

Carbonates

Mark Scheme 2

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|-------------------|--------------------------|
| Level | IGCSE |
| Subject | Chemistry |
| Exam Board | CIE |
| Topic | Carbonates |
| Sub-Topic | |
| Paper Type | Alternative to Practical |
| Booklet | Mark Scheme 2 |

Time Allowed: 44 minutes

Score: /36

Percentage: /100

| Question | Answer | Marks | Guidance |
|----------|--|-------|----------|
| 1 | 7 from: <ul style="list-style-type: none">• weighed amount / xg of toothpaste;• add water;• stir / heat;• filter (to obtain calcium carbonate);• wash;• dry;• weigh residue;• calculate percentage calcium carbonate; | 7 | |

- 2 any seven from:
equal weight/mass of limestone and marble (1) [7]
crush (1)
add excess owtte (1) hydrochloric acid (1)
stir (1)
filter mixture (1)
dry (1)
reweigh (1)
conclusion (1)
- 3 (a) points plotted correctly (2) - 1 for any incorrect
smooth curve (1) suitable scale (1) axes labelled (units not essential) (1) [5]
accept plot of loss in mass against time
- (b) from graph, 180g (ignore no units) (1)
indication on graph (1) [2]
- (c) gas given off [1]
- (d) to prevent loss of acid
not loss of water or steam [1]
- (e) 4 minutes [1]
- (f) sketched curve above original (1)
levelling out at 174s or heading towards it (1) [2]

- 4 (a) boxes completed retort/clamp stand (1)
 (teat) pipette/dropper (1)
 Bunsen burner (1) [3]
- (b) hydration/exothermic (1) [1]
-
- 5 Known mass of beach sand (1)
 add excess (1) dilute hydrochloric acid (1)
 filter (1) wash (1) dry (1) residue
 and weigh sand (1) working out result (1)
 max 6 of 8 [6]