

1. What is the difference between printing and coating?

- ☐ Printing and coating is the same thing
- ☒ Printing can produce patterns, such as text, while coating cannot
- ☐ Coating can produce patterns, such as text, while printing cannot

✓ **Correct**

That is correct

Printing allows for patterning, while coating only allows for very limited patterning.

2. Select the correct statement(s)

- ☒ Polymer solar cells can be roll to roll processed because the layers can be processed from solution

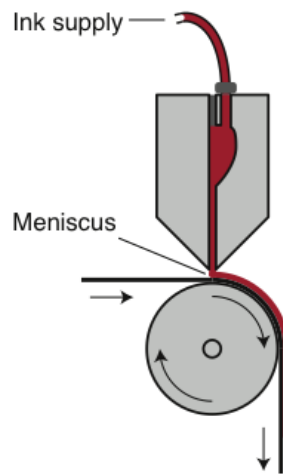
✓ **Correct**

That is correct

One of the key advantages of polymer solar cells is that they can be produced in roll to roll process. This is made possible by the fact that all layers can be processed from solution.

- ☐ Polymer solar cells are always made using ITO as a transparent conductive oxide

3. Which coating or printing method is depicted?



- ☒ Slot die coating
- ☐ Spin coating
- ☐ Knife coating
- ☐ Screen printing

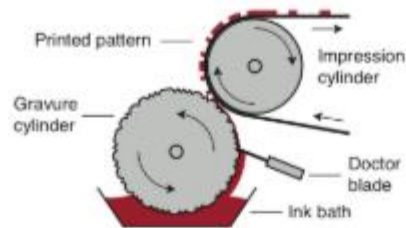
✓ Correct

That is correct

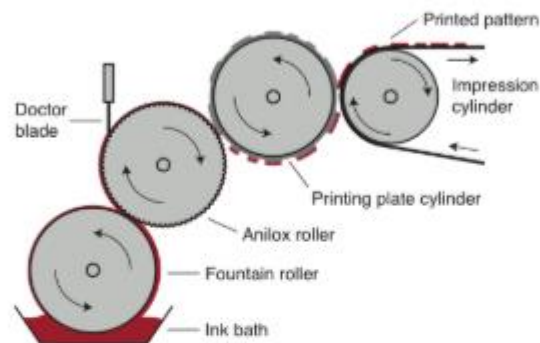
You can read more about coating techniques [here](#).

4. Select the figure depicting rotary screen printing from the list below

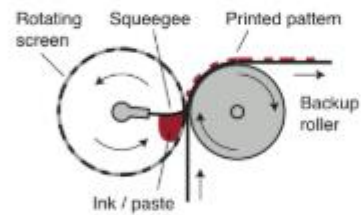
☐ Option A



☐ Option B



☒ Option C



✓ Correct

That is correct.

In video 1, you can see an example of rotary screen printing and you can read more about printing techniques [here](https://www.plasticphotovoltaics.org).



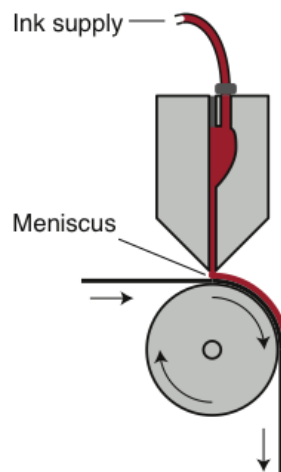
5. List the main advantages of polymer solar cells as compared to first and second generation devices

The 1st generation contains solar cells that are relatively expensive to produce and have a low efficiency. The 2nd generation contains types of solar cells that have an even lower efficiency but are much cheaper to produce

✓ **Correct**

Specific advantages of organic solar cells include rapid, ultra-low-cost manufacturing, a thin, lightweight, and flexible form factor. The technology inherently allows non-toxic and can be environmentally friendly.

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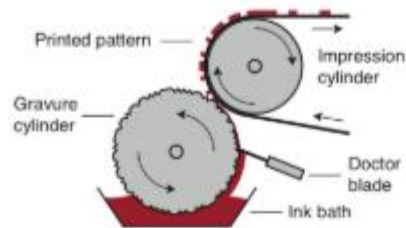
✓ **Correct**

That is correct

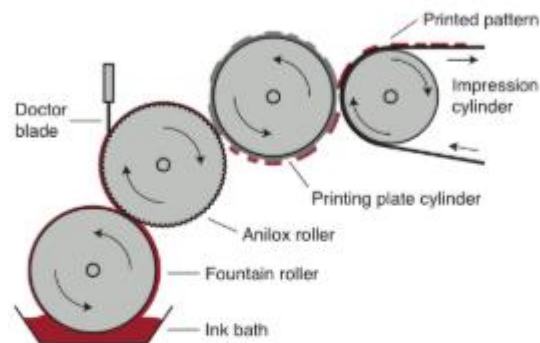
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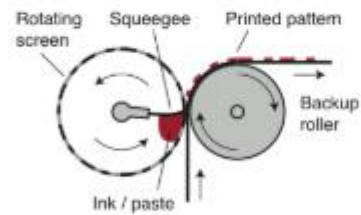
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