COMPOSITE MATERIALS and COMPLIANT MATERIALS

This mobile revision pdf is based on detailed work found in the 'MATERIALS' and 'EQUIPMENT' sections.

Tap on the green and yellow link buttons below to go to the website.

Tap the blue button to view all work covered by this Revision PDF

V.Ryan © www.technologystudent.com 2019

COMPOSITE MATERIALS and COMPLIANT MATERIALS

HOW TO USE THIS REVISION PDF

Read and attempt answering each question, before following the link to a potential answer. Also, consider working in pairs.

QUESTIONS ONE TO FIVE

QUESTIONS SIX TO TWELVE

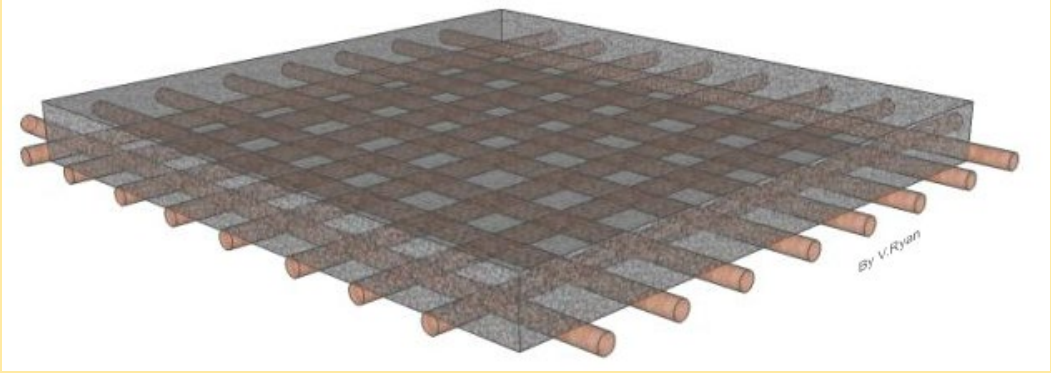
TAP / CLICK THE LINK BUTTON FOR ALL MOBILE APPS

V.Ryan © www.technologystudent.com 2019

QUESTION 1a

Write your definition for a ‘composite’ material.

Tap the image a potential answer



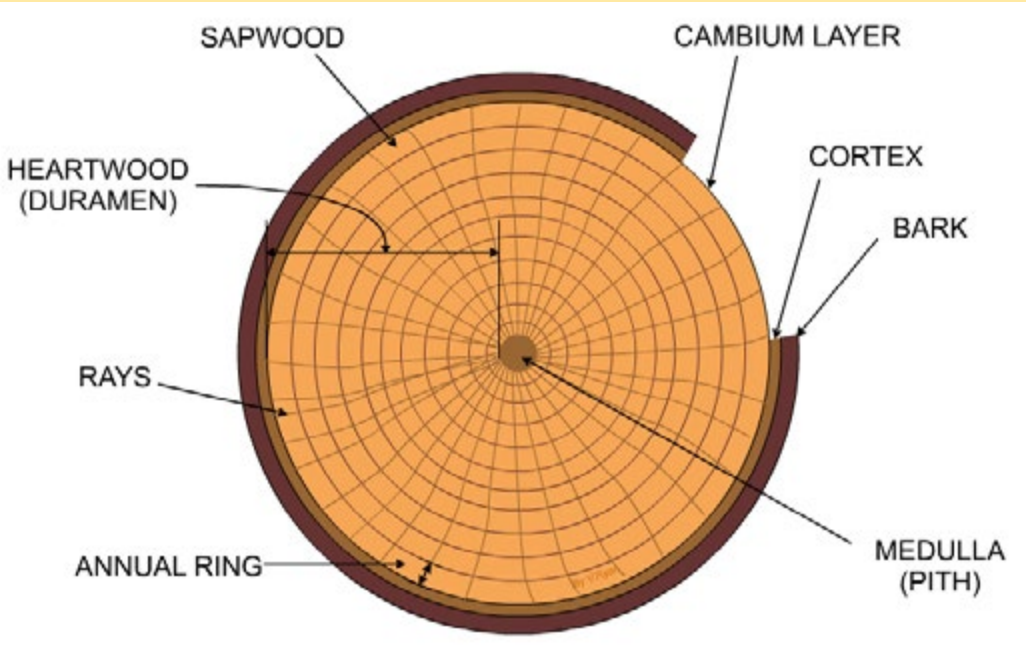
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 1b

Why is natural wood sometimes considered a composite material?

Tap the image a potential answer



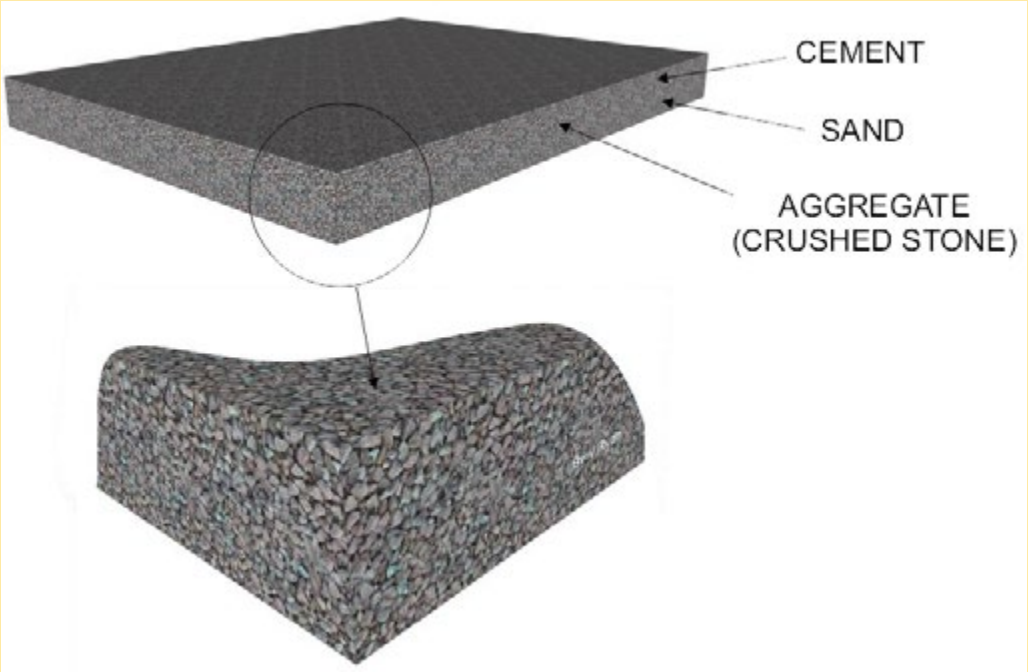
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 2a

Why is concrete a composite material?

Tap the image a potential answer



Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 2b

List four typical uses of concrete.

Tap the image a potential answer

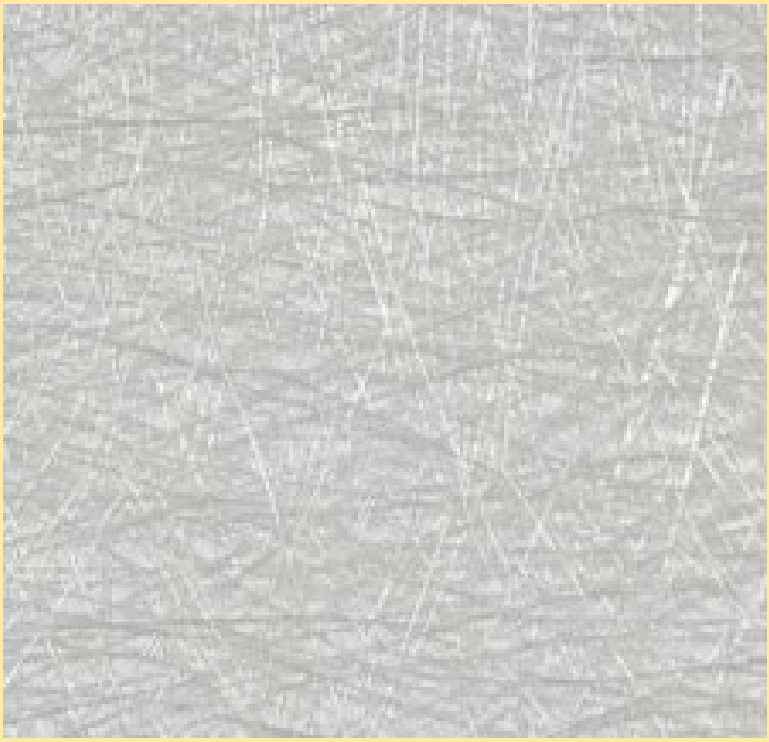
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 3a

Write the full name for GRP.
What is GRP?
Write two practical applications.

Tap the image a potential answer



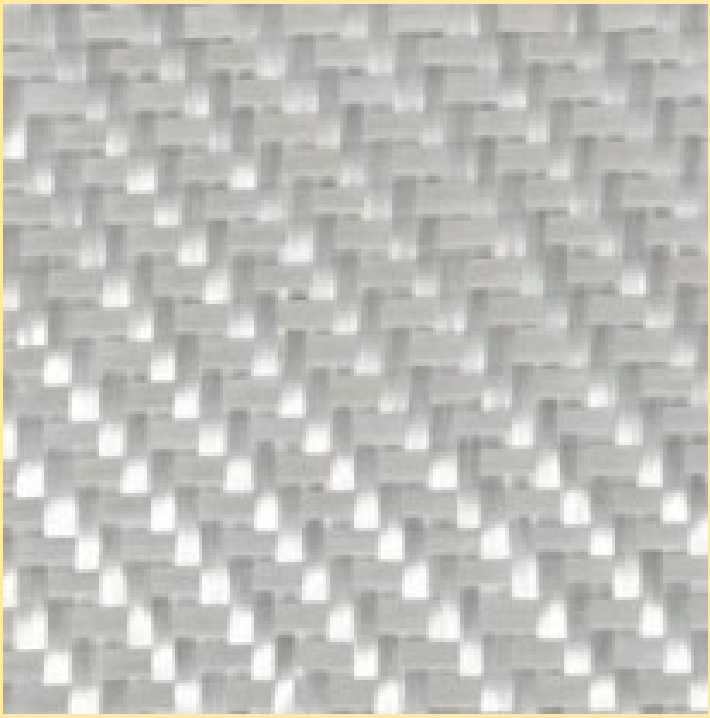
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 3b

Why is GRP manufactured as different ‘weaves’?

Tap the image a potential answer



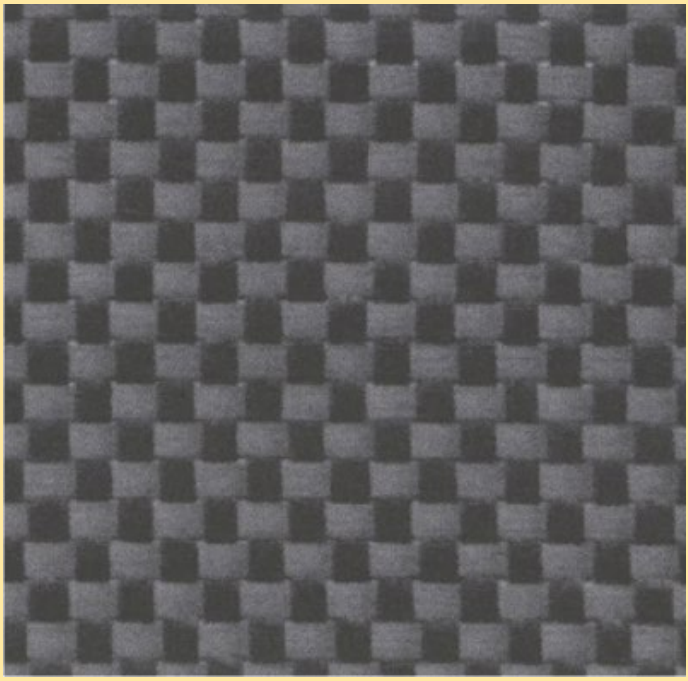
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 4

Write the full name for CFRP.
What is CFRP?
Write two practical applications

Tap the image for a potential answer



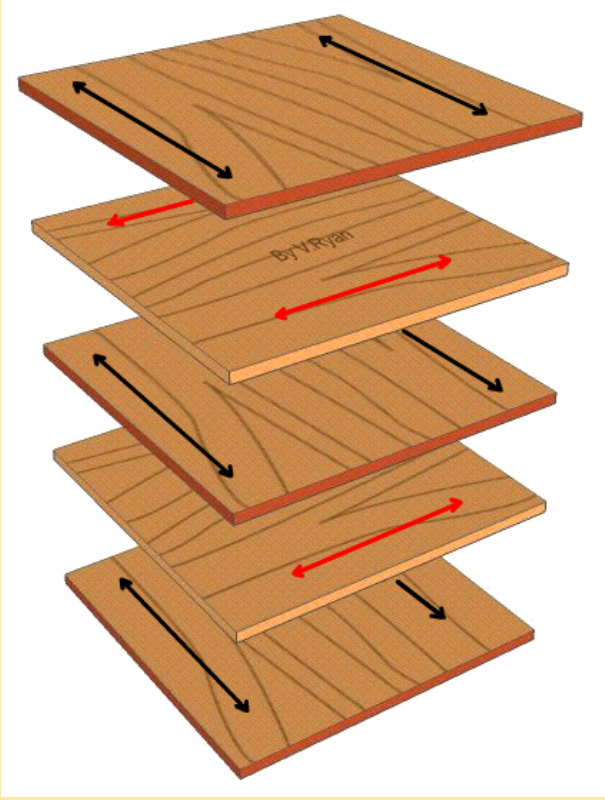
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 5a

Plywood is not a new material. Why is plywood regarded as a composite material?

Tap the image for a potential answer



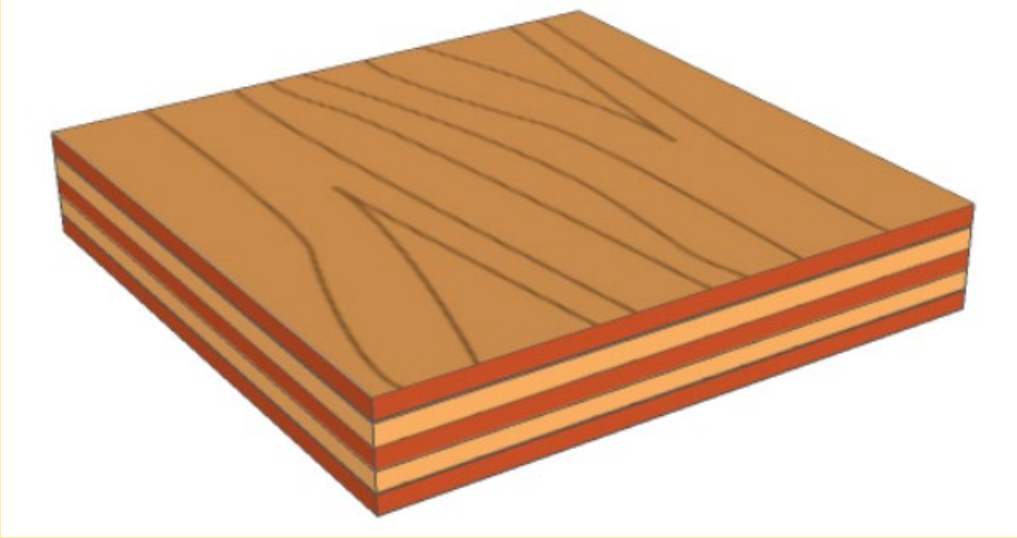
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 5b

Describe some practical applications of plywood.

Tap the image for a potential answer



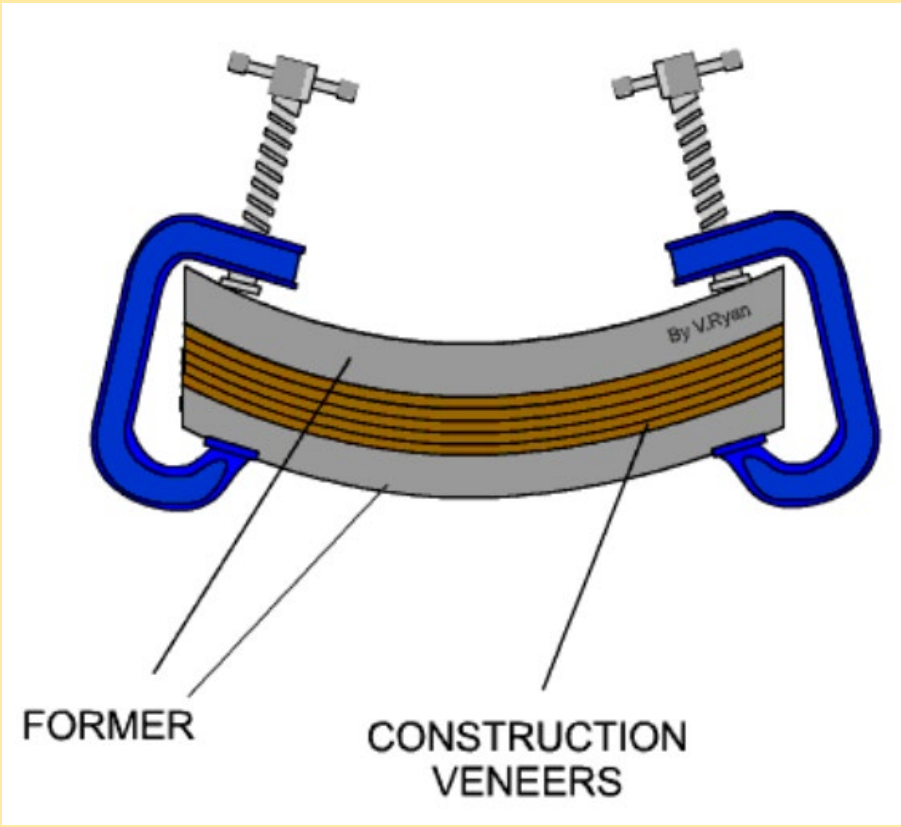
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 5c

How are laminated parts manufactured?

Tap the image for a potential answer



Tap the red button to return to the Contents page

QUESTION 6a

What is Kevlar®?
When was it developed first?

Tap the image for a potential answer

Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 6b

List eight practical applications of Kevlar®.

Tap the image for a potential answer

Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 6c

List three advantages and disadvantages of Kevlar®.

Tap the image for a potential answer

Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 7

Why is Kevlar® suitable for luxury automobile bodywork?

Tap the image for a potential answer

Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 8

Describe three other uses of Kevlar®, in the automobile industry.

Tap the image for a potential answer

Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 9

Why is Kevlar© ideal for Formula One fuel tanks?

Tap the image for a potential answer

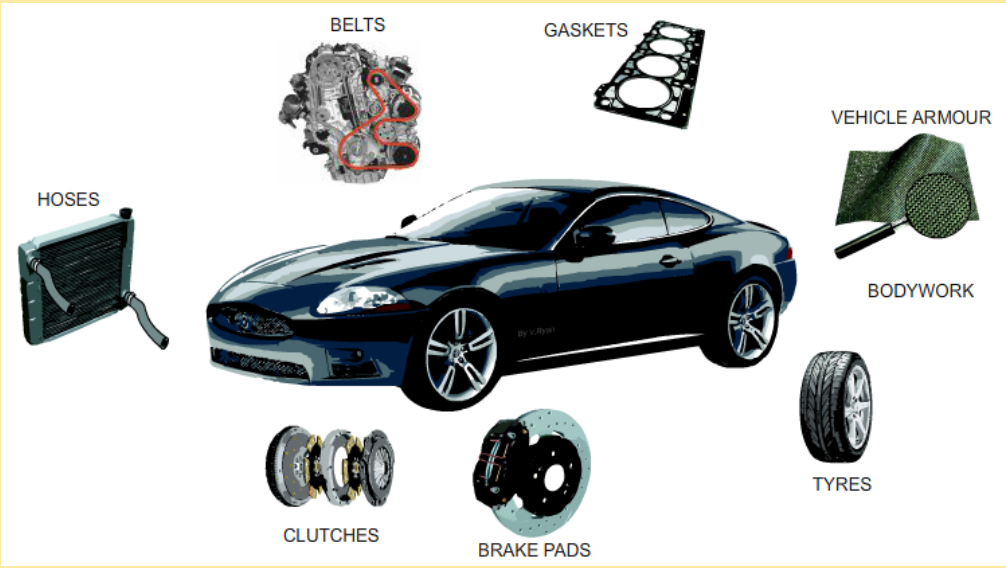
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 10

Sketch a summary sheet, showing the use of Kevlar© in the automotive industry.

Tap the image for a potential answer



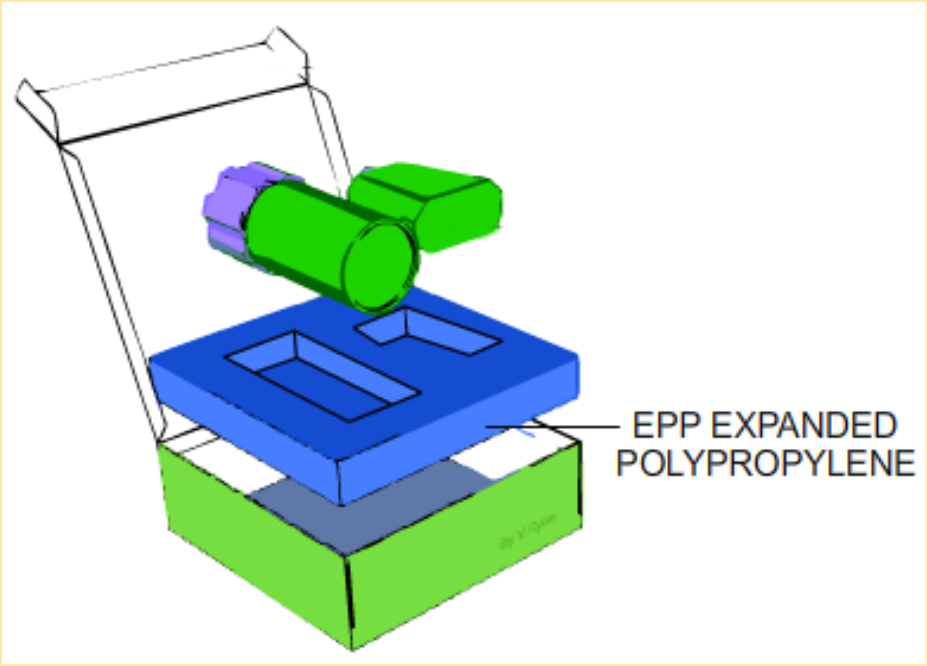
Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 11

What is a compliant material?

Tap the image for a potential answer



Tap the blue button for the next slide / page.

Tap the red button to return to the Contents page

QUESTION 12

Select ONE of the compliant materials listed below. Describe a practical application.

Extruded polystyrene foam (styrofoam).
Expanded Polypropylene.
Acetate.

Tap the image for a potential answer

Tap the red button to return to the Contents page