**Part 1**: **Selected Response**. Answer the following questions by placing the best answer on the line provided. **[9 marks]**

|  |  |
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| 1. | What are the Non-permissible values for the following expression: |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 2. | What is the exact value of ? |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 3. | Simplify +sin |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 4. | Simplify  |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 5. | If , find  |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 6. | Simplify completely + |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 7. | Solve  |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 8. | Solve for *x*,  |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

|  |  |
| --- | --- |
| 9. | Solve for *x*, . |
| \_\_\_\_\_\_ | a)  |  | b) |  |
| c) |  | d) |  |

**Part 2**: **Constructed Response**. Answer all of the following questions. Full credit will only be awarded for complete solutions. Use EXACT answers unless otherwise stated. [21 marks total]

10. Simplify [3 marks]

11. Prove the following trigonometric identity [4 marks]

12. Prove the following trigonometric identity [3 marks].

13.Prove the following identity [3 marks].

14. Solve for [4 marks]

15. Solve for all values of in radians [4 marks]

***Math 3200 Information Sheet***

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