



Rewarding Learning

General Certificate of Secondary Education
2011–2012

Science: Double Award (Modular)

Living Organisms and the Processes of Life

End of Module Test

Foundation Tier

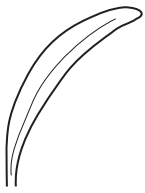
A

[GDA01]

TUESDAY 8 NOVEMBER 2011

1.30 pm–2.15 pm

**MARK
SCHEME**

| | | | AVAILABLE MARKS |
|---|---|-----|-----------------|
| 1 | (a) Damages the liver; damages brain/kidney/addictive | [2] | |
| | (b) Produces false impressions in mind/illusions/apparent perception of an external object that is not actually present/imaging things not there <i>(not mental confusion not memory loss)</i> | [1] | 3 |
| 2 | (a) A = pupil B = optic nerve | [2] | |
| | (b) To focus the light rays/refract/bend light not reflect | [1] | 3 |
| 3 | (a)  bend to right | [1] | |
| | (b) Phototropism | [1] | |
| | (c) Auxin/plant hormone | [1] | 3 |
| 4 | (a) A = ureter B = urethra | [2] | |
| | (b) Osmoregulation/control of water level in body/water/salt balance | [1] | 3 |
| 5 | (a) Leaf/palisade layer/spongy layer/mesophyll layer | [1] | |
| | (b) Respiratory tract/oviduct/fallopian tube/nose/throat/bronchi/bronchioles/trachea | [1] | |
| | (c) Chromosomes (<i>not genes/not DNA</i>) | [1] | 3 |
| 6 | (a) Benedicts (reagent) | [1] | |
| | (b) Heat/put in water bath/or description | [1] | |
| | (c) Blue → orange/red/red precipitate/brick red | [1] | 3 |
| 7 | (a) act as control/show comparison | [1] | |
| | (b) A. Blue – black or blue or black – (<i>not purple</i>) B. Yellow/orange/brown – (<i>not red</i>) | [2] | 3 |

| | | | AVAILABLE MARKS |
|--------------|---|--|-----------------------|
| 13 (a) | Athletes foot/ringworm/thrush | [1] | |
| (b) | Active | Produced by body itself | |
| | Passive | From outside the body e.g. colostrum/pass across placenta | vaccination/injection |
| | | [2] | |
| (c) | Active-memory cells made/antibodies remain in the blood (<i>not memory on its own</i>) | [1] | 4 |
| 14 (a) | Diaphragm | [1] | |
| (b) | Increased volume; decrease in pressure more space in jar | [2] | |
| (c) | Do not have alveoli/no associated blood capillaries/lots of air sacs No branching/no cells present/no bronchioles | [1] | 4 |
| 15 | Description: Cells are plasmolysed/flaccid/cell membrane has pulled away from the cell wall; (<i>not turgid not smaller vacuole</i>) Explanation: Lower water concentration outside the cells (than in the sugar solution); or more conc. sugar solution outside so water moves out of cells; by osmosis; across a partially permeable membrane/semi-permeable. Marking – 1 for Description – Any three for Explanation down conc. gradient but only if } 2 marks water moving out (<i>not down conc. gradient on its own</i>) | | 4 |
| Total | | | 50 |