4. Best Search (Assume test when insert)

(a) G1

(b) S →
```
    S
    |
    A
```
→
```
    S
    |
    A
    |
    D
```
→
```
    S
    |
    A
    |
    D
    |
    G1
```
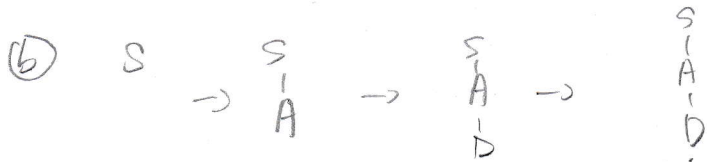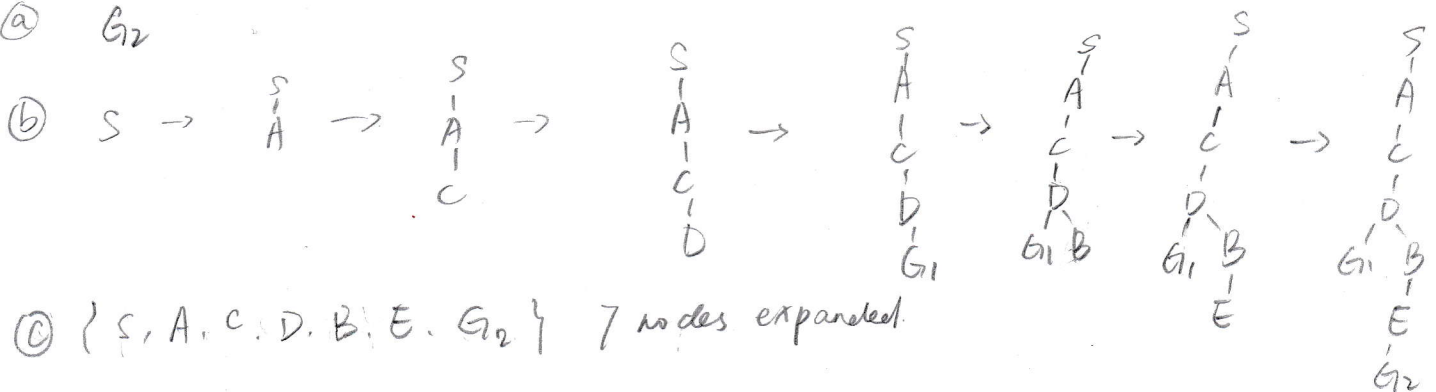
(c) { S, A, D }   3 nodes expanded.

5. A* (Assume algorithm stops when expand the goal node)

(a) G2

(b) S →
```
    S
    |
    A
```
→
```
    S
    |
    A
    |
    C
```
→
```
    S
    |
    A
    |
    C
    |
    D
```
→
```
    S
    |
    A
    |
    C
    |
    D
    |
    G1
```
→
```
    S
    |
    A
    |
    C
    |
    D
   / \
  G1  B
```
→
```
    S
    |
    A
    |
    C
    |
    D
   / \
  G1  B
      |
      E
```
→
```
    S
    |
    A
    |
    C
    |
    D
   / \
  G1  B
      |
      E
      |
      G2
```

(c) { S, A, C, D, B, E, G2 }   7 nodes expanded.