**T.Y.B.SC. SEM – VI (2014 COURSE) : SUMMER - 2018**

**SUBJECT : PHYSICS : COMPUTATIONAL PHYSICS**

**Day :** Wednesday **Time :** 12.00 NOON TO 02.00 PM

**Date :** 18/04/2018 **S-2018-0777** **Max. Marks : 40**

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**Note :**

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Draw neat and labeled diagrams **WHEREVER** necessary.

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Q1. Attempt any **TWO** of the following. **(10)**

**(a)** Draw the symbols used in the flow chart.
**(b)** Write a program for addition of two matrices
**(c)** Explain how the function is called by value with a suitable program.

Q2. Attempt any **TWO** of the following. **(10)**

**(a)** Explain variables and constants in C programming.
**(b)** Explain relational operators in C program.
**(c)** Write a program to find the roots of a differential equation.

Q3. Attempt any **TWO** of the following. **(10)**

**(a)** What is a computer? Draw its block diagram and explain it
**(b)** Write a program to convert a number from Decimal system to Binary system.
**(c)** Write a program to find the largest number in an array. Draw its flow-chart

Q4. Attempt any **FIVE** of the following. **(10)**

**(a)** Define (i) memory and (ii) command.
**(b)** Write a program to display integers from 5 to 10 by using FOR statement.
**(c)** Write a program to sum of digits of a given number.
**(d)** Explain (i) hardware and (ii) higher level language.
**(e)** Write a program to find a power of a given number
**(f)** Write a program to find the length of a given string.
**(g)** Explain the C character set.

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