

**CAMBRIDGE**  
INTERNATIONAL EXAMINATIONS

**NOVEMBER 2002**

**INTERNATIONAL GCSE**

<b>MARK SCHEME</b>
<b>MAXIMUM MARK : 70</b>
<b>SYLLABUS/COMPONENT : 0600/2</b> <b>AGRICULTURE</b> <b>(CORE)</b>



Page 1	Mark Scheme	Syllabus
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1. (a) (i) sub-soil; 1
- (ii) 1. growth of roots; 1
2. CO<sub>2</sub> / SO<sub>2</sub> + water;  
Acid dissolves rock; R breaks down rock 2
- (b) same key as example;  
sand / clay / humus in a balanced proportion; 2
- (c) B; the lime flocculates / breaks up the clay; 2
- B; lime is alkaline; 2
- [10]
2. (a) (i) plant Q; 1
- (ii) large / colourful petals;  
nectary / scent;  
enclosed parts;  
simple stigma; any two 2
- (iii) food storage / spread of plant (asexual reproduction) / stability; 1
- (iv) nodules; 1
- (v) bacteria; 1
- (b) (i) transpiration; 1
- (ii) Q;  
larger surface area; 2
- (c) (i) fungus; 1
- (ii) remove and burn /use fungicide; 1
- (d) Q because larger leaves; shade out weeds;
- or
- P because food reserve in rhizome; enables growth; (no mark for choice) 2
- [13]

3. (a) (i) fork;  
hoe;  
spade; **R shovel** **any two** 2
- (ii) do not leave them lying around / only use for correct purpose; 1
- (iii) aeration;  
improve drainage;  
enables root penetration; **any two** 2
- (b) aspect - exposure to wind;  
nature of soil - drainage / fertility / pH;  
shade - light availability;  
slope - water retention / water availability; **any three** 3
- (c) (i) appropriate fruit condition eg. hardness ; colour ; moisture content ;  
leaf ; plant yellowing **any two** 2
- (ii) method of harvest - combine harvester ; cut with panga ; hand pick;  
harvest or post harvest detail - grain separation ; dry; 2
- (iii) damp; effective storage detail eg. off ground;  
fungi; store in dry;  
pests e.g weevil ; traps / baffles / baits; 2
- [14]
4. (a) (i) growth / tissue development / cell development; 2  
fats;
- (ii) water / roughage / fibre; 1
- (iii) respiration; 1
- (iv) bones / teeth / egg shell; 1
- (v) chlorophyll; 1
- (b) called photosynthesis;  
energy from sun;  
joins CO<sub>2</sub> + H<sub>2</sub>O;  
catalyst chlorophyll; 4
- (c) (i) tubers are bulk so fills animal up / low ratio of protein and carbohydrate to bulk; 1
- (ii) grains have high protein / high energy; 1
- [12]

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5. (a) (i) long lasting; R good conductor of heat  
 does not harbour pests; any two  
 low fire risk; 1
- (ii) hens can escape via nest box and roof / egg box inaccessible; 1
- (iii) rotation allows grass to re-grow; any two  
 parasite levels controlled; isolation of sick poultry, control breeding 2
- (b) advantage - recycling waste energy efficient; R droppings food for fish  
 nutrients in droppings used by pond life which are food for fish; any one 1  
 saves land space;  
 hens safer from predators;
- disadvantage - droppings breakdown accelerates stagnant conditions; any one 1  
 risk of parasites / disease spread; water pollution
- (c) turkeys not such good layers; any one 1  
 turkeys bigger so eat more; [8]  
 idea that turkeys less economic but with reason;
6. (a) (i) A. sperm duct / vas deferens 2  
 B. urethra;
- (ii) medium for sperm; any one 1  
 activate sperm;  
 lubrication;
- (b) 1. isolation; 2  
 2. spray cord / ensure suckling / clear nostrils;
- (c) provides high energy food / antibodies. 1
- (d) 1. Less robust / well-grown R dies. 2  
 2. quicker recovery / more young in given time;
- (e) (i)  $32+32+32+4=100$  1  
 64 68;
- (ii) 2003; July 2  
 carrying capacity is  $18 \times 5=90$ ;
- (iii) compaction; 2  
 erosion; R references to animals any two  
 injury to plants;  
 poor recovery growth; [13]