

Roll No.

24319

B. Tech. (EEE) 6th Sem.

Examination – May, 2015

POWER SYSTEMS - II

Paper : EE-312-F

Time : Three Hours]

[Maximum Marks : 100

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

Note : Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*. Each question carries 20 marks.

1. (a) What are symmetrical component ? Explain in brief.
- (b) Explain current chopping.
- (c) Define the following terms :

Pick up value, Reset value, Operating time, Reset time.

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(d) Write a short note on amplitude Comparator.

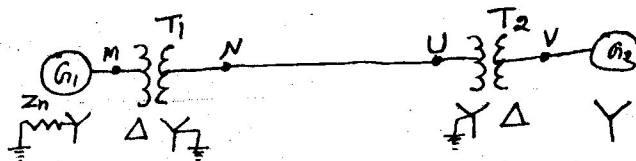
$5 \times 4 = 20$

SECTION - A

2. (a) Explain phase shift in $Y - \Delta$ transformer. 10

(b) Write a short note on short circuit of a synchronous machine on ho load. 10

3. (a) For the power system whose one line diagram is given below, sketch the zero sequence network : 10



(b) Derive an expression for L-G fault. 10

SECTION - B

4. Discuss the principle of arc interruption in :

(i) an OCB,

(ii) Air Blast Circuit Breaker .

20

5. Explain Transformer protection in detail.

20

SECTION - C

6. Classify various type of over current relays give their application along with approximate characteristics. 20

7. Write short note on : 10 + 10 = 20

(a) 3-zone protection,

(b) Impedance Relay.

SECTION - D

8. Define static relay. Explain its construction & working also differentiate it with electromechanical relays. 20

9. Explain Numerical Protection scheme in detail with its application. 20
