$15.120 \quad \vec{\omega}_{D}=5 \mathrm{rad} / \mathrm{s} 5 \quad \theta=60^{\circ} \quad \vec{\omega}_{3}=? \quad \vec{v}_{\mathrm{c} / \mathrm{s}}=$ ?
Top view $\mathcal{L} t A x y z$ be embeebled in the stor wheal.

15.121 Same govern dote. Find $\vec{\alpha}_{s}=$ ? $\quad \vec{a}_{B / s}=$ ?

$$
\vec{a}_{B}=\vec{a}_{B / A x y z}+\vec{a}_{B}+2 \vec{\Omega} \times \vec{v}_{B / A x y z}
$$

$$
\left[\begin{array}{c}
B V_{\overline{C B}(5)^{2}}^{A_{D}} \\
a_{B / s}^{60^{\circ}}
\end{array}\right]+\left[\begin{array}{l}
\overline{A B} \alpha_{s} / \phi \\
\overline{A B} \omega_{s}^{2}
\end{array}\right]
$$

$\frac{\text { V.V...G.P. }+2\left(-\omega_{s} \vec{k}\right) \times\left(-v_{B / s} \vec{i}\right)}{\vec{\alpha}_{s}=58.3 \mathrm{nad} / \mathrm{R}^{2} 2 \quad \vec{a}_{B / \mathrm{s}}=64.0 \mathrm{~mm} / \mathrm{R}^{2} \Psi 47.6^{\circ}}$


Let $A x y z$ be en bedded in boat $A$.
"AXYZ" " the ground at $A$

$$
\begin{aligned}
& \vec{v}_{B}=\vec{v}_{B / A x y 3}+\vec{v}_{B}, \quad \vec{v}_{A}=10 \mathrm{~m} / \mathrm{R} \leqslant=-10 \mathrm{i} \mathrm{~m} / \mathrm{s} \\
& {[B \stackrel{10}{\longrightarrow}]=\left[\vec{v}_{B / A \times g 2}\right]+[0.2 \vec{k} \times(-48 \vec{i}+14 \vec{j})]+\left[\vec{v}_{A}\right]} \\
& \therefore \vec{v}_{B / A x g z}=\square \\
& \vec{a}_{B}=\vec{a}_{B / A x y z}+\vec{a}_{B},+2 \vec{\Omega} \times \vec{V}_{B / A x y z} \\
& \vec{v}_{B / \text { axyz }}=24.7 \mathrm{~m} / \mathrm{/} / 22.8^{\circ} \\
& \vec{a}_{B / A N_{33}}=495 \mathrm{~m} / \mathrm{s}^{2} \sum^{67.2^{\circ}}
\end{aligned}
$$

