**Subject:** Application of Information and Communication Technologies
**Course Code:** CS181
**Class:** BSCYS-Fall 23
**Section:** A & B

**TotalMarks:** 80
**Date:** ~~10-10-2024~~ 11-01-2024
**Duration:** 3 Hours
**FM Name:** Jameel Arif

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| Q. No | Questions | Marks | CLO |
|---|---|---|---|
| 1. | Using a well-labeled diagram describe the functional components of a Computer System to elaborate information processing cycle with the help of an example. | 20 | 1 |
| 2. | Make the following conversions.<br><br>**A**<br>a. (AFCB8D) base 16 to base 10<br>b. (0111010) base 2 to base 10<br>c. (76567) base 8 to base 2<br>d. (876543) base 10 to base 8<br><br>**B.**<br>a. (323232) is a base 32 number convert it to Hexadecimal number | 20+10 | 2 |
| 3. a) | Draw the hierarchy of Programming languages with respect to their complexity from more complex to easier. | 10 | 3 |
| 3. b) | Compare and contrast the OSI model and the TCP/IP model in terms of their architectural layers and key functionalities. Create a labeled diagram that visually represents the mapping between the layers of the OSI model and the TCP/IP model. Clearly illustrate the similarities and differences between the two models, and provide concise explanations for each layer's role and the protocols associated with them. Use appropriate symbols, labels, and annotations to enhance the clarity of your diagram. | 20 | 3 |