEC-301T/020

TDC (CBCS) Odd Semester Exam., 2022

**COMPUTER APPLICATION
(3rd Semester)**

Course No. : BCASEC-301T

(Open Source Software)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *three* of the following : $1 \times 3 = 3$

(a) What is open-source software?

(b) What are the disadvantages of open-source software?

(c) What do you mean by licencing of OSS?

(d) Mention two applications of OSS.



(2)

2. Answer any one of the following questions : 2
- (a) What are different open-source softwares that are utilised for higher order calculations of mathematics?
 - (b) Write down the purposes of the following OSS :
 - (i) R software
 - (ii) Simfy

3. Answer any one of the following questions : 5
- (a) Explain the origin of free open-source software.
 - (b) Elucidate the meaning and extraction of the terms free software and open-source software.

UNIT—II

4. Answer any three of the following questions : 1×3=3
- (a) What is Linux kernel?
 - (b) What is vi editor?
 - (c) Which process is first loaded into memory when the Linux system is booted?
 - (d) Write down the purpose of fork().

(3)

5. Answer any one of the following questions : 2
- (a) Write short note on modes of operation.
 - (b) Write down the functions of Linux operating system.
6. Answer any one of the following questions : 5
- (a) Explain different states of a process in Linux operating system.
 - (b) What is a signal? Explain various signals available in Linux. 1+4=5

UNIT—III

7. Answer any three of the following questions : 1×3=3
- (a) What is AOSP?
 - (b) What are Android libraries?
 - (c) What is the current version of Android?
 - (d) What is ADT plugin?
8. Answer any one of the following questions : 2
- (a) Write down the characteristics of DVM.
 - (b) How to execute the Android app on the emulator?



(4)

9. Answer any one of the following questions : 5

- (a) Explain file system hierarchy of Android OS.
- (b) Describe how to build Android application package (apk) file.

UNIT—IV

10. Answer any three of the following questions : 1×3=3

- (a) What is XAMPP?
- (b) Write down the basic syntax for PHP.
- (c) What is identifier in PHP?
- (d) How are constants used in PHP?

11. Answer any one of the following questions : 2

- (a) How to embed PHP code in HTML? Give example.
- (b) Explain different types of variables with example.

12. Answer any one of the following questions : 5

- (a) Write a PHP script for printing factorial and output to be displayed on browser.
- (b) Define data type. Explain different data types used in PHP.

(5)

UNIT—V

13. Answer any three of the following questions : 1×3=3

- (a) Define OGSA.
- (b) Mention two services of OGSA.
- (c) What is GT4 architecture?
- (d) What is WSRF?

14. Answer any one of the following questions : 2

- (a) Write down the characteristics of cloud.
- (b) Write down the purpose of storage controller in Eucalyptus components.

15. Answer any one of the following questions : 5

- (a) Explain security issues in grid computing.
- (b) Explain key features of OpenNebula.
