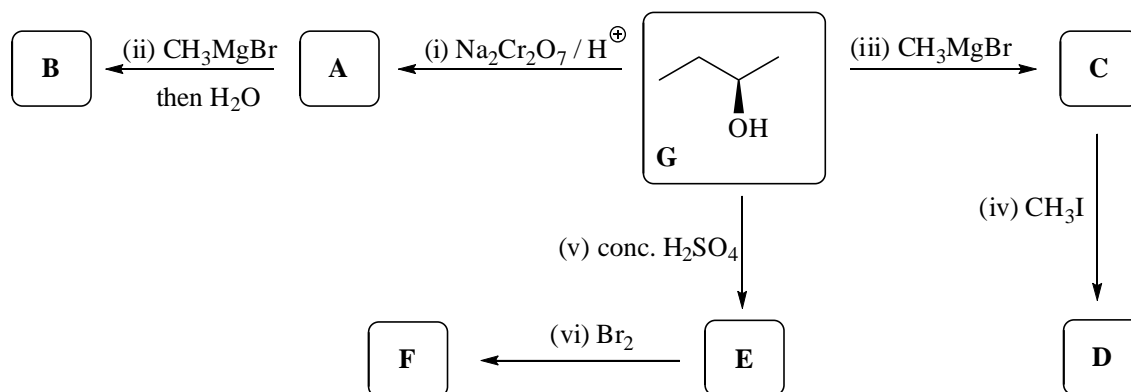


**Marks
10**

- Consider the following reaction sequences beginning with the alcohol **G**.



What is the systematic name for **G**?

(R)-2-butanol

Suggest structures for compounds **A – F** in the reaction sequences above.

| | | | | | |
|----------|--|----------|--|----------|--|
| A | | B | | C | |
| D | | E | | F | |

What type of reaction is occurring at each of the following steps?

Step (iii)

acid/base

Step (iv)

S_N2 (nucleophilic substitution)

Step (v)

elimination

Step (vi)

electrophilic addition