## APPENDIX A

Raw scores of RPM and age of the sample, and the calculations of Analysis of Variance.

### Raw scores (RPM) of the sample.

| Sr. NO. | Group 1 $N_1=50$ | Group 2 $N_2=52$ | Group 3 $N_3=52$ | Group 4 $N_4=50$ |
|---|---|---|---|---|
| 1. | 56 | 50 | 43 | 20 |
| 2. | 54 | 38 | 49 | 21 |
| 3. | 53 | 47 | 48 | 44 |
| 4. | 54 | 53 | 47 | 50 |
| 5. | 43 | 51 | 54 | 57 |
| 6. | 54 | 52 | 46 | 49 |
| 7. | 50 | 31 | 49 | 24 |
| 8. | 41 | 47 | 46 | 47 |
| 9. | 52 | 42 | 40 | 11 |
| 10. | 52 | 50 | 41 | 50 |
| 11. | 55 | 38 | 47 | 37 |
| 12. | 43 | 42 | 40 | 55 |
| 13. | 40 | 49 | 40 | 49 |
| 14. | 34 | 52 | 41 | 54 |
| 15. | 43 | 47 | 52 | 45 |
| 16. | 53 | 17 | 48 | 46 |
| 17. | 43 | 48 | 46 | 47 |
| 18. | 52 | 42 | 49 | 40 |
| 19. | 51 | 44 | 44 | 37 |
| 20. | 50 | 54 | 47 | 50 |
| 21. | 51 | 46 | 47 | 49 |
| 22. | 34 | 49 | 51 | 30 |
| 23. | 50 | 53 | 45 | 10 |
| 24. | 51 | 51 | 34 | 15 |
| 25. | 13 | 46 | 51 | 47 |
| 26. | 47 | 50 | 49 | 12 |
| 27. | 15 | 49 | 50 | 51 |
| 28. | 9 | 51 | 47 | 50 |
| 29. | 30 | 34 | 51 | 34 |
| 30. | 49 | 45 | 53 | 51 |
| 31. | 49 | 51 | 49 | 50 |
| 32. | 37 | 47 | 46 | 51 |
| 33. | 40 | 48 | 53 | 52 |
| 34. | 47 | 42 | 46 | 43 |
| 35. | 45 | 49 | 43 | 53 |
| 36. | 46 | 46 | 48 | 43 |
| 37. | 54 | 48 | 17 | 34 |
| 38. | 49 | 51 | 47 | 40 |
| 39. | 55 | 41 | 52 | 43 |
| 40. | 37 | 40 | 48 | 55 |
| 41. | 50 | 39 | 43 | 52 |

| Sr. No. | Group 1 $N_1 = 50$ | Group 2 $N_2 = 52$ | Group 3 $N_3 = 52$ | Group 4 $N_4 = 50$ |
|---|---|---|---|---|
| 42. | 11 | 47 | 37 | 53 |
| 43. | 47 | 41 | 50 | 42 |
| 44. | 24 | 40 | 43 | 50 |
| 45. | 19 | 45 | 47 | 54 |
| 46. | 57 | 49 | 31 | 43 |
| 47. | 49 | 46 | 52 | 54 |
| 48. | 45 | 54 | 52 | 53 |
| 49. | 21 | 47 | 53 | 54 |
| 50. | 21 | 48 | 47 | 55 |
| 51. | .. | 50 | 39 | .. |
| 52. | .. | 42 | 49 | .. |
| Total | 2155 | 2379 | 2387 | 2156 |

## Calculation of sum of squares

Step 1    Correction Term    $= \dfrac{(9077)^2}{204} = 403882$

Step 2    Total sum of squares $= 424197 - 403882 = 20315$

Step 3    Between Mean sum of squares $= \dfrac{(2155)^2}{50} + \dfrac{(2379)^2}{52} + \dfrac{(2387)^2}{52}$

$$+ \dfrac{(2156)^2}{50} - 403882$$

$$= 376.95$$

Step 4    Within sum of squares

$= $ Total SS $-$ Between SS

$= 20315 - 376.95$

$= 19938.05$

## Age (in years) of the sample

| Sr. No. | Group 1 $N_1=50$ | Group 2 $N_2=52$ | Group 3 $N_3=52$ | Group 4 $N_4=50$ |
|---|---|---|---|---|
| 1. | 14 | 16.2 | 15.5 | 15.4 |
| 2. | 13.2 | 15.9 | 13.9 | 15.8 |
| 3. | 13.1 | 16.3 | 15.5 | 16.3 |
| 4. | 14.5 | 15.9 | 14.3 | 14.9 |
| 5. | 15.3 | 16.7 | 14.3 | 15.9 |
| 6. | 14.3 | 16.9 | 15.1 | 14.7 |
| 7. | 14 | 13.9 | 15.8 | 15 |
| 8. | 15 | 15 | 14.4 | 15.4 |
| 9. | 14.3 | 15.6 | 15 | 14.1 |
| 10. | 14.6 | 16.7 | 14.4 | 13.9 |
| 11. | 14 | 15.1 | 13.9 | 15.6 |
| 12. | 15.8 | 14.1 | 14.3 | 15 |
| 13. | 15.9 | 14.4 | 14 | 14 |
| 14. | 14.4 | 15.3 | 16.3 | 14.5 |
| 15. | 13.6 | 15.4 | 15 | 13.5 |
| 16. | 14.9 | 14.1 | 14.3 | 15.9 |
| 17. | 14.5 | 15.1 | 14 | 14 |
| 18. | 14.2 | 15.2 | 13.9 | 16.1 |
| 19. | 13.3 | 15.1 | 15 | 13.6 |
| 20. | 15.3 | 14 | 15.6 | 14 |
| 21. | 14.9 | 13.7 | 14.4 | 15.9 |
| 22. | 13.9 | 13.8 | 14.3 | 16.1 |
| 23. | 13.8 | 14.6 | 14.1 | 14.3 |
| 24. | 15.3 | 13.9 | 15 | 15.3 |
| 25. | 15.4 | 14.1 | 15.1 | 15.4 |
| 26. | 14.4 | 15.5 | 13.4 | 13.4 |
| 27. | 15 | 13.6 | 14.9 | 13.7 |
| 28. | 15 | 13.4 | 15.7 | 15 |
| 29. | 15 | 15.9 | 14.4 | 15.9 |
| 30. | 15.4 | 14.2 | 13.7 | 14.9 |
| 31. | 16 | 14.9 | 14.4 | 16 |
| 32. | 16.9 | 15.5 | 15.6 | 14.4 |
| 33. | 14.9 | 13.7 | 13.8 | 14.3 |
| 34. | 15.2 | 14.6 | 14.1 | 15.6 |
| 35. | 15.7 | 14.9 | 13.9 | 14.5 |
| 36. | 14.8 | 15 | 13.9 | 15.5 |
| 37. | 13.1 | 15.9 | 15.9 | 13.6 |
| 38. | 13.9 | 14.8 | 16.5 | 14.8 |
| 39. | 14.9 | 14.4 | 14.3 | 13.9 |
| 40. | 13.9 | 14.7 | 13.5 | 14.5 |
| 41. | 13.9 | 15.1 | 13.9 | 14.3 |
| 42. | 14.2 | 14.9 | 14.2 | 14 |

| Sr. No. | Group 1 $N_1=50$ | Group 2 $N_2=52$ | Group 3 $N_3=52$ | Group 4 $N_4=50$ |
|---|---|---|---|---|
| 43. | 15.9 | 15 | 13.9 | 14.9 |
| 44. | 14.6 | 14.9 | 14.1 | 13.9 |
| 45. | 14 | 13.6 | 15.8 | 15 |
| 46. | 14.4 | 13.9 | 13.6 | 13.4 |
| 47. | 15.3 | 14.9 | 15 | 15.9 |
| 48. | 14.7 | 15.9 | 14.7 | 13.9 |
| 49. | 14.4 | 14.8 | 13.8 | 14.4 |
| 50. | 16.6 | 15.5 | 14.5 | 15.5 |
| 51. | .. | 14.1 | 15.4 | .. |
| 52. | .. | 14.1 | 15.9 | .. |
| Total | 733.6 | 775.7 | 760.2 | 739.8 |

## Calculation of sum of squares

Step 1   Correction Term   $= \dfrac{(3009.3)^2}{204} = 44391.6$

Step 2   Total sum of squares $= 44536.7 - 44391.6$

$= 145.1$

Step 3   Between sum of squares $= \dfrac{(733.6)^2}{50} + \dfrac{(775.7)^2}{52} + \dfrac{(760.2)^2}{52}$

$\dfrac{(739.8)^2}{50} - 44391.6$

$= 2.75$

Step 4   Within sum of squares $=$ Total SS $-$ Between SS

$= 145.1 - 2.75$

$= 142.35$