



Fungal and Protist Disease

1 Fill in the missing words

Spread / Fungi / Multicellular / Spores / Eukaryotic / Skin / Bacteria / Hyphae / Unicellular / Yeast

Fungi are **eukaryotic** organisms and can be either **unicellular**, or multicellular. For example **yeast** is a unicellular fungi that we use to make bread rise, while mushrooms are **multicellular** fungi . Often the multicellular ones have long thread like structures called **hyphae**, which protrude from the main body, and **spread** through the soil. Sometimes they can also spread over plants or penetrate human **skin** and cause disease. The hyphae can also produce **spores**, which spread easily and grow into new **fungi**.

[9 marks]

2 An example of a fungal disease is Rose black spot.

a) Discuss how rose black affects plants?

- They damage the leaves causing purple and black spots to form, the leaves may then turn yellow and fall off
- The damaged parts of the leaves can't photosynthesise
- So the plant can't grow so well

[3 marks]

b) How can we manage rose black spot?

- Cut off infected leaves (and burn them)
- Spray the plants with fungicides

[2 marks]

3 Just like fungi, protists are also eukaryotes, and can be unicellular or multicellular. The large majority of them are unicellular though.

a) Some protists are classed as parasites. What are parasites?

- Parasites are organisms that live on or inside another organism and survive at that other organisms expense.

[1 mark]

b) The main way that many protists spread is by vectors. What are vectors and how do they work?

- Vectors are other organisms, like insects, that transport the protists between different host organisms,
- Without getting the disease itself.

[2 marks]

c) Malaria is caused by a 'parasitic protist' that is transported between hosts by mosquitos. Explain how this transfer works

- Mosquitos feeds on an animal that is infected with the malaria parasite
- The blood that they suck up contains some parasites
- When the mosquito feeds on a healthy animal, the parasites are transferred and that animal becomes infected

[3 marks]

d) Malaria infection can cause recurrent episodes of fevers and headaches. What does the term 'recurrent episodes' mean?

- The episodes of illness recur, with periods of health between

[1 marks]

e) Discuss how we can reduce the spread of malaria

- Destroy breeding sites
- Mosquito repellent spray
- Bed nets
- Avoid going out at night when they feed etc

[3 marks]

[Total 24 marks]

These are sample answers and should not be taken as the only correct answers