

## LESSON 7 – LISTENING SECTION 3

### Questions 21-25

Choose the correct letter, **A**, **B** or **C**.

### Project on using natural dyes to colour fabrics

**21** What first inspired Jim to choose this project

- A** textiles displayed in an exhibition
- B** a book about a botanic garden
- C** carpets he saw on holiday

**22** Jim eventually decided to do a practical investigation which involved

- A** using a range of dyes with different fibres.
- B** applying different dyes to one type of fibre.
- C** testing one dye and a range of fibres.

**23** When doing his experiments, Jim was surprised by

- A** how much natural material was needed to make the dye.
- B** the fact that dyes were widely available on the internet.
- C** the time that he had to leave the fabric in the dye.

**24** What problem did Jim have with using tartrazine as a fabric dye

- A** It caused a slight allergic reaction.
- B** It was not a permanent dye on cotton.
- C** It was ineffective when used on nylon.

### Questions 25-30

What problem is identified with each of the following natural dyes?

Choose **SIX** answers from the box and write the correct letter, **A-H**, next to Questions 25-30.

#### Problems

- A It is expensive.
- B The colour is too strong.
- C The colour is not long-lasting.
- D It is very poisonous.
- E It can damage the fabric.
- F The colour may be unexpected.
- G It is unsuitable for some fabrics.
- H It is not generally available.

#### Natural dyes

- 25** turmeric .....
- 26** beetroot .....
- 27** Tyrian purple .....
- 28** logwood .....
- 29** cochineal .....
- 30** metal oxide .....

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### TAPESCRIP<sup>T</sup>

**TUTOR** OK, Jim. You wanted to see me about your \_\_\_\_\_ project.

**Jim** That's right. I've been looking at how a range of natural dyes can be used to color fabrics like cotton and wool.

**TUTOR** Why did you choose that topic?

**Jim** Well, I got a lot of useful ideas from the museum, you know, at the exhibition of textiles. But I've always been interested in anything to do with color. Years ago, I went to a carpet shop with my parents when we were on holiday in Turkey, and I remember all the amazing colors.

**TUTOR** They might not all have been natural dyes.

**Jim** Maybe not, but for the project I decided to follow it up. And I found a great book about botanic garden in California that \_\_\_\_\_ plants used for dyes.

**TUTOR** OK. So, in your project, you had to include a practical investigation.

**Jim** Yeah. At first I couldn't \_\_\_\_\_ my variables. I was going to just look at one type of fibre for example, like cotton ...

**TUTOR** ... and see how different types of dyes affected it?

**Jim** Yes. Then I decided to include others as well, so I looked at cotton and wool and nylon.

**TUTOR** With just one type of dye?

**Jim** Various types, including some that weren't natural, for comparison.

**TUTOR** OK.

**Jim** So, I did the experiments last week. I used some \_\_\_\_\_, I found a website which supplied them, they \_\_\_\_\_ just a few days, but I also made some of my own.

**TUTOR** That must have taken quite a bit of time.

**Jim** Yes, I'd thought it'd just be \_\_\_\_\_ a teaspoon or so of dye, and actually \_\_\_\_\_ at all. Like I was using one vegetable, beetroot, for a red dye, and I had to chop up a whole pile of it. So it all took longer than I'd expected.

**TUTOR** One possibility is to use food colorings.

**Jim** I did use one. That was a yellow dye, an artificial one.

**TUTOR** Tartrazine?

**Jim** Yeah. I used it on cotton first. It came out a great color, but when I rinsed the material, the color just washed away. I'd been going to try it out on nylon, but I abandoned that idea.

**TUTOR** Were you worried about health issues?

**Jim** I'd thought if it's a legal food coloring, it must be safe.

**TUTOR** Well, it can occasionally cause \_\_\_\_\_, I believe.

**TUTOR** So what natural dyes did you look at?

**Jim** Well, one was turmeric. The color's great, it's a really strong yellow. It's generally used in dishes like curry.

**TUTOR** \_\_\_\_\_ quite good for your health when eaten, but you might find it's not permanent when it's used as a dye – a few washes, and it's gone.

**Jim** Right. I used beetroot as a dye for wool. When I chop up beetroot to eat I always end up with bright red hands, but the wool ended up just a sort of \_\_\_\_\_ shade. Disappointing.

**TUTOR** There's a natural dye called Tyrian purple. Have you heard of that?

**Jim** Yes. It comes from a shellfish, and it was worn in ancient times but only by important people as it was so rare. I didn't use it.

**TUTOR** It \_\_\_\_\_ centuries ago, though one researcher managed to \_\_\_\_\_ some recently. But that shade of purple can be produced by chemical dyes nowadays. Did you use any black dyes?

**Jim** Logwood. That was quite complicated. I had to prepare the fabric so the dye would take.

**TUTOR** I hope you were careful so wear gloves.

**Jim** Yes. I know \_\_\_\_\_ that dye.

**TUTOR** Good. It can be extremely dangerous if it's ingested. Now, presumably you had a look at an insect-based dye? Like cochineal, for example?

**Jim** Yes, I didn't actually make that, I didn't have time to start crushing up insects to get the red color and anyway they're not available here, but I managed to get the dye quite easily from a website. But it \_\_\_\_\_. I can see why it's generally just used in cooking and in small quantities.

**TUTOR** Yes, it's very effective, but that's precisely why it's not used as a dye.

**Jim** I also read about using metal oxide. Apparently you can allow iron to rust while it's \_\_\_\_\_ the fabric, and that colors it.

**TUTOR** Yes, that works well for dying cotton. But you have to be careful as the metal can actually affect the fabric and so you can't expect to \_\_\_\_\_ out of fabrics treated in this way. And the colors are quite subtle, not everyone likes them. Anyway, it looks as if you've done a lot of work.

## VOCABULARY

*Translate these following expressions into Vietnamese:*

- 1 Textile design (n)
- 2 Specialize in (v)
- 3 Decide on (v)
- 4 Ready-made natural dyes
- 5 Come in (v)
- 6 A matter of
- 7 That is (not) the case
- 8 Allergic reaction(s) (n)
- 9 It's meant to V/be
- 10 Watery cream (n)
- 11 Fall out of use (v)
- 12 Get hold of (v)
- 13 The danger with
- 14 Cost a fortune
- 15 Be in contact with
- 16 Get a lot of wear