

(2½ 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) Generle Public License
  - ii) General Public License
  - iii) 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
  - iii) Copyleft
  - iv) Patent
- 5) The term BSD stands for \_\_\_\_\_
  - i) 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)**
- List and explain 4 freedoms of free software.
  - Define BSD. Explain its history.
  - Write a note on following:
    - LGPL license
    - Internationalization
  - Explain the concept 'Free doesnot mean no cost.'
  - Discuss about Copyleft.
  - Differentiate between Open source software and Closed software.
- Q3. Attempt the following (Any THREE): (15)**
- Write a note on Drupal.
  - Describe Apache in regards with the following points:
    - History
    - License
    - Applications
  - Define debugging. Explain GDB.
  - What is Github? How to interact with it? Explain.
  - Write a note on open source media.
  - Explain Open source teaching.
- Q4. Attempt the following (Any THREE): (15)**
- Discuss Android operating system.
  - Define virtualization. Explain its types.
  - Write a note on LAMP.
  - Explain OpenSolaris operating system.
  - Define terms: IDE, Development Tools, Programming languages. Give example.
  - Write any 5 features of Linux operating system.
- Q5. Attempt the following (Any THREE): (15)**
- Discuss Life cycle paradigm (waterfall model) as a software engineering methodology.
  - Differentiate between commercial design and free design practice.
  - List and explain any two open source database technologies.
  - Explain Shared Source in regards with following points:
    - Definition
    - Any 2 shared source licenses
    - Any 2 shared source programs
  - Discuss Openoffice.org case study in regards with following points:
    - introduction
    - features
    - any three components

\*\*\*\*\*