CIT 461 –   INTERNET ARCHITECTURE & COMMUNICATIONS

Instruction: Answer Any Five Questions

Time Allowed: 3 Hours

1a.   Explain what is meant by the Internet Protocol (IP)
        4 marks

 b.   State two primary responsibilities of IP.   4 marks

 c.   Outline three main functions of IP.   6 marks

2a.   Define packet switching and write short notes on any two packet
        switching based network technologies.
                                6 marks

 b.   What does circuit switching involve?
            2 marks

 c.   Discuss three advantages of the circuit switched network over the
        packet switched network.

                                                            6 marks

3a.   List any four requirements for Internet connectivity.
        4 marks

 b.   State the primary function of ISP.   2 marks

 c.   Discuss the four different levels of ISPs.   8 marks

4.   Describe virtual private networks and write short notes on any two
tunneling protocols
14 marks

5a.   Define web design.   4 marks

 b.   Outline four basic aspects of the web design.   8 marks

 c.   State the two types of web pages.   2 marks

6a. **Discuss the principles of operation of the Web search engines.**
5 marks

b. **Describe the three different types of web hosting services.**
9 marks

7. **Propose, with seven points, a general architectural framework for the next generation of the Internet,**
14 marks