



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – Dip.CSE-2023

Course Name – FOSS (Free and Open Source Software)

Course Code - DCSE-PE601A

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify the correct definition of Open Source Software.
 - a) Software with hidden source code
 - b) Software available only for free
 - c) Software whose source code is openly available
 - d) Software used only in companies
- (ii) Choose the main purpose of Open Source Software.
 - a) Profit maximization
 - b) Source code secrecy
 - c) Collaboration and transparency
 - d) Hardware dependency
- (iii) Select the essential requirement of open source software.
 - a) Paid license
 - b) Closed modification
 - c) Source code availability
 - d) Vendor lock-in
- (iv) Select the main difference between free software and open source software.
 - a) Price difference
 - b) User freedom emphasis
 - c) Hardware requirement
 - d) File size
- (v) Identify the number of freedoms defined by free software foundation.
 - a) 2
 - b) 3
 - c) 4
 - d) 5
- (vi) Choose Freedom 0 of software.
 - a) Modify the program
 - b) Redistribute copies
 - c) Run the program for any purpose
 - d) Study source code
- (vii) Select the correct meaning of "fork" in FOSS.
 - a) Software error
 - b) Independent development branch
 - c) Virus attack
 - d) Software backup
- (viii) Identify why forks are created in open source projects.
 - a) To stop development
 - b) Due to disagreement or new ideas
 - c) To increase cost
 - d) To close source code

- (ix) Choose a popular open source web browser.
- | | |
|------------|-----------|
| a) Chrome | b) Safari |
| c) Firefox | d) Edge |
- (x) Identify which organization promotes free software philosophy.
- | | |
|--------------|-----------------------------|
| a) Microsoft | b) Free Software Foundation |
| c) Apple | d) Oracle |
- (xi) Choose the key benefit of FOSS.
- | | |
|----------------------|-------------------|
| a) Vendor dependency | b) High cost |
| c) Community support | d) Limited access |
- (xii) Select the correct statement about FOSS security.
- | | |
|-----------------------|------------------------------------|
| a) Less secure always | b) More secure due to transparency |
| c) Never updated | d) Illegal to use |
- (xiii) Identify the license type commonly used in FOSS.
- | | |
|----------------|--------------|
| a) Proprietary | b) GPL |
| c) Trial | d) Shareware |
- (xiv) Choose what users can do with open source software.
- | | |
|------------------------------|------------------|
| a) Only run | b) Only view |
| c) Run, study, modify, share | d) Only purchase |
- (xv) Select the correct meaning of "source code".
- | | |
|--------------------|---------------------------|
| a) Executable file | b) Human-readable program |
| c) Encrypted data | d) Hardware design |

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Discuss LibreOffice's role in promoting open document standards. (5)
3. Discuss the fundamental rules and characteristics that define open-source software. (3)
4. Explain FOSS case studies like LibreOffice and Samba illustrate open-source principles. (3)
5. State the importance of the four freedoms in FOSS. (3)
6. Explain community governance in the LibreOffice project. (3)

OR

- Discuss enterprise adoption of Samba in mixed OS networks. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the features and advantages of using ArgoUML or equivalent open-source design tools. (5)
8. Discuss the working of Git with respect to repositories, branches, and commits. (5)
9. Describe the life cycle of a bug in a bug tracking system. (5)
10. Describe boot-time kernel options and explain their significance in Linux system startup. (5)
11. Describe the installation and administration of Moodle as a Learning Management System. (5)
12. Analyze the overall impact of FOSS on education, industry, and society. (5)

OR

- Explain the restore process in Linux and its importance in system recovery. (5)
