

### Exercise 9.33 – Properties of alcohols

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**Q933-01** What is the organic product of the reaction between ethanol and ethanoic acid

- A.  $\text{CH}_3\text{CHO}$
  - B.  $\text{CH}_3\text{COOCH}_3$
  - C.  $\text{CH}_3\text{CH}_2\text{COOCH}_3$
  - D.  $\text{CH}_3\text{COOCH}_2\text{CH}_3$
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**Q933-02** What is the final product formed when  $\text{CH}_3\text{CH}_2\text{OH}$  is refluxed with acidified potassium dichromate (VI) ?

- A.  $\text{CH}_3\text{CHO}$
  - B.  $\text{CH}_2=\text{CH}_2$
  - C.  $\text{CH}_3\text{COOH}$
  - D.  $\text{HCOOCH}_3$
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**Q933-03** The compound  $\text{CH}_3\text{CH}_2\text{OH}$  is distilled with excess acidified potassium dichromate (VI) solution. What is the name of the functional group of the final organic product formed?

- A. Alkanal
  - B. Alkanone
  - C. Alkanoic acid
  - D. Alkanol
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**Q933-04** Which compound is formed by the dehydration of butan-2-ol,  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_3$  ?

- A.  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$
  - B.  $\text{CH}_3\text{COCH}_2\text{CH}_3$
  - C.  $\text{CH}_3\text{CHCHCH}_3$
  - D.  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$
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**Q933-05** Which compound is converted to butanal by acidified potassium dichromate (VI) solution?

- A. Butan-1-ol
  - B. Butan-2-ol
  - C. Butanone
  - D. Butanoic acid
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**Q933-06** What is the major product formed when a mixture of  $\text{CH}_3\text{H}_2\text{OH}$  and concentrated  $\text{H}_2\text{SO}_4$  is heated strongly?

- A.  $\text{CH}_3\text{CH}_3$
  - B.  $\text{CH}_3\text{CH}_2\text{SO}_4$
  - C.  $\text{CH}_3\text{COOH}$
  - D.  $\text{CH}_2\text{CH}_2$
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**Q933-07** Alkanols can undergo dehydration reactions. Which product could be obtained from the dehydration of ethanol.

- A. Ethane and ethanal
  - B. Ethene and ethanal
  - C. Ethene and ethoxyethane
  - D. Ethanal and ethanoic acid
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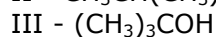
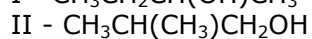
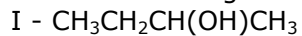
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**Q933-08** Which substance is not readily oxidised by acidified potassium dichromate (VI) solution?

- A. Propan-1-ol
  - B. Propan-2-ol
  - C. Propanal
  - D. Propanone
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**Q933-09** Consider the following compounds:



The compounds are treated separately with acidified potassium dichromate (VI). Which will produce a colour change from orange to green?

- A. I and II only
  - B. I and III only
  - C. II and III only
  - D. I, II and III
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**Q933-10** Which alkene can be formed by the dehydration of pentan-2-ol?

- A.  $\text{CH}_2\text{CH}(\text{CH}_3)_2$
  - B.  $\text{CH}_2\text{C}(\text{CH}_3)\text{CH}_2\text{CH}_3$
  - C.  $\text{CH}_2\text{CHCH}_2\text{CH}_3$
  - D.  $\text{CH}_2\text{CH}(\text{CH}_2)_2\text{CH}_3$
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