

(2 ½ Hours)

[Total Marks: 75]

- N.B.
- 1) All questions are compulsory.
 - 2) Figures to the right indicate marks.
 - 3) Illustrations, in-depth answers and diagrams will be appreciated.
 - 4) Mixing of sub-questions is not allowed.

Q. 1 Attempt All (Each of 5Marks)

(15M)

(a) Multiple Choice Questions

- i. FLOSS stands for _____
 - a. Free Libre Open Source Software
 - b. Free Least Open Source Software
 - c. Fixed Libre Open Source Software
 - d. Freedom Level Open Source Software)
- ii. OSI stands for _____
 - a. open system interchange
 - b. open source initiative
 - c. open source interchange
 - d. open system interconnection)
- iii. LGPL stands for _____
 - a. Library General Public License
 - b. Lesser General Public License
 - c. Level General Public License
 - d. Linking General Public License
- iv. Most commercial software programs enjoy a form of intellectual property protection called _____
 - a. Copyright
 - b. Patent
 - c. Copyleft
 - d. Trademark
- v. _____ is an example of closed source software.
 - a. Python
 - b. Joomla
 - c. MySQL
 - d. Microsoft Office

(b) Fill in the blanks

- i. _____ refers to any program whose source code is made available for use or modification as users or other developers see fit.
- ii. FSF founded by _____.
- iii. _____ is one of the content management systems.
- iv. VMware is a _____ software.
- v. _____ is one of the Desktop-dedicated open source operating system.

(c) Short answer (Attempt all)

- i. Public Domain Software
- ii. Copyleft
- iii. GCC and GDB
- iv. Shared Software
- v. Communication and Etiquette

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- Q. 2 Attempt the following (Any THREE)(Each of 5Marks) (15M)**
- (a) Write a note on the history of Free Software Foundation and the GNU Project.
 - (b) Diagrammatically explain Open source software development model.
 - (c) Describe in detail zero marginal cost in FOSS.
 - (d) Explain FOSS important licenses: Apache, GPL.
 - (e) Discuss the role of open source in government.
 - (f) What is software freedom? Explain its components.
- Q. 3 Attempt the following (Any THREE) (Each of 5Marks) (15M)**
- (a) Discuss the following about Openoffice.org case study:-
 - i. Introduction
 - ii. Features
 - iii. Any three components
 - (b) Define Open source hardware? How can hardware be 'Open'? Explain.
 - (c) What is GitHub? How one can contribute to it? Explain with steps.
 - (d) Explain the following points about Wikipedia open source project:-
 - i. What is it?
 - ii. Who is doing it?
 - iii. How does it work?
 - iv. What is its significance?
 - v. Where is it going?
 - (e) List and explain any five rules of Open source media.
 - (f) Explain Open source teaching and its components of communication platforms?
- Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)**
- (a) What is Linux Operating system? Discuss its any four features.
 - (b) Define Virtualization. Explain its types.
 - (c) What is Containerization? State its advantages and disadvantages.
 - (d) Write a short note on LAMP.
 - (e) Explain any three open source database technologies.
 - (f) Discuss Containerization technology - Docker.
- Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)**
- (a) Differentiate between open source and closed source.
 - (b) Write a note on Commercial design practice and Free design practice.
 - (c) Explain the following terms with examples :-
 - i. Development Tools
 - ii. Debuggers
 - iii. IDEs
 - (d) What are Open standards principles? Explain any five.
 - (e) How "FOSS does not mean no cost"? Justify.