

Paper / Subject Code: 82103 / Free & Open Source Software.
(2 1/2 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.
5) Assume suitable data wherever required.

Q1 Attempt All(Each of 5 marks) (15)

a) Multiple Choice Questions

- 1) GPL stands for
i) General Public License ii) General Public License
ii) Generic Public License iv) General Private License
2) Which of the following is not a phase of Life Cycle Paradigm / waterfall model?
i) Analysis ii) Manufacturing
iii) Design iv) Coding
3) is the founder of FSF
i) Richard Stallman ii) Denis Ritchie
iii) Ken Thomson iv) All of these
4) is a form of licensing in which an author surrenders some but not all rights under copyright law
i) Copydown ii) License
ii) Copyleft iv) Patent
5) The term BSD stands for
1) Binary software distribution ii) Berkley software distribution
iii) Binary software development iv) Berkley software development

b) Fill in the blanks

(Waterfall model, full, internationalization, Prototyping model, Firefox, localization, chrome, free hardware design, partial, open source software)

- 1) _____ is a Static, sequential and procedural approach in software engineering methodology.
2) _____ copyleft is when all parts of work can be modified by consecutive authors.
3) _____ is the process of adapting software for a specific region or language by adding locale-specific components and translating text.
4) _____ is a web browser project descended from Mozilla application suite.
5) _____ refers to design which can be freely copied, distributed, modified and manufactured.

c) Short Answers:

- 1) What is free software?
2) Define Shared software.

- 3) Define GCC.
- 4) Draw symbol of copyright.
- 5) What is Public domain software?

Q2. Attempt the following (Any THREE): (15)

- a) List and explain 4 freedoms of free software.
- b) Define BSD. Explain its history.
- c) Write a note on following:
 - i) LGPL license
 - ii) Internationalization
- d) Explain the concept 'Free does not mean no cost.'
- e) Discuss about Copyleft.
- f) Differentiate between Open source software and Closed software.

Q3. Attempt the following (Any THREE): (15)

- a) Write a note on Drupal.
- b) Describe Apache in regards with the following points:
 - i) History
 - ii) License
 - iii) Applications
- c) Define debugging. Explain GDB.
- d) What is Github? How to interact with it? Explain.
- e) Write a note on open source media.
- f) Explain Open source teaching.

Q4. Attempt the following (Any THREE): (15)

- a) Discuss Android operating system.
- b) Define virtualization. Explain its types.
- c) Write a note on LAMP.
- d) Explain OpenSolaris operating system.
- e) Define terms: IDE, Development Tools, Programming languages. Give example.
- f) Write any 5 features of Linux operating system.

Q5. Attempt the following (Any THREE): (15)

- a) Discuss Life cycle paradigm (waterfall model) as a software engineering methodology.
- b) Differentiate between commercial design and free design practice.
- c) List and explain any two open source database technologies.
- d) Explain Shared Source in regards with following points:
 - i) Definition
 - ii) Any 2 shared source licenses
 - iii) Any 2 shared source programs
- e) Discuss Openoffice.org case study in regards with following points:
 - i) introduction
 - ii) features
 - iii) any three components

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