## Part A

1. A. Convert the following into IEEE 8 bit 2's complement format.
a. -32
b. -65
c. 78
d. 128
e. -70
B. Perform the following calculations using 2's complement 8 bit format
b. $30-25$
b. $40-65$
c. 65-66
d. $45-35$
C. Explain the following terms with their differences
a. Qualitative and Quantitative data
b. Web Browser and ISP
c. Primary Key and Candidate Key
d. Verification and Validation
e. Direct and Indirect data collection
f. Knowledge and Information
2. A. Provide three examples for each of the following
a. Internet Service Providers
b. Web Browser
c. Scripting Languages
d. Programming Languages
B. Write down and briefly explain two automatic methods of gathering data.
C. Explain what data validation methods are with examples.
D. Identify and describe the difference between batch processing and real time processing in data processing.
3. A. Write a description on following terms
a. Privacy
b. Piracy
c. Copyright
d. Plagiarism
e. Licensed Software
B. Briefly explain the importance of data protection act 1998.
C. Forty years ago, programming computers in assembly language was quite common. Today, it is relatively rare. Why is assembly language an unpopular means of programming computers and why is it less popular today than 40 years ago?
4. A. Briefly explain the following terms of organizational levels
a. Top Management
b. Middle Management
c. Lower Management
d. Operational Personnel
B. Explain how information systems and organizations influence each other?
C. Write down a brief description about the role of a manager in the organization?
