

B. E. (First/Second Semester), EXAMINATION, JUNE-2012
(Grading System)
(Common for all Branches)
BASIC COMPUTER ENGINEERING

Time : Three Hours, Maximum Marks : 70, Minimum Pass Marks : 22 (D Grade)

Note : Attempt five questions selecting one from each unit. Assume suitable missing/misprint data, if any. All questions carry equal Marks.

UNIT I**rgpvonline.com**

Q1 (a) Define following: (i) Instruction Register (ii) Program Counter 7

(b) Explain how CPU communicates with Input/Output devices 7

OR

Q2 (a) What is function of following: (i) Address Bus (ii) Control Unit 7

(b) Differentiate between Main Memory and Cache memory with a diagram . 7

UNIT II

Q3 (a) Explain following types of operating functions 7

(i) Time sharing (ii) Multiprogramming

(b) Explain various states of a process with diagram. 7

OR

Q4 (a) How is CPU scheduling performed by operating systems. 7

(b) Differentiate Top-down and Bottom-up program design methods. 7

UNIT III

Q5 (a) Explain how base class member functions can be invoked in a derived class if the derived class also has a member function with the same name. 7

(b) Write a C++ program to find second largest number in a given array of 100 integers. 7

OR

Q6(a) Write a C++ Program to overload > operator to find heavier of two stones according to their weights. 7

(b) What is constructor? Can a class in C++ have more than one constructor with the same name ? Justify your answer. 7

UNIT IV

Q7 (a) What is Data Independence? Differentiate between logical and physical data independence. 7

(b) What is function of following: (i) DBA (ii) Data dictionary 7

OR

Q8 (a) Differentiate between following 7

(i) Domain and attribute

(ii) Data definition language and Data manipulation language.

(b) Describe network data model. What are records and sets in network data model. 7

UNIT V

Q9(a) What is function of: (i) Bridge (ii) Network Interface Card 8

(b) Which OSI Layer performs following 6

(i) Breaking the bit stream into frames

(ii) Determine which route to use

(iii) Provide synchronization

OR

Q10 (a) What is function of following devices: (i) Router (ii) Modem 8

(b) Briefly describe the different threats to network security ? 6

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