Use the following data to answer questions 1 - 6: 
2 3 3 3 5 5 7 8 9 9 12

1. Mean
2. Median
3. Mode
4. Midrange
5. Range
6. Standard deviation

7. Find the median (only) of the following data: 
8 9 11 15 18 18 21 22

8. Professor Stat uses a weighted average for his grades as follows:
   2 tests each count 15%
   1 midterm counts 20%
   1 project counts 35%
   3 quizzes each count 5%

   If Alicia makes 85 and 92 on her tests, 88 on her midterm, 92 on her project
   and her quiz scores were 95, 93, and 97, what is her average?

9 and 10. (Counts as two questions) Use the following data to complete the frequency chart:
1 1 2 2 3 3 4 4 5 6 6 6 7 7 7 7 7 9 9 10 10 10 11

Class    Frequency
1 - 3    

Use the following frequency table to answer questions 11 - 13.

The following table reflects the number of library books students checked out during National Library week.

<table>
<thead>
<tr>
<th>Number of Books</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

11. Determine the approximate mean number of books checked out, rounded to the nearest hundredth (two decimal places).

12. Determine the modal class of the data.

13. Determine the median of the data.

Use the following frequency table to answer questions 14 - 17.

<table>
<thead>
<tr>
<th>Class</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.11</td>
</tr>
<tr>
<td>2</td>
<td>.13</td>
</tr>
<tr>
<td>3</td>
<td>.17</td>
</tr>
<tr>
<td>4</td>
<td>.42</td>
</tr>
<tr>
<td>5</td>
<td>.17</td>
</tr>
</tbody>
</table>

14. Mode

15. Median

16. Mean

17. Midrange
Use the following frequency table for questions 18 – 22.

<table>
<thead>
<tr>
<th>Class</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 5</td>
<td>20</td>
</tr>
<tr>
<td>6 - 10</td>
<td>15</td>
</tr>
<tr>
<td>11 - 15</td>
<td>11</td>
</tr>
<tr>
<td>16 - 20</td>
<td>14</td>
</tr>
</tbody>
</table>

18. Select the most appropriate histogram
   - A.  
   - B.  
   - C.  
   - D.  

19. Select the number of degrees required in the section of the circle graph for the class 11-15.
   - A. 15  
   - B. 66  
   - C. 72  
   - D. 90

20. Select the class size.
   - A. 4  
   - B. 5  
   - C. 20 
   - D. 21

21. Select the class mark for the first class.
   - A. 1  
   - B. 3  
   - C. 4  
   - D. 5

22. If a next class was added, what would be the upper limit?
   - A. 21  
   - B. 23  
   - C. 24  
   - D. 25
23 and 24. Select the type of sampling that is used in the data collection.

23. A survey is to be made concerning the plans of college students after graduation by sampling all college students in the New England states.

a. Random  
b. Systematic  
c. Cluster  
d. Convenience

24. To find out which of their editorials are read a newspaper surveys every fifth subscriber in an alphabetical listing of all subscribers.

a. Random  
b. Systematic  
c. Cluster  
d. Convenience

25. Tell briefly why the following would not be representative of unbiased sampling: In order to determine which candidate is leading in a mayoral race in a certain city, people on downtown street corner are surveyed.

Answers: 1. 6  2. 5  3. 3  4. 7  5. 10  6. 3.22  7. 16.5  8. 90.6  9-10. 6, 6, 7, 4  11. 2.59  12. 2  13. 2  14. 4  15. 4  16. 3.41  17. 3  18. a  19. b  20. b  21. b  22. d  23. c  24. b  25. ---