



Biology Leaving Certificate Higher Level

Past Exam Questions on:

Fungi

Q82012

8. (a) (i) Are fungi prokaryotic or eukaryotic? _____
(ii) Name **one** structure in plant cells not found in fungi.

- (b) (i) What is the purpose of using agar when growing fungi or bacteria in the laboratory?

- (ii) Suggest **one** reason why leaf yeasts are more plentiful in July than in March.

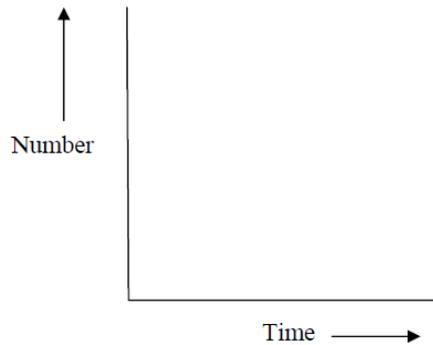
- (iii) Describe how you introduced the leaf yeasts into agar plates.

- (iv) What was the precise purpose of a control in this investigation?

- (v) How did you recognise the leaf yeasts when they appeared on the agar?

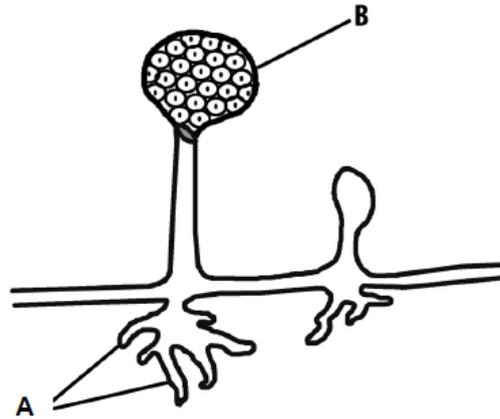
- (vi) How did you safely dispose of the plates at the end of the investigation?

- (vii) Using the axes below, draw a graph to show how the number of leaf yeasts varied following their introduction into the plate.



Q15 © 2011

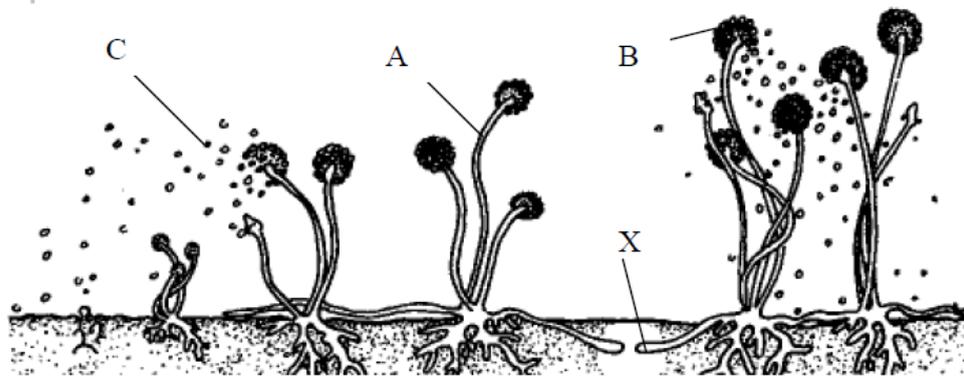
- (c) The diagram below shows part of the mycelium of the fungus *Rhizopus*.



- (i) Give the name **and** state a function of the part labelled A.
- (ii) Name part B **and** explain why the reproduction associated with it is asexual.
- (iii) The nutrition of *Rhizopus* is described as being *saprophytic*.
 1. What does the term *saprophytic* mean?
 2. Explain the importance of saprophytic nutrition in the overall scheme of nature.
- (iv) Saprophytic nutrition is a form of *heterotrophic* nutrition.
What does the term *heterotrophic* mean?
- (v) Name another form of nutrition employed by some fungi.
- (vi) Give **two** examples of harmful members of the kingdom Fungi.

Q 14 (C) 2009

(c)



- (i) Identify the organism shown in the diagram.
- (ii) To which kingdom does this organism belong?
- (iii) Name the parts labelled A, B and C.
- (iv) 1. Give a role, other than anchorage, for structure X.
2. Describe how X carries out this role.
- (v) Which term describes the mode of nutrition of this organism.
- (vi) The cells of this organism are described as eukaryotic.
Give **two** characteristic features of eukaryotic cells.
- (vii) What corresponding term is used to describe bacterial cells?

Q8 2007

- (a) (i) Name a fungus, other than yeast, that you studied during your course.
- (ii) Give **one** way in which the fungus that you have named in (i) differs from yeast.
- (b) Answer the following questions in relation to your investigation of the growth of leaf yeast.
- (i) It was necessary to use a nutrient medium. What is a nutrient medium?
- (ii) Name the nutrient medium that you used.
- (iii) The nutrient medium should be sterile. Explain the underlined term. Describe, in words and/or labelled diagram(s), how you conducted the investigation. What was the result of your investigation?

Q9 2005

9. (a) (i) Yeasts are eukaryotic organisms. What does this mean?
- (ii) To which kingdom do yeasts belong?
- (b) Answer the following questions in relation to an experiment that you carried out to investigate the growth of leaf yeast.
- From which plant did you collect the leaf sample?
 - Describe how you collected the leaf sample.
 - What did you do with the leaves when you returned to the laboratory?
 - Nutrient agar plates are used in this experiment. What are nutrient agar plates and what is their purpose?
 - What did you observe in the agar plates at the end of the experiment?
 - Having finished the experiment, what did you do with the agar plates?

Q15(c) 2005

Saprophytic and parasitic fungi are widespread in nature.

- (i) Explain each of the underlined terms.
- (ii) State a role of each of these types of fungus in the overall scheme of nature.
- (iii) Give **one** example of a beneficial fungus and **one** example of a harmful fungus.
- (iv) State a function for each of the following structures that are found in fungi; rhizoid, sporangium, gametangium, zygospore.

