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

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12127844*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*JUAN MIGUEL BARRIENTOS GARCIA*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{2, 2, 7, 3, 3, 4, 4, 9, 5, 3, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 2x(k) - x(k-1) - \frac{1}{6}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{3}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 8z + 3}{9z^2 + 2z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.2z^3 + 0.07z^2 + 0.3z - 0.003$$

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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12132791*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*ISRAEL GONZALEZ*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{6, 4, 9, 6, 8, 8, 9, 7, 2, 4, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 8x(k) - x(k-1) - \frac{1}{2}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{4}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 2z + 2}{8z^2 + 5z + 7}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.09z^2 + 0.6z - 0.008$$

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Subject	Digital control		Group	9A
Degree	Electrical engineering		Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)		Registration #	*10062268*
Professor's name	Dr. Suresh Kumar Gadi		Marks Obtained	_____ /10
Student's name	*JULIO ALEJANDRO MARIN GARCIA*			

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{6, 4, 6, 2, 7, 9, 9, 8, 8, 5, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 9x(k) - x(k-1) - \frac{1}{5}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{5}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 5z + 7}{6z^2 + 9z + 7}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.06z^2 + 0.2z - 0.007$$

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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	**98017052**
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	**LUIZ EDUARDO**		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{2, 2, 8, 9, 2, 3, 6, 5, 4, 3, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 9x(k) - x(k-1) - \frac{1}{6}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{3}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 8z + 4}{8z^2 + 2z + 7}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.2z^3 + 0.08z^2 + 0.9z - 0.002$$

Universidad Autónoma de Coahuila
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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12125213*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*EMMANUEL ALEJANDRO*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{4, 2, 2, 9, 9, 4, 3, 8, 9, 8, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 6x(k) - x(k-1) - \frac{1}{5}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{8}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 7z + 7}{2z^2 + 9z + 3}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.2z^3 + 0.02z^2 + 0.9z - 0.009$$

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Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12146394*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ / 10
Student's name	*JOSELY ROSALES*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{2, 4, 5, 5, 8, 4, 5, 8, 8, 4, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 3x(k) - x(k-1) - \frac{1}{4}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{4}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 5z + 6}{4z^2 + 6z + 7}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.05z^2 + 0.5z - 0.008$$

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Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12146385*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*RODRIGUEZ PEREZ RODOLFO*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{7, 3, 4, 4, 5, 4, 5, 8, 5, 6, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 5x(k) - x(k-1) - \frac{1}{5}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{6}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 3z + 3}{5z^2 + 5z + 9}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.3z^3 + 0.04z^2 + 0.4z - 0.005$$

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*10056986*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*ARTURO CORDERO ROBLES*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{4, 2, 5, 2, 6, 9, 8, 8, 7, 8, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 4x(k) - x(k-1) - \frac{1}{8}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{8}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 6z + 9}{5z^2 + 4z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.2z^3 + 0.05z^2 + 0.2z - 0.006$$

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12157333*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*EDGAR RICARDO CHAIREZ VILLARRIAL*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{7, 6, 9, 6, 7, 8, 9, 2, 2, 8, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 6x(k) - x(k-1) - \frac{1}{8}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{8}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 9z + 7}{7z^2 + 7z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.6z^3 + 0.09z^2 + 0.6z - 0.007$$

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Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*12142724*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*ALLISON DANIELA MACIAS HERNANDEZ*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{8, 4, 6, 7, 7, 5, 7, 4, 3, 7, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 5x(k) - x(k-1) - \frac{1}{8}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{7}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 9z + 5}{4z^2 + 4z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.06z^2 + 0.7z - 0.007$$

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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*10068360*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*KIM EDUARDO SANCHEZ REYES*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{5, 4, 9, 3, 4, 2, 5, 7, 2, 6, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 4x(k) - x(k-1) - \frac{1}{4}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{6}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 9z + 9}{5z^2 + 4z + 6}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.09z^2 + 0.3z - 0.004$$

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

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*11288180*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*JORGE ANTONIO MOLINA RAMIREZ*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{5, 4, 7, 6, 7, 4, 5, 2, 4, 9, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 7x(k) - x(k-1) - \frac{1}{5}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{9}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 9z + 6}{3z^2 + 3z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.4z^3 + 0.07z^2 + 0.6z - 0.007$$

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Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*10053330*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*JOSE FERNANDO AGUILAR COLORADO*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{2, 7, 5, 7, 2, 5, 4, 5, 4, 6, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 7x(k) - x(k-1) - \frac{1}{2}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{6}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 2z + 5}{6z^2 + 2z + 5}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.7z^3 + 0.05z^2 + 0.7z - 0.002$$

Universidad Autónoma de Coahuila
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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*10073388*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*AXEL JAVIER RODRIGUEZ MARIN*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{8, 5, 9, 8, 3, 8, 2, 8, 3, 3, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 9x(k) - x(k-1) - \frac{1}{9}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{3}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 7z + 3}{3z^2 + 9z + 9}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.5z^3 + 0.09z^2 + 0.8z - 0.003$$

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Universidad Autónoma de Coahuila
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Unidad Torreón

Subject	Digital control	Group	9A
Degree	Electrical engineering	Due for	09/12/2016
Exam / Homework	Exam (Extraordinary)	Registration #	*6052185*
Professor's name	Dr. Suresh Kumar Gadi	Marks Obtained	_____ /10
Student's name	*ROGELIO CASTILLO REYES*		

Instructions

1. In the calculations, the student should maintain at least a precision of 3 decimal places with a correct rounding. (20% of the marks obtained will be reduced)

Questions

1. Find the Z-transform of the function $u(k) = \{9, 8, 8, 5, 2, 4, 5, 2, 2, 6, 0, 0, 0\}$. (2 points)

2. Apply Z-transform to the following equation. (2 points)

$$y(k) = 3x(k) - x(k-1) - \frac{1}{9}y(k-1)$$

3. Find the inverse Z-transform of the following function. (2 points)

$$F(z) = \frac{6}{1 - z^{-1}}$$

4. Draw block diagram for the following transfer function. (2 points)

$$\frac{y(z)}{x(z)} = \frac{z^2 + 3z + 5}{3z^2 + 3z + 8}$$

5. Determine the stability of the following system with the help of Jury's test. (2 points)

$$F(z) = z^4 - 1.8z^3 + 0.08z^2 + 0.5z - 0.002$$