**MULTIVARIATE DATA ANALYSIS (*BIA 652)***

Spring 2017

Homework 6

**DICRIMINANT ANALYSIS**

Following the data about applicants to a Business school

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Admitted*** | |  | ***Waiting List*** | |
|  |  |  |  |  |
| **GPA** | **GMAT** |  | **GPA** | **GMAT** |
| 2.96 | 596 |  | 2.86 | 494 |
| 3.14 | 473 |  | 2.85 | 496 |
| 3.22 | 482 |  | 3.14 | 419 |
| 3.29 | 527 |  | 3.28 | 371 |
| 3.69 | 505 |  | 2.89 | 447 |
| 3.46 | 693 |  | 3.15 | 313 |
| 3.03 | 626 |  | 3.50 | 402 |
| 3.19 | 663 |  | 2.89 | 485 |
| 3.63 | 447 |  |  |  |
| 3.59 | 588 |  |  |  |
| 3.30 | 563 |  |  |  |
| 3.40 | 553 |  |  |  |

1. Do a scatter plot of GPA and GMAT and indicate Admitted and Waitlisted points with different color and symbol.
2. Determine the Discriminant function and cut off point.
3. What is the chance that an applicant with GPA of 3.21 and GMAT of 530 is admitted to the program?
4. What is the chance that an applicant with GPA of 3.26 and GMAT of 664 is waitlisted?
5. What is the chance that an applicant with GPA of 3.04 and GMAT of 446 is admitted to the program?
6. What is the chance that an applicant with GPA of 3.00 and GMAT of 509 is waitlisted?