(3) 1. Name the following alkane, and circle all the carbon atoms in the structure which are tertiary carbon atoms.

1 pt circled atoms, 0.3 pts each

1-chloro-4-ethyl-2,6-dimethyloctane

2 pts. 0.5 if octane based and nothing else correct.
1 pt if all correct but order of groups is wrong.

(3) 2. Name the following alkane, and circle all the carbon atoms in the structure which are primary carbon atoms.

1 pt circled atoms, 0.2 pts each

3-bromo-6-isopropyl-7-methylnonane

2 pts. 0.5 if nonane based and nothing else correct.
1 pt if all correct but order of groups is wrong.

(2) 3. Name the following alkyl groups.

0.5 pts each

-t-butyl (or tert-butyl)

-isobutyl

-propyl (or n-propyl)

-isopropyl

(2) 4. Draw both condensed (showing all H atoms) and line (showing no H atoms) structures for the following compound in the box to the right.

2-bromo-3-isopropyl-4-methylhexane