

Question 3. (20 Marks)**(a) (i) Advantages:**

1. The firm has a relatively low after-tax cost due to the tax deductibility of interest.
2. The firm has increased earnings per share possible through financial leverage.
3. This type of financing allows the firm's owners to maintain greater control over the firm.

Disadvantages:

1. This type of financing can increase the financial risk of the firm.
2. Restrictions may be placed on the firm by the lenders. **(4 marks)**

- (ii)** The value of any asset is based on the expected future benefits that the owner will receive over the life of the asset. The cash flows are derived from increased revenues and/or reduced costs plus any salvage value received from the sale of the asset. The value of a financial asset is based on the expected cash flows the asset will generate for the owner during the holding period. These payments are usually dividend payments or interest received while the asset is owned plus any money received when the asset is sold **(4 marks)**

- (iii)** Price and yield move in opposite directions. If interest rates decrease, the price of the bond will increase. This is because the fixed coupon payments determined by the fixed coupon rate are more valuable when interest rates fall. Thus, the price of the bond increases. With a convertible bond, the price is no longer just determined by how interest rates change. This is because the value of the bond will be determined by its conversion value if the conversion value is greater than the present value of all coupon and principal payments. **(4 marks)**

- (b) (i)** $P = \$PAR \times PVIF(9\%, 5\text{yrs})$
 $= \$1000(0.6499) = \649.90 **(2 marks)**

- (ii)** $D = .0625(\$75) = \4.69
 $P_0 = 4.69/0.095 = \$49.37.$ **(3 marks)**

- (iii)** $P_0 = [\$CPN \times PVIFA(6\%, 20)] + [\$PAR \times PVIF(6\%, 20)]$
 $= \$50(11.4699) + \$1000(0.3118) = \$885.30$ **(3 marks)**