**JESUS AND MARY SCHOOL AND COLLEGE**

**CLASS-12 ( MATHS )**

**CHAPTER NAME – DETERMINANTS**

**WORKSHEET -2**

Date : 11/05/2020

**Q.1.** Without evaluating state why this statement is true:$ \left| \begin{matrix} 2&3&1\\ 0&0&0\\-1&2&0\end{matrix} \right|=0$

**Q.2.** Without evaluating state why this statement is true:$ \left| \begin{matrix}-2&1&0\\ 3&4&1\\-4&2&0\end{matrix} \right|=0$

**Q.3.** Without evaluating state why this statement is true:$ \left| \begin{matrix}7&3&2&0\\2&1&2&0\\4&1&1&0\\0&2&1&0\end{matrix} \right|=0$

**Q.4.** Without evaluating state why this statement is true:$ \left| \begin{matrix}2&3&21\\11&4&7\\6&15&8\end{matrix} \right| = \left| \begin{matrix}21&2&3\\7&11&4\\8&6&15\end{matrix} \right|$

**Q.5.** Without evaluating state why this statement is true:$ \left| \begin{matrix}1&2&7\\6&0&13\\8&3&5\end{matrix} \right|= \left| \begin{matrix}6&0&13\\1&2&7\\8&3&5\end{matrix} \right|$

**Q.6.** Without expanding the determinant show that: $\left| \begin{matrix}42&1&6\\28&7&4\\14&3&2\end{matrix} \right|=0$

**Q.7.** Without expanding the determinant show that: $\left| \begin{matrix}5& 15&-25\\7& 21& 30\\8& 24& 42\end{matrix} \right|=0$

**Q.8.** Without expanding the determinant show that: $\left|\begin{matrix}1&ω&ω^{2}\\ω& ω^{2}&1\\ ω^{2}&1&ω\end{matrix} \right|=0$

**Note**- **Please do this assignment in your old copies. It will be checked when the school re-opens.**

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