

$$4(1) A \cap (\overline{B \cup C})$$

$$(2) A \cap B \cap \overline{C}$$

$$(3) A \cap B \cap C$$

$$(4) \overline{A \cup B \cup C}$$

$$(5) \overline{A \cup B \cup C}$$

$$(6) (\overline{A \cup B \cup C}) \cup ((\overline{A \cup C}) \cup B) \cup (\overline{A \cup C}) \cup B \cup (\overline{A} \cap \overline{B} \cap \overline{C})$$

$$(7) A \cap B \cap C$$

$$(8) (A \cap B) \cup (B \cap C) \cup (A \cap C)$$

$$5(1) A_1 \vee A_2$$

$$(2) A_1 \cap \overline{A_2} \cap \overline{A_3}$$

$$(3) A_1 \cap A_2 \cap A_3$$

$$(4) \overline{A_1} \vee \overline{A_2} \vee A_3$$

$$(5) (A_1 \cap A_2 \cap \overline{A_3}) \cup (\overline{A_1} \cap A_2 \cap A_3) \cup (A_1 \cap \overline{A_2} \cap A_3)$$

$$6(1) A = A_1 \vee A_2$$

$$(2) B = (A_1 \cap A_2 \cap A_3) \cup (A_1 \cap \overline{A_2} \cap A_3) \cup (A_1 \cap A_2 \cap \overline{A_3})$$

$$(3) C = (A_1 \cap A_2) \cup (A_1 \cap A_3) \cup (A_2 \cap A_3)$$

$$(4) D = \overline{A_1} \cap \overline{A_2} \cap \overline{A_3}$$

$$7. (1) A = \left(\bigcap_{i=1}^{k-1} \overline{A_i} \right) \cap A_k$$

$$(2) B = \left(\bigcap_{i=1}^k \overline{A_i} \right) \cap \left(\bigcap_{i=1}^r A_i \right)$$

..... 实 验 报 告 实 验 日 期 年 月 日

..... 系 专业 2114 年级 学生 庄佳强 组别

2. (1) ~~第~~

$$P(A) = \frac{5}{7} \times \frac{5}{7} = \frac{25}{49}$$

(2)
$$P(B) = \frac{5}{7} \times \frac{2}{7} = \frac{10}{49}$$

(3)
$$P(C) = \left(\frac{5}{7} \times \frac{2}{7}\right) \times 2 = \frac{20}{49}$$

(4)
$$P(D) = \frac{5}{7}$$

3. (1)
$$P(A) = \frac{C_3^1}{C_6^2} = \frac{1}{5}$$

(2)
$$P(B) = \frac{C_2^1 C_4^1}{C_6^2} = \frac{2}{15}$$

~~10~~

9.
$$P(A) = \frac{C_2^1 C_3^2}{C_5^3} = \frac{3}{5}$$

$$P(B) = \frac{C_2^2 C_3^1}{C_5^3} = \frac{3}{10}$$

$$P(C) = \frac{C_3^1 C_2^2}{C_5^3} = \frac{9}{10}$$

2.4

1.
$$P(\bar{A}) = 1 - P(A) = 0.6$$

$$P(\bar{B}) = 1 - P(B) = 0.4$$

$$P(A \cup B) = P(A) + P(B) - P(AB) = 0.6$$

$$P(AB) = 0.6$$

$$P(\bar{B}A) = 0$$

$$P(\bar{A}B) = 0.4$$

$$P(\bar{A}\bar{B}) = 0.2$$

3.
$$P(A-B) = P(A) - P(AB) = 0$$

~~$$P(AB) = P(A \cup B) = P(A) + P(B) - P(AB)$$~~

$$P(AB) = 0.4$$

$$P(B-A) = P(B) - P(AB)$$

\therefore

$$P(A+B) = 0.1$$

$$P(B-A) = 0.3$$