Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14137625*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ $\big/$ 10
Student's name	***JESUS EMMANUEL MORALES MENUIOLA***		

Answers

1. (a) $I_{Z1} = (0.256\,13 - \mathrm{j}0.405\,78)\,\mathrm{A}$

    (b) $I_{Z2} = (-0.204\,91 + \mathrm{j}0.324\,62)\,\mathrm{A}$

    (c) $I_{Z3} = (0.453\,74 + \mathrm{j}0.3999)\,\mathrm{A}$

    (d) $I_{Z4} = (0.324\,62 + \mathrm{j}0.204\,91)\,\mathrm{A}$

    (e) $I_{Z5} = (0.180\,35 + \mathrm{j}0.113\,84)\,\mathrm{A}$

    (f) $I_{Z6} = (-0.453\,74 - \mathrm{j}0.3999)\,\mathrm{A}$

2. (a) $V_{RMS} = 6.8159\,\mathrm{V}$

    (b) $V_{ARV} = 6.2073\,\mathrm{V}$

3. $Z_{eq} = (2.25 + \mathrm{j}3)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14121732*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*JOEL GERARDO AGUERO LLANAS*		

Answers

1. (a) $I_{Z1} = (0.1706 + \text{j}0.017\,157)\,\text{A}$

   (b) $I_{Z2} = (-0.094\,775 - \text{j}0.009\,531\,9)\,\text{A}$

   (c) $I_{Z3} = (-0.130\,97 + \text{j}0.540\,72)\,\text{A}$

   (d) $I_{Z4} = (-0.012\,255 + \text{j}0.121\,85)\,\text{A}$

   (e) $I_{Z5} = (-0.042\,893 + \text{j}0.426\,49)\,\text{A}$

   (f) $I_{Z6} = (0.130\,97 - \text{j}0.540\,72)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (3 + \text{j}5.25)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14124427*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ $\big/10$
Student's name	***JERSON CHAVEZ ORTIZ***		

Answers

1. (a) $I_{Z1} = (0.172\,45 - j0.010\,423)\,\text{A}$

   (b) $I_{Z2} = (-0.344\,89 + j0.020\,845)\,\text{A}$

   (c) $I_{Z3} = (0.202\,23 + j0.482\,28)\,\text{A}$

   (d) $I_{Z4} = (0.008\,933\,7 + j0.147\,81)\,\text{A}$

   (e) $I_{Z5} = (0.020\,845 + j0.344\,89)\,\text{A}$

   (f) $I_{Z6} = (-0.202\,23 - j0.482\,28)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (5.25 + j1.5)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14156040*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*LUIS ANTNONIO FERNENDEZ CARRASCO*		

Answers

1. (a) $I_{Z1} = (0.145\,95 - j0.029\,486)\,A$

   (b) $I_{Z2} = (-0.233\,52 + j0.047\,178)\,A$

   (c) $I_{Z3} = (0.1531 + j0.306\,65)\,A$

   (d) $I_{Z4} = (0.039\,315 + j0.1946)\,A$

   (e) $I_{Z5} = (0.026\,21 + j0.129\,73)\,A$

   (f) $I_{Z6} = (-0.1531 - j0.306\,65)\,A$

2. (a) $V_{RMS} = 6.8159\,V$

   (b) $V_{ARV} = 6.2073\,V$

3. $Z_{eq} = (6 + j4.5)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14156037*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	***MICHAEL MURILLO MENDEZ***		

Answers

1. (a) $I_{Z1} = (0.044\,331 + \text{j}0.048\,022)\,\text{A}$

   (b) $I_{Z2} = (-0.066\,496 - \text{j}0.072\,034)\,\text{A}$

   (c) $I_{Z3} = (-0.255\,68 + \text{j}0.2805)\,\text{A}$

   (d) $I_{Z4} = (-0.2161 + \text{j}0.199\,49)\,\text{A}$

   (e) $I_{Z5} = (-0.061\,743 + \text{j}0.056\,997)\,\text{A}$

   (f) $I_{Z6} = (0.255\,68 - \text{j}0.2805)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (2.25 + \text{j}6.75)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*11073892*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*JOSUE AMADOR SIFUENTES*		

Answers

1. (a) $I_{Z1} = (0.2117 - j0.1372)\,\text{A}$

   (b) $I_{Z2} = (-0.317\,55 + j0.2058)\,\text{A}$

   (c) $I_{Z3} = (0.551\,75 + j0.619\,42)\,\text{A}$

   (d) $I_{Z4} = (0.3087 + j0.476\,32)\,\text{A}$

   (e) $I_{Z5} = (0.1372 + j0.2117)\,\text{A}$

   (f) $I_{Z6} = (-0.551\,75 - j0.619\,42)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (4.5 + j2.25)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*11268436*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*EDUARDO ZALDIVAR MARTINEZ*		

Answers

1. (a) $I_{Z1} = (0.110\,78 + \mathrm{j}0.048\,797)\,\mathrm{A}$

    (b) $I_{Z2} = (-0.387\,73 - \mathrm{j}0.170\,79)\,\mathrm{A}$

    (c) $I_{Z3} = (0.123\,24 + \mathrm{j}0.470\,95)\,\mathrm{A}$

    (d) $I_{Z4} = (-0.068\,315 + \mathrm{j}0.155\,09)\,\mathrm{A}$

    (e) $I_{Z5} = (-0.085\,394 + \mathrm{j}0.193\,87)\,\mathrm{A}$

    (f) $I_{Z6} = (-0.123\,24 - \mathrm{j}0.470\,95)\,\mathrm{A}$

2. (a) $V_{RMS} = 6.8159\,\mathrm{V}$

    (b) $V_{ARV} = 6.2073\,\mathrm{V}$

3. $Z_{eq} = (3 + \mathrm{j}2.25)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14140390*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*LUIS DAVID MARENTES REYES*		

Answers

1. (a) $I_{Z1} = (0.097\,378 - j0.166\,43)\,\text{A}$

   (b) $I_{Z2} = (-0.111\,29 + j0.1902)\,\text{A}$

   (c) $I_{Z3} = (0.370\,54 + j0.184\,89)\,\text{A}$

   (d) $I_{Z4} = (0.1902 + j0.111\,29)\,\text{A}$

   (e) $I_{Z5} = (0.166\,43 + j0.097\,378)\,\text{A}$

   (f) $I_{Z6} = (-0.370\,54 - j0.184\,89)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (2.25 + j6)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*12068799*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*JESUS ANTONIO ROBLESREYES*		

Answers

1. (a) $I_{Z1} = (0.102\,66 - j0.234\,84)\,\text{A}$

   (b) $I_{Z2} = (-0.256\,64 + j0.587\,09)\,\text{A}$

   (c) $I_{Z3} = (0.615\,27 - j0.150\,61)\,\text{A}$

   (d) $I_{Z4} = (0.167\,74 + j0.073\,325)\,\text{A}$

   (e) $I_{Z5} = (0.293\,55 + j0.128\,32)\,\text{A}$

   (f) $I_{Z6} = (-0.615\,27 + j0.150\,61)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (6.75 + j1.5)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14150725*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*LILIANA VERA GLZ*		

Answers

1. (a) $I_{Z1} = (0.453\,04 - j0.343\,89)\,\text{A}$

    (b) $I_{Z2} = (-0.339\,78 + j0.257\,92)\,\text{A}$

    (c) $I_{Z3} = (0.259\,29 + j0.576\,77)\,\text{A}$

    (d) $I_{Z4} = (0.114\,63 + j0.151\,01)\,\text{A}$

    (e) $I_{Z5} = (0.257\,92 + j0.339\,78)\,\text{A}$

    (f) $I_{Z6} = (-0.259\,29 - j0.576\,77)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

    (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (3 + j4.5)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14125016*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ $/10$
Student's name	*DAVID OTHONIEL SALDIVAR PEREZ*		

Answers

1. (a) $I_{Z1} = (0.254\,48 - \text{j}0.007\,648\,7)\,\text{A}$

   (b) $I_{Z2} = (-0.127\,24 + \text{j}0.003\,824\,4)\,\text{A}$

   (c) $I_{Z3} = (-0.116\,92 + \text{j}0.347\,38)\,\text{A}$

   (d) $I_{Z4} = (0.004\,589\,2 + \text{j}0.152\,69)\,\text{A}$

   (e) $I_{Z5} = (0.005\,736\,5 + \text{j}0.190\,86)\,\text{A}$

   (f) $I_{Z6} = (0.116\,92 - \text{j}0.347\,38)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (1.5 + \text{j}5.25)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*1205596*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*ALBERTO VAZQUEZ MEDINA*		

Answers

1. (a) $I_{Z1} = (0.274\,63 - j0.015\,492)\,\text{A}$

   (b) $I_{Z2} = (-0.196\,16 + j0.011\,066)\,\text{A}$

   (c) $I_{Z3} = (-0.055\,872 + j0.404\,92)\,\text{A}$

   (d) $I_{Z4} = (0.009\,682\,6 + j0.171\,64)\,\text{A}$

   (e) $I_{Z5} = (0.012\,91 + j0.228\,86)\,\text{A}$

   (f) $I_{Z6} = (0.055\,872 - j0.404\,92)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (4.5 + j5.25)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*12666518*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*SAMUEL ROSAS GONZALEZ*		

Answers

1. (a) $I_{Z1} = (0.208\,63 - \text{j}0.087\,843)\,\text{A}$

   (b) $I_{Z2} = (-0.149\,02 + \text{j}0.062\,745)\,\text{A}$

   (c) $I_{Z3} = (0.090\,98 + \text{j}0.382\,75)\,\text{A}$

   (d) $I_{Z4} = (0.087\,843 + \text{j}0.208\,63)\,\text{A}$

   (e) $I_{Z5} = (0.062\,745 + \text{j}0.149\,02)\,\text{A}$

   (f) $I_{Z6} = (-0.090\,98 - \text{j}0.382\,75)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (6.75 + \text{j}5.25)\,\Omega$

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*12064655*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*EDSON ORLANDONAVARRO RAMIREZ*		

Answers

1. (a) $I_{Z1} = (0.115\,47 + \text{j}0.038\,462)\,\text{A}$

   (b) $I_{Z2} = (-0.089\,808 - \text{j}0.029\,915)\,\text{A}$

   (c) $I_{Z3} = (-0.122\,88 + \text{j}0.283\,33)\,\text{A}$

   (d) $I_{Z4} = (-0.029\,915 + \text{j}0.089\,808)\,\text{A}$

   (e) $I_{Z5} = (-0.067\,308 + \text{j}0.202\,07)\,\text{A}$

   (f) $I_{Z6} = (0.122\,88 - \text{j}0.283\,33)\,\text{A}$

2. (a) $V_{RMS} = 6.8159\,\text{V}$

   (b) $V_{ARV} = 6.2073\,\text{V}$

3. $Z_{eq} = (3.75 + \text{j}3)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*11126870*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*JUAN GAEL GONZALEZ RODRIGUEZ*		

Answers

1. (a) $I_{Z1} = (0.214\,18 - \mathrm{j}0.391\,92)\,\mathrm{A}$

    (b) $I_{Z2} = (-0.160\,64 + \mathrm{j}0.293\,94)\,\mathrm{A}$

    (c) $I_{Z3} = (0.469\,02 + \mathrm{j}0.383\,56)\,\mathrm{A}$

    (d) $I_{Z4} = (0.261\,28 + \mathrm{j}0.142\,79)\,\mathrm{A}$

    (e) $I_{Z5} = (0.261\,28 + \mathrm{j}0.142\,79)\,\mathrm{A}$

    (f) $I_{Z6} = (-0.469\,02 - \mathrm{j}0.383\,56)\,\mathrm{A}$

2. (a) $V_{RMS} = 6.8159\,\mathrm{V}$

    (b) $V_{ARV} = 6.2073\,\mathrm{V}$

3. $Z_{eq} = (3 + \mathrm{j}1.5)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14155580*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ $/10$
Student's name	*LUIS ALEJANDRO URBINA GONZALEZ*		

Answers

1. (a) $I_{Z1} = (0.158\,24 - j0.025\,313)\,A$

    (b) $I_{Z2} = (-0.474\,71 + j0.075\,94)\,A$

    (c) $I_{Z3} = (0.376\,14 + j0.322\,36)\,A$

    (d) $I_{Z4} = (0.037\,97 + j0.237\,36)\,A$

    (e) $I_{Z5} = (0.021\,697 + j0.135\,63)\,A$

    (f) $I_{Z6} = (-0.376\,14 - j0.322\,36)\,A$

2. (a) $V_{RMS} = 6.8159\,V$

    (b) $V_{ARV} = 6.2073\,V$

3. $Z_{eq} = (3.75 + j3.75)\,\Omega$

Universidad Autónoma de Coahuila
Facultad de Ingeniería Mecánica y Eléctrica
Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	4/10/2016
Exam / Homework	Homework 3: Nodal and Mesh analysis	Registration #	*14629184*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*JOSE WALDO QUINTANA ARANDA*		

Answers

1. (a) $I_{Z1} = (0.093\,331 - \mathrm{j}0.236\,54)\,\mathrm{A}$

    (b) $I_{Z2} = (-0.155\,55 + \mathrm{j}0.394\,23)\,\mathrm{A}$

    (c) $I_{Z3} = (0.489\,31 + \mathrm{j}0.010\,821)\,\mathrm{A}$

    (d) $I_{Z4} = (0.295\,67 + \mathrm{j}0.116\,66)\,\mathrm{A}$

    (e) $I_{Z5} = (0.131\,41 + \mathrm{j}0.051\,85)\,\mathrm{A}$

    (f) $I_{Z6} = (-0.489\,31 - \mathrm{j}0.010\,821)\,\mathrm{A}$

2. (a) $V_{RMS} = 6.8159\,\mathrm{V}$

    (b) $V_{ARV} = 6.2073\,\mathrm{V}$

3. $Z_{eq} = (1.5 + \mathrm{j}6.75)\,\Omega$