

1. All questions are **compulsory**.
2. All questions carry **equal marks**.
3. Draw **neat, labelled diagrams** wherever necessary

Q.1 Attempt the following (Any Four)

[20 Marks]

- a. What are the principles of open-source software?
- b. Explain the concept of "Free doesn't mean no cost".
- c. List and explain problems of commercial software.
- d. Explain the history of open source.
- e. Explain the zero marginal cost to FOSS.
- f. Explain the following terms:
 - i. Trademark
 - ii. Copyleft

Q.2 Attempt the following (Any Four)

[20 Marks]

- a. Write short note on Open-Source Design.
- b. What is Wikipedia?
- c. Give the fundamental benefits of GitHub.
- d. What considerations should be made when choosing an open-source license?
- e. What ethical considerations should be followed while using open source technology?
- f. Write short note on:
 - i. Shared software.
 - ii. Shared source.

Q.3 Attempt the following (Any Four)

[20 Marks]

- a. Explain the features Of the Android Operating system.
- b. Discuss containerization technology for IDE.
- c. Write a note on the following:
 - i. WordPress
 - ii. Drupal
- d. Discuss virtualization along with its types.
- e. Describe in brief LAMP.
- f. Write a note on GCC.

Q.4 Attempt the following (Any Five)

[15 Marks]

- a. Give different versions of the kernel.
- b. Write short on Patent.
- c. Give features of free BSD.
- d. Write short note on Free Software Foundation.
- e. Give the Ethics of Open Source.
- f. What is Debugger?
