R-17/09

(i) Printed Pages: 2 Roll No. .....

(ii) Questions : 9

Sub. Code : 0291

Exam. Code : 0003

B.A./B.Sc. (General) 3rd Semester

(2122)

COMPUTER SCIENCE

Paper : CS05 Theory-A (Computer Organization)

Time Allowed : Three Hours] [Maximum Marks : 30

Note :— Attempt **FIVE** questions in all, including Question No. 9 (Section-E) which is compulsory and selecting **ONE** question each from Sections-A-D.

SECTION—A

1. Describe various approaches to store real numbers in modern computers with suitable example. 6

2. (a) Prove using truth table that :

$A + A' . B = A + B$

$A + (B . C) = (A + B)(A + C)$

(b) Convert the following :

$(7688)_{10} = (?)_2$

$(664)_8 = (?)_{10}$ 3+3

SECTION—B

3. What do you mean by multiplexer ? Discuss 4 to 1 multiplexer using a diagram. 6

4. What do you mean by an interrupt ? Describe interrupt cycle with suitable diagram. 6

SECTION—C

5. What do you mean by addressing modes ? Describe register, register indirect and immediate addressing modes with example. 6

6. Differentiate between machine language and assembly language. 6

SECTION—D

7. What do you mean by virus ? Describe various symptoms of viruses affecting your computer system. 6

8. What do you mean by a card ? Name various internal and external cards available in your PC. Also write their functions. 6

SECTION—E

9. Explain the following terms :—

   (a) Hamming Code

   (b) Half Adder

   (c) Peripheral Devices

   (d) Flag Register. 4×1.5=6