§4.

4.1. a) Không gian mẫu có dạng

$$\Omega = \{ SSS, SSN, SNS, NSS, SNN, NSN, NNS, NNN \}.$$

b) $A = \{ SSS, SNS, SSN, SNN \}$;

$B = \{ SSS, NNN \}$;

$C = \{ SSN, SNS, NSS \}$;

$D = \overline{\{ NNN \}} = \Omega \setminus \{ NNN \}$.

4.2. a) $\Omega = \{S1, S2, S3, S4, S5, S6, N1, N2, N3, N4, N5, N6\}$.

b) $A = \{S2, S4, S6\}$;

$B = \{N1, N3, N5\}$;

$C = \{S6, N6\}$.

4.3. a) $\Omega = \{(i, j, k) \mid 1 \le i, j, k \le 6\}$, gồm các chỉnh hợp chập 3 của 6 (số chấm).

b) $A = \{(1, 1, 4), (1, 4, 1), (4, 1, 1), (1, 2, 3), (2, 1, 3), (1, 3, 2), (2, 3, 1), (3, 1, 2), (3, 2, 1), (2, 2, 2)\}$;

$B = \{(2, 1, 1), (3, 1, 2), (3, 2, 1), (4, 1, 3), (4, 3, 1), (4, 2, 2), (5, 1, 4), (5, 4, 1), (5, 2, 3), (5, 3, 2), (6, 1, 5), (6, 5, 1), (6, 2, 4), (6, 4, 2), (6, 3, 3)\}$.

4.4. a) Theo kí hiệu thì không gian mẫu là

$$\Omega = \left\{ A_1A_2A_3, \overline{A}_1A_2A_3, A_1\overline{A}_2A_3, A_1A_2\overline{A}_3, A_1\overline{A}_2\overline{A}_3, \overline{A}_1A_2\overline{A}_3, \overline{A}_1\overline{A}_2A_3, \overline{A}_1\overline{A}_2\overline{A}_3 \right\}.$$

b) $A = \left\{ A_1\overline{A}_2\overline{A}_3, \overline{A}_1A_2\overline{A}_3, \overline{A}_1\overline{A}_2A_3 \right\}$,

$$B = \left\{\overline{A}_1 A_2 A_3, A_1 \overline{A}_2 A_3, A_1 A_2 \overline{A}_3\right\},$$

$$C = B,$$

$$D = A \cup B \cup \left\{A_1 A_2 A_3\right\},$$

$$E = \left\{\overline{A}_1 \overline{A}_2 \overline{A}_3\right\} \cup A.$$