



# Universidad Autónoma de Coahuila

## Facultad de Ingeniería Mecánica y Eléctrica

### Unidad Torreón

|                  |                                      |                |            |
|------------------|--------------------------------------|----------------|------------|
| Subject          | Digital control                      | Group          | 9A         |
| Degree           | Electrical engineering               | Due for        | 07/09/2016 |
| Exam / Homework  | Homework 2: Z-Transform              | Registration # | 12127844   |
| Professor's name | Suresh Kumar Gadi                    | Marks Obtained | ____ / 10  |
| Student's name   | <b>JUAN MIGUEL BARRIENTOS GARCIA</b> |                |            |

## Instructions

1. The student should submit the homework on or before the due date. (LATE SUBMISSION = 0 MARKS)
2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{9, 7, 7, 5, 3, 6, 7, 4, 7, 9, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|-------------------------|----------------|-----------------|
| Subject          | Digital control         | Group          | 9A              |
| Degree           | Electrical engineering  | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform | Registration # | <b>12132791</b> |
| Professor's name | Suresh Kumar Gadi       | Marks Obtained | ____ / 10       |
| Student's name   | <b>ISRAEL GONZALEZ</b>  |                |                 |

## Instructions

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2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{2, 3, 3, 9, 6, 4, 9, 2, 4, 2, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|--|----------------|-----------------|
| Subject          | Digital control                            | Group          | 9A              |
| Degree           | Electrical engineering                     | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform                    | Registration # | <b>10062268</b> |
| Professor's name | Suresh Kumar Gadi                          | Marks Obtained | ____ / 10       |
| Student's name   | <b><i>JULIO ALEJANDRO MARIN GARCIA</i></b> |                |                 |

## Instructions

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2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{7, 5, 2, 6, 6, 6, 7, 4, 5, 9, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|-------------------------|----------------|-----------------|
| Subject          | Digital control         | Group          | 9A              |
| Degree           | Electrical engineering  | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform | Registration # | <b>98017052</b> |
| Professor's name | Suresh Kumar Gadi       | Marks Obtained | ____ / 10       |
| Student's name   | <b>LUIZ EDUARDO</b>     |                |                 |

## Instructions

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2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{9, 8, 6, 8, 4, 6, 9, 5, 5, 5, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|---------------------------|----------------|-----------------|
| Subject          | Digital control           | Group          | 9A              |
| Degree           | Electrical engineering    | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform   | Registration # | <b>12125213</b> |
| Professor's name | Suresh Kumar Gadi         | Marks Obtained | ____ / 10       |
| Student's name   | <b>EMMANUEL ALEJANDRO</b> |                |                 |

## Instructions

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2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{5, 9, 6, 2, 3, 9, 4, 8, 7, 4, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|-------------------------|----------------|-----------------|
| Subject          | Digital control         | Group          | 9A              |
| Degree           | Electrical engineering  | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform | Registration # | <b>12146394</b> |
| Professor's name | Suresh Kumar Gadi       | Marks Obtained | ____ / 10       |
| Student's name   | <b>JOSELY ROSALES</b>   |                |                 |

## Instructions

1. The student should submit the homework on or before the due date. (LATE SUBMISSION = 0 MARKS)
2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{4, 6, 6, 9, 7, 2, 9, 2, 3, 9, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|--------------------------------|----------------|-----------------|
| Subject          | Digital control                | Group          | 9A              |
| Degree           | Electrical engineering         | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform        | Registration # | <b>12146385</b> |
| Professor's name | Suresh Kumar Gadi              | Marks Obtained | ____ / 10       |
| Student's name   | <b>RODRIGUEZ PEREZ RODOLFO</b> |                |                 |

## Instructions

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2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{7, 5, 7, 9, 7, 7, 5, 6, 6, 5, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|------------------------------|----------------|-----------------|
| Subject          | Digital control              | Group          | 9A              |
| Degree           | Electrical engineering       | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform      | Registration # | <b>10056986</b> |
| Professor's name | Suresh Kumar Gadi            | Marks Obtained | ____ / 10       |
| Student's name   | <b>ARTURO CORDERO ROBLES</b> |                |                 |

## Instructions

1. The student should submit the homework on or before the due date. (LATE SUBMISSION = 0 MARKS)
2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{9, 8, 7, 5, 5, 6, 4, 8, 9, 8, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)





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|------------------|---|----------------|-----------------|
| Subject          | Digital control                         | Group          | 9A              |
| Degree           | Electrical engineering                  | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform                 | Registration # | <b>12157333</b> |
| Professor's name | Suresh Kumar Gadi                       | Marks Obtained | ____ / 10       |
| Student's name   | <b>EDGAR RICARDO CHAIREZ VILLARRIAL</b> |                |                 |

## Instructions

1. The student should submit the homework on or before the due date. (LATE SUBMISSION = 0 MARKS)
2. Answers should be hand written on the A4 or Letter size bond papers. (20% of the marks obtained will be reduced)
3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{5, 7, 9, 6, 6, 4, 7, 8, 7, 8, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|---|----------------|------------|
| Subject          | Digital control                         | Group          | 9A         |
| Degree           | Electrical engineering                  | Due for        | 07/09/2016 |
| Exam / Homework  | Homework 2: Z-Transform                 | Registration # | 12142724   |
| Professor's name | Suresh Kumar Gadi                       | Marks Obtained | ____ / 10  |
| Student's name   | <b>ALLISON DANIELA MACIAS HERNANDEZ</b> |                |            |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{6, 6, 8, 3, 2, 7, 3, 9, 8, 8, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|----------------------------------|----------------|-----------------|
| Subject          | Digital control                  | Group          | 9A              |
| Degree           | Electrical engineering           | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform          | Registration # | <b>10068360</b> |
| Professor's name | Suresh Kumar Gadi                | Marks Obtained | ____ / 10       |
| Student's name   | <b>KIM EDUARDO SANCHEZ REYES</b> |                |                 |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{4, 4, 3, 5, 5, 5, 7, 9, 5, 9, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|-------------------------------------|----------------|-----------------|
| Subject          | Digital control                     | Group          | 9A              |
| Degree           | Electrical engineering              | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform             | Registration # | <b>11288180</b> |
| Professor's name | Suresh Kumar Gadi                   | Marks Obtained | ____ / 10       |
| Student's name   | <b>JORGE ANTONIO MOLINA RAMIREZ</b> |                |                 |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{7, 5, 6, 2, 4, 7, 5, 8, 2, 3, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|---------------------------------------|----------------|-----------------|
| Subject          | Digital control                       | Group          | 9A              |
| Degree           | Electrical engineering                | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform               | Registration # | <b>10053330</b> |
| Professor's name | Suresh Kumar Gadi                     | Marks Obtained | ____ / 10       |
| Student's name   | <b>JOSE FERNANDO AGUILAR COLORADO</b> |                |                 |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{9, 7, 6, 5, 3, 6, 5, 9, 4, 5, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|------------------------------------|----------------|-----------------|
| Subject          | Digital control                    | Group          | 9A              |
| Degree           | Electrical engineering             | Due for        | 07/09/2016      |
| Exam / Homework  | Homework 2: Z-Transform            | Registration # | <b>10073388</b> |
| Professor's name | Suresh Kumar Gadi                  | Marks Obtained | ____ / 10       |
| Student's name   | <b>AXEL JAVIER RODRIGUEZ MARIN</b> |                |                 |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{6, 2, 9, 4, 4, 8, 9, 9, 7, 9, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)



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|------------------|-------------------------------|----------------|----------------|
| Subject          | Digital control               | Group          | 9A             |
| Degree           | Electrical engineering        | Due for        | 07/09/2016     |
| Exam / Homework  | Homework 2: Z-Transform       | Registration # | <b>6052185</b> |
| Professor's name | Suresh Kumar Gadi             | Marks Obtained | ____ / 10      |
| Student's name   | <b>ROGELIO CASTILLO REYES</b> |                |                |

## Instructions

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3. The student should print his/her corresponding question-paper and staple it along with his/her answer sheets. (20% of the marks obtained will be reduced)
4. 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. Define Z-transform. (2pt)
2. Find the Z-transform of the function  $u(k) = \{3, 9, 9, 8, 2, 9, 9, 8, 7, 8, 0, 0, 0\}$ . (4 points)
3. Find the Z-transform of the unit step function. (4 points)