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## **Material Covered for Midterm I**

Text Sections 1.1

Text Sections 2.1,2.2,2.3,2.4;

(also several matching problems involving impedance or admittance formulation using Smith Chart)

Text Sections 3.5,3.7,3.8,3.11 ( the Coaxial Line,the Strip Line,the Microstripline and the Slot Line)

Text Section 4.3 ( the Scattering Matrix p.174, Reciprocal Networks and Lossless Networks p.177,Generalized S-parameters pp.181/182)

Text Section 4.5 and handout Notes for Chapter 4( Signal Flow Graphs, The Mason's Formula for solving 2-,3- and 4-port Circuits)

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### **Material covered after Midterm I [ for Midterm II]**

**Section 12.1 ( Section 11.1 for 3 rd. Edition) ( Two port power gains); also pages for amplifier gain of Chapter 4 Notes**

**Section 4.4 ABCD Matrix**

**Section 5.1 Matching with Lumped Elements\_ Inverted L Networks [ Examples from Chapter 5 Notes]**

**Chapter 7 Section 7.1 ( Three port networks; four port networks; directional couplers; symmetric coupler; antisymmetric coupler)**

**Section 7.2 The T-junction Power Divider**

**Section 7.5 The Quadrature ( 90 degree hybrid) -- Branch line coupler**

**Section 7.8 The 180 degree hybrid--Ring Hybrid**

**Section 7.6 Coupled Line Directional Couplers**

**Chapter 8 Section 8.2 Filter design by image parameter method (**  
**Design of low pass constant- k and m-derived filters)**  
**Design of composite filters**

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