

# **Lamrin Tech Skills University Punjab**

## **University School of Engineering and Technology**

### **End Term Examination Jan 2025**

Programme: **B.Tech (CSE)**

Semester: **Third**

Course Title: **Open Source Software and Open Standards**

Course Code: **UGCS-106**

Time: **3 Hrs.**

Max. Marks: **50**

#### **INSTRUCTIONS TO CANDIDATES**

1. SECTION-A is Compulsory carrying one mark each.
2. SECTION-B: You have to attempt 4 questions carrying 5 marks each.
3. SECTION-C: You have to attempt 2 questions each carrying 10 marks each.

#### **SECTION A**

Q1.

- i) Define copyleft and explain its relevance to open-source licensing.
- ii) Differentiate between closed standards and open standards with one example each.
- iii) Who founded the Free Software Foundation of India, and what was its primary mission?
- iv) What is the significance of the OSS development process in the evolution of software?
- v) What key attribute differentiates de facto standards from de jure standards?
- vi) Name two popular open-source programming languages and their primary use cases.
- vii) Identify one key driver for the adoption of open-source software in education.
- viii) Briefly explain the term 'libre software' and how it contrasts with proprietary software.
- ix) What is the role of standard-setting organizations in the global tech ecosystem?
- x) State one historical milestone in IBM's journey with open-source software.

#### **SECTION B**

Q2. Compare and contrast the licensing structures of Open Source Software and Closed Source Software, citing relevant examples.

Q3. Discuss the impact of the Open Source Initiative on modern software development.

Q4. Analyze the challenges associated with the adoption process of open standards in emerging markets like India.

Q5. Describe the stages of the standard development lifecycle with examples of each stage.

Q6. What is the difference between copyright and copyleft in the context of open-source contributions? Illustrate with examples.

Q7. Explore the role of IBM in promoting cloud open standards and its importance to industry adoption.

#### **SECTION C**

Q8. Evaluate the historical evolution of open-source software, focusing on the key milestones that shaped its global adoption.

Q9. Investigate the benefits and challenges of using open-source software in multimedia applications. Provide specific examples and case studies.

Q10. Examine the interplay between open-source governance and the role of communities in fostering innovation and sustainability.

