1. What is meant by educational research? Give the differences between qualitative and quantitative types of research. \( (8+12=20) \)

2. Give the concept of sampling in research. What are the various types of sampling designs used in educational research? \( (8+12=20) \)

3. (a) Give the meaning and uses of Mean. \( (5+5=10) \)

   (b) Calculate the mean from the following frequency table: \( (10) \)

<table>
<thead>
<tr>
<th>Scores</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-34</td>
<td>2</td>
</tr>
<tr>
<td>25-29</td>
<td>3</td>
</tr>
<tr>
<td>20-24</td>
<td>4</td>
</tr>
<tr>
<td>15-19</td>
<td>5</td>
</tr>
<tr>
<td>10-14</td>
<td>3</td>
</tr>
<tr>
<td>5-9</td>
<td>3</td>
</tr>
</tbody>
</table>

   \[ N = 20 \]

4. Write short notes on any two of the following: \( (2\times10=20) \)

   (a) Characteristics of a good hypothesis.

   (b) Tools of data collection.

   (c) Principles of test construction and standardization.

   (d) Need and uses of graphical presentation of data.
PART B

5. Bring out the meaning, nature and scope of educational objectives. (20)

6. Discuss Bloom’s cognitive, affective and psychomotor aspects of educational objectives. (20)

7. Define Counselling. Explain the various steps involved in counselling process. (8+12=20)

8. Write short notes on any two of the following: (2×10=20)
   (a) Programmed learning.
   (b) Vocational guidance.
   (c) Educational planning.
   (d) Principles of curriculum construction.

* * * * * * *