

# Revision

# Distribution of Marks

- Multiple choice questions
  - 20%
- Outputs of programs
  - 25%
- Comprehensive questions
  - 25%
  - One “correction” question, two “filling in blank” questions
- Programming
  - 30%

# Time and Regulations

- 2 hours
- Cover all the topics
- No calculators
- No lecture notes

# Covered Topics

- Primary data types and variables
  - Basic data types
  - Keywords
  - Variable declaration
- Formatted I/O
  - How to read data in a format
  - How to output data in a format
- Expressions
  - How to calculate an expression
  - Basic operators
  - Operator precedence

# Covered Topics

- Decision making
  - if statement
  - if\_else statement
  - if\_else\_if statement
  - switch statement
- Looping
  - while statement
  - do-while statement
  - for statement
  - Nested looping
  - break
  - continue

# Covered Topics

- Array and structure
  - declare an array
  - declare a structure
  - access an element of an array
  - access a field in a structure
- Function
  - Function prototype
  - Formal parameter
  - Actual parameter
  - Return values through return statement and parameters
  - Function call
  - Recursion

# Covered Topics

- String
  - String declaration
  - String operation
- Pointer
  - declare a pointer
  - use a pointer
  - allocate memory and free allocated memory
  - use array name as an address
  - use pointer with a structure

# Covered Topics

- File
  - open a file
  - read a file (text and binary)
  - write a file (text and binary)
  - close a file
- Dynamic memory allocation
  - Allocate memory
  - Release memory



# Tips

- Understand and practice examples in the lecture slides.
- Review and understand lab solutions and assignment solutions
- In the examination, don't block yourself at the difficult questions. Try to finish the easy questions first.
- Check your answers carefully. Be sure you have not missed any questions.