(a) looking at the stability of the conjugate bases:

(i) phenol is deprotonated to give an oxygen anion that is delocalized
(ii) both of the other rings have electron-withdrawing group on them, which makes forming the anion easier, which means that deprotonation happens more readily (ie, more acidic, lower $pK_a$)

(b) there is a resonance contributor possible for the para-isomer, in which the negative charge from the conjugate base, is delocalized onto the oxygen atom of the C=O, and this is not possible to draw for the meta-isomer; this anion (conjugate base) is more stable, forms more readily, and results from a more acidic compound

(c) (i) closest model: $pK_a$ 4.6

(ii) from above, the para C=O lowered the phenol ($pK_a$ 10) by 2 $pK_a$ units, so given that the directions say to take into account what else was learned on the page, the best selection would be 2.5 (which is, in fact, the value)
(a) 8
(b) trigonal planar
(c) 0
(d) trigonal planar
(e) 13
(f) bent

(g) 

(h) 

(h) 

(a) \[
\begin{align*}
&\text{H} \quad \text{C} \quad \text{CH}_3 \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
&{\cdot} \quad {\cdot} \quad {\cdot} \\
\end{align*}
\]  

(b)  

<table>
<thead>
<tr>
<th></th>
<th>NaNH\textsubscript{2}</th>
<th>NaCl</th>
<th>NaOH</th>
<th>NaCN</th>
<th>NaCCl\textsubscript{3}</th>
<th>NaN\textsubscript{3}</th>
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</thead>
<tbody>
<tr>
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<td>\textbf{X}</td>
<td></td>
<td></td>
<td></td>
<td>\textbf{X}</td>
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</tr>
</tbody>
</table>

(c)  

[Chemical structure image]
A.
(a) 18
(b) 20
(c) sp²
(d) bent
(e) trigonal planar

B.
(a) B1
(b) B2 (as drawn) is less significant than B1
(c) B3 (as drawn) is more significant than B1

(d)