**Solved Past Paper TPL Finals Fall 2018**

|  |
| --- |
| **Q1a. Explain static and stack dynamic variables.** |
| **Chapter 5: Slide 20 – 21** |

|  |
| --- |
| **Q1b. What are scope and life time of a variable?** |
| **Chapter 5: Slide 39**    **Book: Page No 246 – 247 (ager slide confusing lgay tau read below script from book)** |

|  |
| --- |
| **Q1c. What will be the output of following program?** |
|  |

|  |
| --- |
| **Q2a. Discuss homogenous and heterogenous arrays.** |
| **Homogenous arrays**  **Chapter 6. Slide 21,**    **Heterogenous arrays**  **Chapter 6: Slide 30** |

|  |
| --- |
| **Q2b. A new programming language MyPL is designed by one of your friends. Do we agree with his design choices?** |
| Q2b Part a: Array subscripts can be an integer or an integer expression. Subscript cannot be of any other data type including enum data types. |
| **Chapter 6: Slide 23 – 24** |

|  |
| --- |
| Q2b Part b: Subscript range checking is not done. |
| **Chapter 6: Slide 25 – 28**    **Book: Page 276, Ager slides confusing lgay tau read below from book.** |
| Q2b Part C: Array initialization is not allowed. |
| **Chapter 6: Slide 29** |

|  |
| --- |
| **Q3a. What is the difference between pretest and posttest loops? Discuss pretest and posttest loops of C/C++.** |
| **Book: Chapter 8 - Page 373** |

|  |
| --- |
| **Q3b. Design issues in multiple selection constructs. Such as switch statement in C/C++. Elaborate each of them.** |
| **Chapter 8: Slide 15 – 17** |

|  |
| --- |
| **Q4a. Convert the below BNF to EBNF.** |
| **Book: Chapter 3, Page 150** |

|  |
| --- |
| **Q4b. How lexical analyzer interacts with syntax analyzer?** |
| **Theoretical Portion of answer**  **Book: Chapter 4 - Page 188**    **Graphical representation**  **Chapter 4: Slide 13** |

|  |
| --- |
| **Q5. Create a parse tree using bottom up approach.** |
| **Book: Chapter 4 – Page 203** |