

$$\text{№ 4. a) } (A \& B \& \overline{C}) \vee (A \& B \& C) \vee (A \& B) = (A \& B) \& (\overline{C} \vee C \vee 1) = A \& B:$$

$$\begin{aligned} \text{б) } (A \& B \vee A \& B \& \overline{C} \vee B \& \overline{C} \vee C) \& (\overline{C} \vee A \& C \vee \overline{A} \& B \& \overline{C}) = \\ (A \& B \vee A \& B \vee B \vee C) \& (\overline{C} \vee A \vee \overline{C}) = (A \& B \vee B \vee C) \& (\overline{C} \vee A) = \\ = (B \vee C) \& (\overline{C} \vee A) \end{aligned}$$