Homework 5: Composite materials

# 1. Which one of the following is a type of Aramid fibre? [1]

⬨ Cotton

⬨ Stainless steel thread

⬨ Gore-Tex®

⬨ Kevlar®

# 2. What is meant by a ‘composite’ material? [2]

# 3. Put the following steps, for forming a single layer glass reinforced plastic component, in the correct order. Draw lines between the steps. [8]

|  |  |  |
| --- | --- | --- |
| **Step 1** |  | Apply resin and work evenly into matting |
| **Step 2** | Clamp in position and leave to cure |
| **Step 3** | Apply GRP matting |
| **Step 4** | Trim and finish workpiece |
| **Step 5** | Prepare mould |
| **Step 6** | Apply gel coat |
| **Step 7** | Apply release agent |
| **Step 8** | Release the workpiece from the mould |

# 4. Explain how a Gore-Tex® membrane works. [3]

# 5. Gasses, liquids and solids can be microencapsulated in a fabric.

#  Give two applications of microencapsulation within a technical textile [2]

# 6. Discuss the environmental concerns regarding microfibre products such as the cleaning glove shown below. [4]

# C:\Users\Rob\AppData\Local\Microsoft\Windows\INetCache\Content.Word\microfibre shutterstock_40597084.jpg

 Total 20 marks