

1022) Bond Price = PV of all coupon payments and the redemption value

$$P = F r a_{\overline{n}|i} + C v_i^n$$

Given:

$$F = 1000$$

semi-annual coupon  $r$

$$C v_i^n = 381.50$$

$$\frac{r}{i} = 1.03125$$

$$v^n = 0.5889$$

Find  $P$

$$P = 1000 r a_{\overline{2n}|i} + 381.50$$

$$P = 1000 r \left( \frac{1 - v^{2n}}{i} \right) + 381.50$$

$$= 1000 \left( \frac{r}{i} \right) (1 - v^{2n}) + 381.50$$

$$= 1000 (1.03125) (1 - (0.5889)^2) + 381.5$$

$$= 673.6092 + 381.50$$

$$\boxed{= 1055.11}$$

D

$$v^n = 0.5889$$

$$v^{2n} = (0.5889)^2$$