

Roll No

EX-603 (GS)**B.E. VI Semester**

Examination, May 2018

Grading System (GS)**Switch Gear and Protection***Time : Three Hours**Maximum Marks : 70***Note:** i) Attempt any five questions.

ii) All questions carry equal marks. rgpvonline.com

1. a) Discuss the merits of per unit computation in power system. 7
- b) What are current limiting reactors and its location with applications? 7
2. a) Describe MHO and reactance relay with R-X diagram. 7
- b) Describe and define the following terms: 7
 - i) Pick-up
 - ii) Drop-off
 - iii) Drop off/Pick up ratio
 - iv) Burden

3. a) Describe the vacuum circuit breaker in detail with neat sketches. 7
- b) Discuss in detail the arc characteristics and current chopping in SF₆ gas circuit breaker. 7
4. a) Describe Merz-price protection of transformer. 7
- b) Discuss the protection of a three-phase alternator in the event of following: 7
 - i) Loss of prime mover
 - ii) Loss of excitation
5. a) What is B.I.L. and insulation co-ordination? 7
- b) Explain the phenomena of lighting and protection against it. 7
6. a) Describe different protection of generators. 7
- b) With the help of neat sketch explain the working of Buchholz relay used for transformer protection. 7
7. What is earthing transformers and describe the use of earth wires in power system? 14
8. Write short notes on the any two of the following: 14
 - a) Surge absorber
 - b) Carrier aided distance protection
 - c) Primary and Backup protection
