**Question 1**(1 point)

Using the elbow criterion, there are this many meaningful principal components when doing a PCA on the movie experience data

Question 1 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | 3 | |
|  | |  |  | | --- | --- | | b) | 10 | |
|  | |  |  | | --- | --- | | c) | 1 | |
|  | |  |  | | --- | --- | | d) | 2 | |
|  | |  |  | | --- | --- | | e) | 4 | |

**Question 2**(1 point)

Using the Kaiser criterion, there are this many meaningful principal components when doing a PCA on the sensation seeking data

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | 4 | |
|  | |  |  | | --- | --- | | b) | 1 | |
|  | |  |  | | --- | --- | | c) | 2 | |
|  | |  |  | | --- | --- | | d) | 6 | |
|  | |  |  | | --- | --- | | e) | 5 | |

**Question 3**(1 point)

When using the scores on the first principal component of sensation seeking to predict discretized ratings of the movie "Saw (2004)", assuming alpha = 0.05

Question 3 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | the absolute value of beta1 is 0.33, and this coefficient is significant | |
|  | |  |  | | --- | --- | | b) | the absolute value of beta1 is 0.17, and this coefficient is significant. | |
|  | |  |  | | --- | --- | | c) | the absolute value of beta1 is 0.17, and this coefficient is not significant. | |
|  | |  |  | | --- | --- | | d) | the absolute value of beta1 is 0.08, and this coefficient is significant. | |
|  | |  |  | | --- | --- | | e) | the absolute value of beta1 is 0.08, and this coefficient is not significant. | |

**Question 4**(1 point)

Using the Kaiser criterion, there are this many meaningful principal components when doing a PCA on the personality data

Question 4 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | 4 | |
|  | |  |  | | --- | --- | | b) | 3 | |
|  | |  |  | | --- | --- | | c) | 1 | |
|  | |  |  | | --- | --- | | d) | 2 | |
|  | |  |  | | --- | --- | | e) | 9 | |
|  | |  |  | | --- | --- | | f) | 8 | |

**Question 5**(1 point)

When inspecting the loadings matrix, the 2nd principal component of movie experience is probably best described as

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Emotional instability | |
|  | |  |  | | --- | --- | | b) | Sheltered upbringing | |
|  | |  |  | | --- | --- | | c) | Cognitive problems | |
|  | |  |  | | --- | --- | | d) | Carefree existence | |
|  | |  |  | | --- | --- | | e) | Like being scared | |