**Technical Textiles Quiz**

Please answer the following questions to the best of your ability.

**Your name**

**1.Technical Textiles can be described as:**

* Manufactured to look good
* Manufactured to be hard wearing
* Manufactured for a specific end use [correct answer]
* Manufactured to be cheap

Feedback for incorrect answers

* *Technical Textiles are engineered to perform a specific end use.*

**2.Textiles are used mainly in the manufacture of clothing and household items.**

* True
* False [correct answer]

Feedback for incorrect answers

* *Indu Tech is a huge area that includes all areas of engineering - mechanical, chemical, electrical, civil which rely on the use of technical textiles for a very diverse range of end uses.*

**3. Which of the following sectors are part of the technical Textiles industry:**

* Agro [correct answer]
* Pro [correct answer]
* Cloth [correct answer]
* Geo [correct answer]
* Furnishing
* Eco [correct answer]
* Fashion

Feedback for incorrect answers

* *The following 12 sectors are part of the Technical Textiles Industry Build tech, Agro tech, Pro tech, Medi tech, Cloth tech, Pack tech, Indu tech, Geo tech, Home tech, Mobil tech, Eco tech and Sport tech.*

**4. What are the four main properties of fabrics used in the areas of civil engineering and the building industry? Choose from the list below:**

* Smooth
* Hard
* Lightweight [correct answer]
* Stretchy
* Resilient [correct answer]
* Durable [correct answer]
* Resistant to sunlight [correct answer]
* Good drape
* Absorbent
* Opaque

Feedback for incorrect answers

* *Resilient - needs to hold its shape, Durable - needs to be hardwearing, Resistant to sunlight - shouldn't start to breakdown under UV rays, Lightweight - shouldn't add weight to the structure it is supporting.*

**5. The main purpose of Geo textiles is to:**

* Provide filtration, stabilisation and reinforcement to rocks and soil. [correct answer]
* Make intricate fabric shapes within buildings.
* Provide shelter from the elements such as wind and rain.

Feedback for incorrect answers

* *Geo textiles are used with rock, soil and the earth to provide filtration, protection, support, separation and reinforcement. Think of pond linings.*

**6. Pro-Tech textiles are designed to protect people, select three of the main properties they should have from the list below:**

* Cut proof [correct answer]
* Decorative
* Resistant to chemicals [correct answer]
* Delicate
* Flame retardant [correct answer]

Feedback for incorrect answers

* *Cut proof, resistant to chemicals, flame retardant. Pro Tech textiles can also have ballistic protection (bullet proof), and are resistant to heat*

**7. Which are the main three fabrics associated with Pro Tech textiles? Select three:**

* Corduroy
* Tencel
* Kevlar [correct answer]
* Cordura [correct answer]
* Nomex [correct answer]
* Stomatex

Feedback for incorrect answers

* *Cordura, Nomex and Kevlar*

**8. Give three reasons why textiles are used in the area of Agro Tech?**

* Support structures [correct answer]
* Protection from worms
* Protection from birds and pests [correct answer]
* Protection from wind and sunlight [correct answer]
* Make the fields look attractive
* Mulch mats [correct answer]
* Irrigation [correct answer]
* To be seen from above

**9. Smart Armour a good example of the category Cloth Tech textiles because it contains steel fibres that enable bullets to be deflected away from the body.**

* True
* False [correct answer]

Feedback for incorrect answers

* *Smart Armour is an energy absorbing fabric that is flexible enough to wear alongside undergarments but will harden momentarily on impact so that when a person falls it will protect their bones from breaking. Developed to support elderly people and those with brittle bones (osteoporosis).*

**10. The widest use of technical textiles is in the area of Mobil Tech.**

* True [correct answer]
* False

Feedback for incorrect answers

* *True, they are used inside engines in the fuel filtration systems and hoses, and air systems. They also have the following uses:
Safety: inside tyres, seat belts and air bags
Body panel composites for cars and aeroplanes
Sound insulation and roof linings*

**11. Cleansing wipes, carpet-backing and mattress filling are all examples of:**

* Hygiene Tech
* Health Tech
* Home Tech [correct answer]

Feedback for incorrect answers

* *Home Tech. This is more than cushions, curtains, carpets and duvet covers. Any aspect of the home is included, so think of all cleaning products that are textile based such as mops and wipes plus the hidden backings, linings and fillings in interior products e.g. sofas.*

**12. Cupron™ fibre can be used in socks to treat fungal infections such as athlete's foot.**

* True [correct answer]
* False

Feedback for incorrect answers

* *TRUE. Cupron™ is an antifungal fibre which incorporates copper oxide. By including this in the knitted sock fabric, fungal infections such as athlete's foot can be treated as well as providing moisture wicking properties that will keep the feet dry and healthy.*

**13. Choose two reasons that medical textiles might be used on the surface of the skin?**

* Dressing to keep wounds clean [correct answer]
* Absorb excess fluids [correct answer]
* To hide unsightly scars
* Show where injury is
* To mask unpleasant smells

**14. Inside the body, medical textiles could be used as:**

* Absorbent dressings
* Dissolvable stitches [correct answer]
* Knitted artificial arteries [correct answer]
* Knitted muscles
* Implants that allow tendons to be joined [correct answer]
* Throat support
* Artificial heart valves [correct answer]
* Artificial cartilages, ligaments and tendons [correct answer]

**15. Eco tech is based on how much textiles cost.**

* True
* False [correct answer]

Feedback for incorrect answers

* *Eco Tech is the awareness of the environmental impact the production and disposal of textiles has on our planet.*

**16. Which of the following products could be made of recycled polyester? Click all that apply.**

* Tennis balls [correct answer]
* Pyjamas
* Training shoes [correct answer]
* Jumpers [correct answer]
* Socks
* Towels
* Carpets [correct answer]

Feedback for incorrect answers

* *All except socks, towels and pyjamas which need to be absorbent - polyester is hydrophobic.
Tennis ball outers, jumpers and blankets can be made from fleece products that use recycled polyester chips. Knitted uppers on training shoes such as Adidas Parley range are made from recycled ocean plastic. Carpets and wall linings can also utilise recycled polyester.*

**17. Sport tech includes textiles that have been engineered to improve the performance of sports machinery, equipment, and surfaces, as well as sports clothing and footwear.**

* True [correct answer]
* False