Answers and marking guidance

Award one mark per correct, developed point unless stated. Other valid answers should be credited.

2 Describe two features that show the weight was sand cast.

- Rough, sandy surface texture
- Rounded corners and fillets
- Draft angles on the sides
- Fettling marks where the runner/riser was removed

No marks for: "It is metal"

3 Quick check

- a) Extrusion
- b) Drop forging
- c) Ejector pins
- d) Rotational moulding

4 Key terms

- 1 – F
- 2 – E
- 3 – A
- 4 – D
- 5 – B
- 6 – C

5 State two features that show the casing was injection moulded.

- Ejector pin marks
- Injection point mark
- High quality surface finish
- Strengthening ribs inside
- Draft angles
- Complex, accurate form

No marks for: "Made from plastic"

6 State two features that show the insert was vacuum formed.

- Rounded corners
- Tapered sides (draft angles)
- Thin walls
- Material thinner where it has stretched most (corners, base)

No marks for: "Made in one piece"

7 Outline two reasons die casting is suitable for the toy cars.

- Very good surface finish
- Accurate, complex shapes with fine detail
- Identical parts every time
- Faster than sand casting for large numbers
- Mould is reused, giving economies of scale

No marks for: Unqualified "quick", "cheap", "easy"