期中复习题答案

选择题

DABCB AADBB ACBAD DBCBB BABCB

填空题

(1) -9

(2) 3

(3) $(-1)^n 3^{n-1}$

(4) $(1,0,0)^T$

(5) -11

(6) $(-1)^{n^2}\begin{pmatrix} 0 & |A|B^* \\ |B|A^* & 0 \end{pmatrix}$

(7) $(-1)^{\frac{n(n-1)}{2}}(\prod_{i=1}^{n}a_i+\sum_{j=1}^{n}(n+1-j)s_j), s_j=a_1\cdots a_{j-1}a_{j+1}\cdots a_n$

(8) 见书 P63

(9) $k^{n-1}(k+a_1+a_2+\cdots+a_n)$

(10) $\begin{pmatrix} 0 & 1/2 & 1/2 & 0 \\ 0 & 0 & 1/2 & -1/2 \\ 1/2 & 0 & -1/2 & 0 \\ 1/2 & -1/2 & -1/2 & 1/2 \end{pmatrix}$

(11) 略

(12) -1

(13) -2

(14) 3

(15) 3

(16) $L(\alpha_1,\alpha_2,\cdots,\alpha_n)$

(17) -1

(18) -1，-3，0

(19) $-\dfrac{8}{3}$

(20) $\dfrac{125}{2}$

(21) 100

(22) 36

(23) 略

(24) $\dfrac{9}{2}$

(25) $-\dfrac{1}{2}$