No. of Printed Pages : 03 **Roll No. .....**

18BB1101

M. Tech. EXAMINATION, May 2019

(Second Semester)

(C Scheme) (Main Only)

EE(PS)

MPS502C

DIGITAL PROTECTION OF POWER SYSTEM

Time : 3 *Hours*] [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) Draw the typical digital relay hardware structure and explain it. **8**

(b) Write the Walsh algorithm. **7**

2. Explain the digital differential protection of transformer. **15**

Unit II

3. (a) Explain the name of different types of digital filters. **5**

(b) Write the Full cycle Fourier algorithm. **10**

4. (a) Explain the central difference interpolation. **8**

(b) Write curve-fitting technique. **7**

Unit III

5. (a) Explain the infinite impulse response filter. **8**

(b) What is aliasing ? Explain anti aliasing filter. **7**

6. (a) Draw the schematic block diagram of typical data acquisition system and explain it. **8**

(b) Explain the analog to digital converstion technique and explain it. **7**

Unit IV

7. (a) Write the different types of digital relaying algorithms. **7**

(b) Explain the derivative approximation method. **8**

8. (a) Write the name of different types of phasor compulation Fourier algorithms. **7**

(b) Explain the travelling wave based technique. **8**