| Rubric for Final Exam |  |  |  |
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|  | Underdeveloped (I-2) | Solid/Fair (3-5) | Excellent (6) |
| Troubleshooting | Approaches provided do not solve or help diagnose problem. | Is able to provide a list of approaches to diagnose the problem, but some of the approaches might not be helpful or related to the problem. Procedure might be unclear or missing key steps. | Observes the problem, generates list of possible causes, provides solutions and gives a clear procedure to further assess and correct the error. |
| Concepts and definitions of communication protocol standards | Does not fully understand concepts or cannot apply/implement circuits using different protocols. | Student can recall concepts and apply/implement circuits using different protocols, but does not justify why protocols were implemented in the way they were. | Student not only recalls the concepts, but can explain and justify the design choices made in the development of the protocols. |
| Understanding of maximum ratings, specifications and underlying circuitry | Cannot connect the underlying circuitry with speed, power and other specifications. | Understands the relationship underlying circuitry with speed, power and other specifications, but cannot explain the origin of the relationship. | Can explain/justify the relationship between underlying circuitry with speed, power and other specifications and provide explanation for different trade-offs. |
| Datasheet interpretation and application | Cannot interpret information in a datasheet and apply it to communicate with a device. | Can interpret some information in a datasheet, but unsure how to apply it. | Can interpret information in a datasheet and apply it to communicate with a device. |
| Programming | Cannot translate a program specification into (pseudo)code. | Can translate a program specification into (pseudo)code, but resulting code might not work properly or be robust to incorrect inputs. | Can translate a program specification into (pseudo)code and resulting code is efficient and robust to arbitrary inputs. |

