	ADAMAS UNIVERSITY **END-SEMESTER EXAMINATION : MAY 2021** (Academic Session: 2020 – 21)		
Name of the Program:	B.Tech	**Semester:**	VI
Paper Title :	POWER SYSTEM II	**Paper Code:**	EEE43102
Maximum Marks :	**40**	**Time duration:**	3 Hrs
Total No of questions:	8	**Total No of Pages:**	2
(Any other information for the student may be mentioned here)			

Answer all the Groups

Group A

Answer all the questions of the following $5 \times 1 = 5$

1.

a) What is arc?
b) What is restriking voltage?
c) Explain how integral control can estimate static frequency drop.
d) What are the advantages of interconnected operation of power system?
e) What is then different between isolator and circuit breaker?

GROUP –B

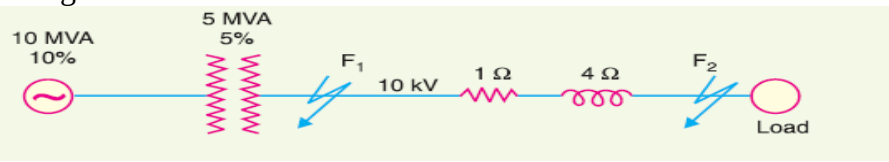
Answer *any three* of the following $3 \times 5 = 15$

2. What are the different types of bus explain properly. (2+3)
3. Explain Swing equation and how it is related to Power system stability? (2+3)
4. What is shunt compensator? Why it is necessary? (2+3)
5. What is Arc phenomenon and what are the factors on which arc resistance depends upon? (2+3)

GROUP –C

Answer *any two* of the following $2 \times 10 = 20$

6. A 3-phase transmission line operating at 10 kV and having a resistance of 1Ω and reactance of 4 Ω is connected to the generating station bus-bars through 5 MVA step-up transformer having a reactance of 5%. The bus-bars are supplied by a 10 MVA alternator having 10% reactance. Calculate the short-circuit kVA fed to symmetrical fault between phases if it occurs (i) at the load end of transmission line (ii) at the high voltage terminals of the transformer.



7. Explain LL fault with faults current, equivalent circuits and impedance value. What are the different types of circuit breaker? (5+5)

8. Explain induction relay and Merz- price protection for an alternator. (5+5)
