

Code: 17EEPC1T1

I M.Tech - I Semester – Supplementary Examinations February 2020

**ADVANCED COMPUTATIONAL METHODS IN
POWER SYSTEMS
(POWER SYSTEM & CONTROL)**

Duration: 3 hours

Max. Marks: 60

Answer the following questions.

1. a) Discuss the formation of network matrices by singular transformation. 7 M

b) Define the following: 8 M

- i. Graph ii. Bus incidence Matrix
- iii. Loop incidence Matrix iv. Branch path Incidence.

(OR)

2. a) Form Y-Bus for the network, using singular transformation 11 M

Element	Positive sequence reactance
E – A	0.04
E – B	0.05
A – B	0.04
B – C	0.03
A – D	0.02
C – F	0.07
D – F	0.10

8. Develop the Expression for Z_{bus} building algorithm, if the elements added is a link which is mutually coupled with another element. 15 M