**1** (a) Factorise $x^2 - x - 42$

.....

**(2)**

**(Total for Question 1 is 2 marks)**

**2** (b) Factorise fully $16m^3g^3 + 24m^2g^5$

.....

**(2)**

(c) (i) Factorise $y^2 - 2y - 48$

.....

**(2)**

(ii) Hence, solve $y^2 - 2y - 48 = 0$

.....

**(1)**

**(Total for Question 2 is 5 marks)**

**3** (b) Factorise fully $9ef - 12f$

.....

**(2)**

**(Total for Question 3 is 2 marks)**

**4** (b) Factorise fully $5y + 20y^2$

.....

**(2)**

**(Total for Question 4 is 2 marks)**

**5** (a) Factorise fully $25a^4c^7d + 45a^9c^3h$

.....

**(2)**

**(Total for Question 5 is 2 marks)**

**6** (i) Factorise $x^2 + 2x - 24$

.....

**(2)**

(ii) Hence solve $x^2 + 2x - 24 = 0$

.....

**(1)**

**(Total for Question 6 is 3 marks)**

**7** (c) Factorise $x^2 - 11x + 24$

.....

**(2)**

**(Total for Question 7 is 2 marks)**

**8** (b) Factorise fully $8p^2 - 2p$

.....

**(2)**

**(Total for Question 8 is 2 marks)**

**9** (a) Factorise fully $15y^4 + 20uy^3$

.....

**(2)**

**(Total for Question 9 is 2 marks)**

**10** (b) (i) Factorise $x^2 + 5x - 36$

.....

**(2)**

(ii) Hence, solve $x^2 + 5x - 36 = 0$

.....

**(1)**

**(Total for Question 10 is 3 marks)**

**11** (b) (i) Factorise $x^2 + 8x - 9$

.....

**(2)**

(ii) Hence, solve $x^2 + 8x - 9 = 0$

.....

**(1)**

**(Total for Question 11 is 3 marks)**

**12** (d) Factorise fully $10c^3d^2 + 15cd^4$

.....

**(2)**

**(Total for Question 12 is 2 marks)**

**13** (a) Factorise $9x^2 - 4y^2$

.....

**(2)**

**(Total for Question 13 is 2 marks)**

**14** (i) Factorise $x^2 + 5x - 24$

.....

**(2)**

(ii) Hence, solve $x^2 + 5x - 24 = 0$

.....

**(1)**

**(Total for Question 14 is 3 marks)**

**15** (c) Factorise $n^2 - 7n + 12$

.....

**(2)**

**(Total for Question 15 is 2 marks)**

**16** (b) (i) Factorise $y^2 - 2y - 35$

.....

**(2)**

(ii) Hence, solve $y^2 - 2y - 35 = 0$

.....

**(1)**

**(Total for Question 16 is 3 marks)**

**17** (b) Factorise fully $15b^5c - 35b^3c^9$

.....

**(2)**

**(Total for Question 17 is 2 marks)**

**18** (a) Factorise fully $18c^3d^2 - 21c^2$

.....

**(2)**

(b) (i) Factorise $y^2 - 3y - 18$

.....

**(2)**

(ii) Hence, solve $y^2 - 3y - 18 = 0$

.....

**(1)**

**(Total for Question 18 is 5 marks)**

**19** (a) Factorise $y^2 - 2y - 48$

.....

**(2)**

**(Total for Question 19 is 2 marks)**

**20** (c) Factorise fully $14x^2y^4 + 21x^3y^2$

.....

**(2)**

**(Total for Question 20 is 2 marks)**

**21** (b) Factorise $y^2 - 9y + 20$

.....

**(2)**

**(Total for Question 21 is 2 marks)**

**22** (c) Factorise fully $16a^2b^3 + 20a^3b$

.....

**(2)**

(d) (i) Factorise $x^2 + 9x - 22$

.....

**(2)**

(ii) Hence solve $x^2 + 9x - 22 = 0$

.....

**(1)**

**(Total for Question 22 is 5 marks)**

**23** Factorise fully $50g^2 - 18$

.....

**(Total for Question 23 is 3 marks)**