Chapter 8

- An (1)______ is a chemical substance produced naturally by one type of micro-organism (e.g. a fungus) that (2)______ or prevents the further growth of another type of (3)______ (e.g. bacterium). Antibiotics do not work on (4)_____.
- Different antibiotics are effective against different bacteria. If the bacterium's growth is prevented by the antibiotic, the bacterium is said to be (5)_____; if the antibiotic has no effect, the bacterium is said to be (6)_____.
- 3. Antibiotics are produced naturally by soil (7)______ to kill their (8)_____.
- 4. The first antibiotic was discovered by Alexander (9)_____.
 He called it (10)_____.
- 5. An (11)______ is a chemical substance that (12)_____ down or stops the growth of fungal infections such as (13)_____ and (14)_____.
- 6. The technology that allows scientists to transfer genes from one living organism to another is called (15)_____ engineering. This procedure makes it possible for scientists to create micro-organisms that (16) have been genetically to produce а pharmaceutical product (17)_____ (e.g. (18)_____ cells that make hepatitis В can (19)_____.

- The pharmaceutical industry grows useful micro-organisms on a vast scale in industrial (20)______ to produce huge quantities of (21)______ such as antibiotics.
- In an industrial fermenter, conditions such as (22) ______ are carefully (23) ______ by computers and are automatically (24) ______ when necessary to give the microbe the ideal conditions for (25) _____.
- When a new antibiotic is discovered, it is normally very effective at the start but soon becomes (26) ______ effective as resistant strains of (27) ______ appear and increase in number.
- 10. (28)______ of antibiotics by doctors and over-use of antibiotics by (29)______ can both lead to an increase in number of bacteria that develop (30)______ to antibiotics.

adjusted antibiotic antifungal athlete's foot bacteria desired destroys engineered farmers fermenters Fleming fungi genetic growth less micro-organism monitored Over-prescription penicillin products resistance resistant rivals sensitive slows temperature thrush vaccine viruses yeast

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Chapter 8

- 1. An antibiotic is a chemical substance produced naturally by one type of microorganism (e.g. a fungus) that destroys or prevents the further growth of another type of micro-organism (e.g. bacterium). Antibiotics do not work on viruses.
- 2. Different antibiotics are effective against different bacteria. If the bacterium's growth is prevented by the antibiotic, the bacterium is said to be sensitive; if the antibiotic has no effect, the bacterium is said to be resistant.
- 3. Antibiotics are produced naturally by soil fungi to kill their rivals.
- 4. The first antibiotic was discovered by Alexander Fleming. He called it penicillin.
- 5. An antifungal is a chemical substance that slows down or stops the growth of fungal infections such as athlete's foot and thrush.
- 6. The technology that allows scientists to transfer genes from one living organism to another is called genetic engineering. This procedure makes it possible for scientists to create micro-organisms that have been genetically engineered to produce a desired pharmaceutical product (e.g. yeast cells that can make hepatitis B vaccine.
- 7. the pharmaceutical industry grows useful micro-organisms on a vast scale in industrial fermenters to produce huge quantities of products such as antibiotics.
- 8. IN an industrial fermenter, conditions such as temperature are carefully monitored by computers and are automatically adjusted when necessary to give the microbe the ideal conditions for growth.
- 9. When a new antibiotic is discovered, it is normally very effective at the start but soon becomes less effective as resistant strains of bacteria appear and increase in number.
- 10. Over-prescription of antibiotics by doctors and over-use of antibiotics by farmers can both lead to an increase in number of bacteria that develop resistance to antibiotics.