

B. Sc. IT (HONS.) 2020: 3 <sup>rd</sup> Semester				
Course	Credits-06		Total Marks- 90	
	Theory	Practical	Theory	Practical
BIT320C1: OPEN SOURCE TOOLS & TECHNOLOGIES	04	02	60	30

**THEORY: 4 CREDITS;**

**MAX. MARKS: 60**

**MIN. MARKS: 24**

### UNIT-I

**Introduction :** Need of Open Sources – Advantages of Open Sources – Applications – FOSS – FOSS usage - Free Software Movement, Commercial aspects of Open Source movement - Certification courses issues - global and Indian. Application of Open Sources–Commercial aspects of Open Source movement-. Contrasting and comparing open source vs. traditional development Methodologies

### UNIT-II

**Introduction to Linux,** History of Linux – Features of Linux - Drawbacks of Linux, Components of Linux, Difference between Linux and Windows. Difference between Linux and UNIX, Linux is Virus proof, Various Linux Distributions, Pros and Cons Understanding Files and Directories in Linux - File Structure and hierarchy, File Permissions, root, shell, Using VI editor and command associated with it.

### UNIT III

**Linux Commands and Utilities:** Basic Commands –mkdir, touch, ls, pwd, cd, chmod, df, du, dd, adduser, passwd, [rm](#), [rmdir](#), [date](#). cat, tail, cmp, diff, wc, sort , rmdir, cp, more , who, whoami, mv, chmod, kill, write, wall, merge , mail, news – pipes, filters and redirection utilities

### UNIT-IV

**Shell Scripts:** Creating and executing simple shell programs – variables – special characters – comparison of expressions – iteration statements – conditional statements – functions..

**Open source software tools:** Browsers – Processors – Compilers.

**PRACTICAL: 2 CREDITS;**

**MAX. MARKS: 30**

**MIN. MARKS: 12**

**Note: The Practical Component shall be based on the Unit-I to Unit-IV**

### References

1. N. B. Venkateshwarlu (Ed); Introduction to Linux: Installation and Programming, B S Publishers; 2005.
2. Matt Welsh, Matthias Kalle Dalheimer, Terry Dawson, and Lar Kaufman, Running Linux, Fourth Edition, O'Reilly Publishers, 2002
3. The Linux Kernel Book Rem Card, Eric Dumas and Frank Mevel Wiley Publications sons, 2003
4. Linux - The Complete Reference Richard Peterson Tata McGraw Hill, New Delhi