

Environmental and Land Based Science

General Certificate of Secondary Education

Unit **B492/01**: Amenity Horticulture (Foundation Tier)

Mark Scheme for January 2011

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All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

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1. Abbreviations, annotations and conventions used in the detailed Mark Scheme.

- / = alternative and acceptable answers for the same marking point
- (1)** = separates marking points
- not** = answers which are not worthy of credit
- reject** = answers which are not worthy of credit
- ignore** = statements which are irrelevant
- allow** = answers that can be accepted
- () = words which are not essential to gain credit
- = underlined words must be present in answer to score a mark
- ecf = error carried forward
- AW = alternative wording
- ora = or reverse argument

Question	Expected Answers	Marks	Additional Guidance
1	C- Other plants may get diseased.	1	
2	C- Make sure the plants are given plenty of light.; E- Water the tubs when the compost is dry.	2	
3	B- Seedlings will be easier to prick out later.	1	
4	Annual	1	
5	B- Cultural: hoe between the plants	1	
6	Dig over soil. Remove perennial weeds (given) Apply a granular fertiliser Rake the soil so it is level. Lay turf in a 'brickwork' pattern Water during dry spells	3	All 5 correct for 3 marks 3 correct for 2 marks 2 correct for 1 mark
7	B- increases the risk of diseases in the soil	1	
8	Advantages: (one from) less risk of cutting cable/ can be used away from buildings (portable)/ less risk of electrocution. Disadvantages: (one from) heavier/ petrol is flammable/ need to be refuelled/ Petrol fumes are polluting/ more expensive to purchase.	2	One mark for advantage, one for disadvantage. Allow: no wires/ no need for leads Reject: Quicker; does a better job Reject 'expensive' without clarification Allow: noisy; costs more to run

Question	Expected Answers	Marks	Additional Guidance
9	Any two from: Reduced light levels; Leaves will get into gutters meaning more maintenance; Trees/branches might damage building; Roots damaging foundations	2	
10	2 from : water (if dry); keep weeds down, check tie is not too tight/ loose; check tree has not worked loose from soil; cut off dead branches	2	Allow: check for pests & diseases Allow: check plant is still upright Ignore “apply fertiliser” Reject: fit new tree guard/ remove stake (question refers to 3 months)
11	Two from: poinsettia (Euphorbia); orchid (Cymbidium etc); Christmas cactus; azalea; Hyacinth; chrysanthemum; cactus	2	Allow common name is acceptable. The range of responses is typically large but MUST be recognised as a houseplant or other examples meeting this criteria Allow foliage plants Allow Christmas tree Reject (named) hardy shrubs, bedding plants, or hardy herbaceous plants, mistletoe, holly.
12	2 from: be aware of others; do not lift too much; be aware of trip hazards; wear appropriate PPE; do not misbehave.	2	Allow: do not over-fill wheelbarrow.
13a	Rose	1	
13b	Strawberries; Raspberries	2	
14a	Horticultural glass	1	
14b	£100.00	1	Grower has to buy 4 packs!

Question	Expected Answers	Marks	Additional Guidance
14c	Thinner glass means less weight on structure	1	Allow: simply "it is thinner" Allow: lighter weight means less transport costs Allow: thinner means better light transmission
14d	Less likely to break; Better insulation properties	2	Allow: easier to cut
15	(2 from) : less chemical residues, specific to pest/disease; does not harm beneficial organisms; biological agent may remain living around the crop for continued control	2	Reject: "natural" or "organic" without qualification Reject: "cheaper" Reject: pollution/ better for the environment Allow: Organic classification may command a higher price
16	3 from: use of protected structure (glasshouse, cloche); additional heating; sow/ plant earlier; choose earlier maturing varieties	3	Reject: GM modification Reject: provide more fertilisers.
17	3 from: correct training; use a circuit breaker device; do not use in wet conditions; wear PPE; concentrate on task; do not use under the influence of alcohol/drugs; use a cordless machine; safe working platform.	3	Reject: switch off when storing Reject: safety switch (integral into machine so not additional)
	Total	36	

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