# **SMART EXAM RESOURCES 0654 COORDINATED SCIENCES [ DOUBLE AWARD] TOPIC QUESTIONS – BIOLOGY [ PAPER 2- MCQ]**

## 18.4-Energy-losses-food-chain-Set-1

1.

Why is energy lost along a food chain?

- All plants and animals respire.
- В Decomposers are at one end of a food chain.
- C Energy enters a food chain only through plants.
- D Not all animals feed on plants.

2.

The diagram shows a food chain.

Sunlight 
$$\rightarrow$$
 P  $\xrightarrow{1}$  Q  $\xrightarrow{2}$  R  $\xrightarrow{3}$  S

Where do energy losses occur?

- A 1 only
  - **B** 1 and 2 only **C** 2 and 3 only **D** 1, 2 and 3

3.

Why do food chains usually have fewer than five trophic levels?

- Decomposers are not usually included in the chain. Α
- В Energy is lost between each trophic level.
- C There is only one level of carnivores.
- D There is only one level of herbivores.

#### 4.

The diagram shows a food chain.

Which organisms pass the greatest amount of energy along the food chain?

#### 5.

Which process is responsible for the flow of energy along a food chain?

- A feeding
- **B** pollination
- C respiration
- D seed dispersal

#### 6.

The diagram shows a food chain. The arrows show the flow of energy between organisms.

Sun 
$$\longrightarrow$$
 plants  $\longrightarrow$  fish 1  $\longrightarrow$  fish 2  $\longrightarrow$  humans

Where will energy loss occur?

- A from W only
- B from W, X and Y only
- C from X, Y and Z only
- **D** from W, X, Y and Z

### 7.

Why do food chains usually have fewer than five trophic levels?

- A All the carnivores consume herbivores.
- **B** The energy passed on reduces from one trophic level to the next.
- **C** There is less protein in each individual higher up the chain.
- **D** There is only one producer in each chain.

8.

In the food chain shown, 10% of the energy is transferred between each trophic level.

$$grass \rightarrow grasshopper \rightarrow frog \rightarrow snake \rightarrow buzzard$$

For every 100 kJ of energy in the herbivore, how much energy will be transferred to the tertiary consumer?

- **A** 0.1 kJ
- **B** 1 kJ
- **C** 10 kJ
- **D** 100 kJ

9.

Why do food chains usually have fewer than five trophic levels?

- A All the carnivores consume herbivores.
- **B** The energy passed on reduces from one trophic level to the next.
- **C** There is less protein in each individual higher up the chain.
- **D** There is only one producer in each chain.

10.

Why do food chains usually have fewer than five trophic levels?

- A All the carnivores consume herbivores.
- **B** The energy passed on reduces from one trophic level to the next.
- **C** There is less protein in each individual higher up the chain.
- **D** There is only one producer in each chain.