1(a) With the aid of a block diagram, describe the internal parts of a basic GSM phone.

(b) Assume that you are required to assemble basic GSM phone. List the parts you will need to purchase in the format shown below.

<table>
<thead>
<tr>
<th>PART NAME</th>
<th>FUNCTION</th>
<th>MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carry out Internet research.

2(a) (i) With the aid of a block diagram, name and describe the functions of two types of chipsets used in a personal computer.

(ii) Why is it necessary to have chipsets in a smart phone?

(b) (i) With the aid of a block diagram describe the parts of a smart phone, clearly indicating the units contained in the chipset.

(ii) Assume that you are required to assemble basic GSM phone. List the parts you will need to purchase in the format shown below.

<table>
<thead>
<tr>
<th>PART NAME</th>
<th>FUNCTION</th>
<th>MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carry out Internet research.

USEFUL REFERENCES

General
All About Motherboards

GSM Phones
1. Parts of a Mobile Cell Phone and Their Function (Big Parts)
2. Small Parts - Electronic Components of Mobile Phone and Their Function
3. Basics of mobile phone internal modules
4. Speech processing through GSM physical layer

Smart Phones
1. Guide to smartphone hardware – processors
2. Guide to smartphone hardware-memory
3. Guide to smartphone hardware-displays
4. Guide to smartphone hardware-Graphics
5. A comparative Study of Lithium-Ion Batteries