20MCA136 –NETWORKING & SYSTEM ADMINISTRATION LAB LAB

*Lab Report Submitted By*

**NEHA ANTONY**

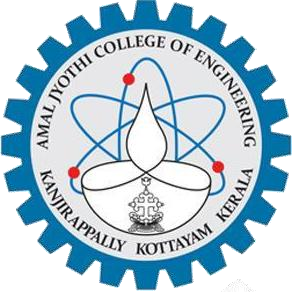
**Reg. No.:AJC21MCA-2081**

*In Partial fulfillment for the Award of the Degree Of*

**MASTER OF COMPUTER APPLICATIONS (2 Year)**

**(MCA)**

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**



**AMAL JYOTHI COLLEGE OF ENGINEERING KANJIRAPPALLY**

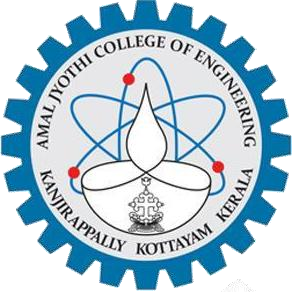
## [Affiliated to APJ Abdul Kalam Technological University, Kerala. Approved by AICTE, Accredited by NAAC with ‘A’ grade. Koovappally, Kanjirappally, Kottayam, Kerala – 686518]

**2021-2022**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**AMAL JYOTHI COLLEGE OF ENGINEERING**

**KANJIRAPPALLY**



**CERTIFICATE**

This is to certify that the Lab report, **“20MCA136 – NETWORKING & SYSTEM ADMINISTRATION LAB”** is the bonafide work of **Neha Antony (Reg.No:AJC21MCA-2081)** in partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications under APJ Abdul Kalam Technological University during the year 2021-22.

**Mrs.Grace Joseph Rev.Fr.Dr.Rubin Thottupuram Jose**

**Lab In-Charge Head of the Department**

**Internal Examiner External Examiner**

**CONTENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Content** | **Date** | **Page No** |
| **1** | Introduction to Computer hardware: Physical identification of major components of a computer  system such as mother board, RAM modules, daughter cards, bus slots, SMPS, internal storage  devices, interfacing ports. | **04-04-2022** | **1** |
| **2** | Install latest version of Ubuntu on a virtual box. | **21-03-2022** | **7** |
| **3** | Study of a terminal based text editor such as Vim or Gedit, Basic Linux commands: - familiarity with commands/operations expected | **24-03-2022** | **22** |
| **4** | Shell scripting: study bash syntax, environment variables, variables, control constructs such as if, forand while, aliases and functions, accessing command line arguments passed to shell scripts. Study of startup scripts, login and logout scripts, familiarity with systemd and system 5 init scripts is expected. | **05-05-2022** | **47** |
| **5** | Installation and configuration of LAMP stack. Deploy an open source application such as  phpmyadmin and Wordpress. | **06-06-2022** | **72** |
| **6** | Build and install software from source code, familiarity with cmake utility expected. | **02-06-2022** | **75** |
| **7** | Introduction to command line tools for networking IPv4 networking, network commands: ping route  traceroute, nslookup, ip. Setting up static and dynamic IP addresses. Concept of Subnets, CIDR  address schemes, Subnet masks, iptables, setting up a firewall for LAN, Application layer (L7)  proxies. | **23-05-2022** | **79** |
| **8** | Analyzing network packet stream using tcpdump and wireshark. Perform basic network service tests  using nc. | **07-06-2022** | **87** |
| **9** | Introduction to Hypervisors and VMs: KVM installation and commands. | **23-05-2022** | **92** |