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Mid Term Exam- 2017

Sub- Comp.Sc.(G)
FM- 25

Class-B.Sc.(G),1st Yr.
Time:1 hr.

1. Answer **any five** questions: 2 X 5
- (a) What are the advantages of a compiler over an interpreter?
 - (b) Convert the decimal numbers 168 and 777 into BCD and find their sum (in BCD).
 - (c) Compare between combinational and sequential logic.
 - (d) Compare between super computer and main frame computer.
 - (e) Discuss in brief the concept of virtual memory.
 - (f) What is device driver?
 - (g) What do you mean by a multiplexer?
 - (h) Define data and information. Give suitable examples.
 - (i) What is process?

GROUP-A

(Answer **any one**)

2. Draw and explain the block diagram of Von Neumann architecture. Distinguish between system software and application software. 3+2
3. Write advantages and disadvantages of low level and high level language. Name two primary and two secondary devices. 3+2

GROUP-B

(Answer **any one**)

4. Convert $(13.52)_{10}$ into 8 bit floating point representation. Implement Ex-OR gate using only Ex-NOR gates. 3+2
5. Explain the functionality of 4x1 MUX with block diagram and truth table. Minimize the following expression using K-map: $y = \sum m = (0, 2, 5, 6, 7, 8, 10, 13, 15)$ 3+2

GROUP-D

(Answer **any one**)

- 6.
- a) What are major functions of an operating system?
 - b) What are internal and external fragmentations? Discuss the dynamic partitions memory management scheme.
- 2+3

7.

- a) Distinguish between multitasking and multiprogramming.
 - b) Write down the major functions of long term and short term scheduler.
- 2+3