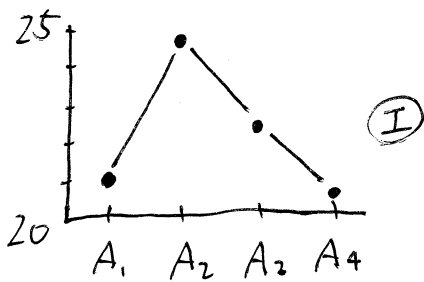


[問4]

※39回 2級

$$\textcircled{1} \quad \bar{A}_1 = \frac{84}{4} = 21, \quad \bar{A}_2 = \frac{74}{3} \div 24.67, \quad \bar{A}_3 = \frac{89}{4} = 22.25, \quad \bar{A}_4 = \frac{82}{4} = 20.5$$



$$S_T = \sum x^2 - \frac{(\sum x)^2}{n}$$

$$= 7277 - \frac{329^2}{15}$$

$$\div 60.93$$

(17) I

$$\textcircled{2} \quad S_A = S_T - S_E = 60.93 - 26.42 = 34.51 \div 34.52 \quad \textcircled{1}$$

(18) I

$$\phi_E = \phi_T - \phi_A = 14 - 3 = 11 \quad \textcircled{1}$$

(19) I

$$V_A = \frac{S_A}{\phi_A} = \frac{34.52}{3} \div 11.51, \quad V_E = \frac{S_E}{\phi_E} = \frac{26.42}{11} \div 2.40$$

$$F_0 = \frac{V_A}{V_E} = \frac{11.51}{2.4} = 4.7958 \dots \div 4.79 \quad \textcircled{1}$$

(20) I

$$F(\phi_A, \phi_E; \frac{0.05}{0.01}) = F(3, 11; \frac{0.05}{0.01}) = \frac{3.59}{6.22}$$

$$F_0 = 4.79^* \quad (5\% \text{ 有意}, 1\% \text{ 有意でない}) \quad \textcircled{1}$$

(21) I

$$\textcircled{3} \quad \text{実推定: } \bar{A}_2 = 24.67 \div 24.7 \quad \textcircled{1}$$

(22) I

$$\text{区画: } \bar{A}_2 \pm t(\phi_E, \alpha) \sqrt{\frac{V_E}{r}} \quad t(11, 0.05) \sqrt{\frac{2.4}{3}} = 1.9686 \dots$$

$$24.7 \pm 1.969 \rightarrow \begin{matrix} 22.731 & \sim & 26.669 \\ 22.7 & & 26.7 \end{matrix} \quad \textcircled{1}$$

(23) I

$$\textcircled{4} \quad \text{実: } \bar{A}_1 - \bar{A}_2 = 21 - 24.7 = -3.7$$

$$\text{区画: } (\bar{A}_1 - \bar{A}_2) \pm t(\phi_E, 0.05) \sqrt{(\frac{1}{n_A} + \frac{1}{n_B}) V_E}$$

$$-3.7 \pm 2.201 \sqrt{(\frac{1}{4} + \frac{1}{3}) 2.4}$$

$$-3.7 \pm 2.6$$

$$-6.3 \sim -1.1$$

$$\textcircled{1}$$

(24) I