

## Test 1 Answers

### Section 1 : Analogies

- Q1** (e) : duplicate at right angles on same layer
- gets another copy at right angles to the first – rule out (a) & (c)
  - (b) is too small so compare (d) & (e)
  - horizontal hides vertical in (d) – not right so answer = (e)

- Q2** (b) : horizontal flip with projections shaded
- bit odd – basically an H-flip – rule out (a) (d) & (e)
  - compare (b) & (c) – projections should be shaded so answer = (b)

- Q3** (b) copy of outer to vertices; outline unchanged, centre disappears
- thing in the middle disappears – rule out (d)
  - need pentagons in each corner- rule out (a)
  - outline should be dashed - rule out (c)
  - compare (b) & (e) – inner should be solid so answer = (b)

- Q4** (c) : whole 90° anti-clockwise, line gets arrow head: inner part of tail moves beyond angle
- whole figure has rotated 90° anti-clockwise – rule out (a) & (b)
  - inner part of arrow's tail slides to just beyond the angle – all OK
  - outer part of tail remains – rule out (d) & (e) leaving answer = (c)

- Q5** (d) : left 90° anti-clockwise; right 180°; shading to left diagonal
- left figure rotates 90° anti-clockwise – rule out (a) & (c)
  - right figure V-flips or rotates 180° – rule out (e)
  - compare (b) & (d) – shading should rotate so answer = (d)

- Q6** (d) : shading goes to other end of centre element
- 3 separate elements merge into one – all OK
  - otherwise the outlines are the same – rule out (b) (inverted) & (c)(e) - (wrong sizes)
  - compare (a) & (d) – shading shouldn't change so answer = (d)

- Q7** (b) : 150° anti-clockwise; square goes black
- figure with contents has rotated – a bit less than 180° anti-clockwise
  - square should be near the bottom – only (b) seems suitable
  - check out the triangle – should be 1 point clockwise from square so answer = (b)

- Q8** (d) : retains 2<sup>nd</sup> and 4<sup>th</sup> elements of inner figures
- outer stays the same – all OK
  - have lost some of the inners – left should go – rule out (a) (b) (c) & (e)
  - check out (d) – has kept 2<sup>nd</sup> & 4<sup>th</sup> elements – that's right so answer = (d)
- {if you hit on the answer directly its sensible to check it if you have time}

- Q9** (b) : flip horizontal and lose shading
- basically an H-flip – rule out (c) & (e)
  - dashed bit flips with the rest – dashed at left – rule out (a) & (d) leaving answer = (b)

- Q10** (e) : main figure V- flips; minor figure moves up
- T figure has V-flipped so F should do the same – rule out (b) (c) & (d)
  - compare (a) & (e) – other figure just moves up so answer = (e)

- Q11** (e) : main figure rotates 1 segment & white bits fly out
- black dots don't move – rule out (a) (b) & (c)
  - compare (d) & (e) – black & white swap (or rotate) so answer = (e)

- Q12** (e) : inner and outer swap
- outer figure becomes inner – rule out (a)
  - middle figure stays the same – rule out (b) & (c)
  - compare (d) & (e) – simpler to say no flips so answer = (e)
- {take the simplest explanation – outer didn't flip so why should the inner}

- Q13** (c) : left hand pair swap
- 3 at the right stay the same – rule out (a) (d) & (e)
  - compare (b) & (c) - 2 at the left should swap so answer = (c)

- Q14** (b) : vertical flip
- is it a V-flip or a rotation? – look carefully – more obtuse angle stays at left so it's a V-flip
  - figure will point down so rule out (a)
  - will have 2 vertical lines at the top – rule out (c) & (e)
  - compare (b) & (d) – shouldn't be any horizontals so answer = (b)
- {made no difference whether it was a V-flip or a rotation as 3<sup>rd</sup> figure was symmetrical}

- Q15** (d) : rotates 90° anti-clockwise and letter moves
- line figure has rotated 90° anti-clockwise – rule out (b) & (e)
  - letter should be a Z so rule out (a) & compare (c) & (d)
  - letter should be at the right so answer = (d)

- Q16** (d) : shading swaps; top element to back, external bits lost or detached
- shading swaps to lower segment – rule out (e)
  - top element loses bit on the left – rule out (c)
  - top element's right section gets detached – rule out (a) & (b) leaving answer = (d)

### Section 2 : Matrix

- Q1** (c) : same as column 1; flip of column 2
- 3<sup>rd</sup> columns are same as column 1 – should be right pointing triangle rule out (a) (b) & (d)
  - compare (c) & (e) – shading wrong in (e) so answer = (c)

- Q2** (d) : right diagonals give type of figure; row gives the number 4, diamond of stars
- right diagonals show what type of figure – need little stars so rule out (b)
  - numbers the same in rows – need 4 stars so rule out (c) & (e)
  - compare (a) & (d) – position of stars at corners of polygon to left so answer = (d)

- Q3** (d) : top and bottom are same; middle is a V- flip and colour swap
- confusing – top & bottom rows are exactly the same but that doesn't help