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FI 302 Fall 2025 Whaley

Exam 2

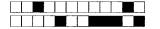
Important Instruction

- 1. Write your name in the space provided below and then bubble in your CWID in the grid below (failure to do so will result in an unprocessed exam and a five percentage point penalty).
- 2. Please read each question carefully then bubble in the correct response in the space provided. I would advise filling in the entire space to ensure a proper reading. Please do not mark any box that you do not wish to answer (this includes "scratching" out answer choices).
- 3. There are 31 questions total. Question 1-20 are worth 2 points each, and questions 21-31 are worth 6 points each.
- 4. You may use a calculator(s) if you wish (a financial calculator is fine).

 ↑ Please write your name in the box above. ← Please enter your CWID in the boxes on the left.
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You have 75 minutes to complete the exam. When finished, please bring your exam down to the front and present your student ID.

Test questions begin on the next page. Make sure you have/answer 31 questions. Good luck!



	The ionow questions are problems worth 2 points each.
X	Question 1 To find the present value of a series of uneven cash flows, you treat each cash flow as a/an and then them together.
0/2	annuity; add finite series; multiply Lump sum; add perpetuity; multiply
	Question 2 Which of the following is NOT an example of annuity cash flows?
2/2	 7 ☐ The \$3.50 you pay every morning for a bagel and coffee as you run to your first morning class ✓ ☐ The university tuition bill you pay every month that is always the same ☐ All of these examples are annuity cash flows.
	√Question 3 A stream of equal cash payments lasting forever is termed:
2/2	a perpetuity. an installment plan. an annuity due. an annuity.
	√Question 4 A/An is a series of equal beginning-of-the-period cash flows.
2/2	annuity due None of these ordinary annuity perpetuity due
K	Question 5 Which one of the following will increase the present value of an annuity, other things equal?
2/2	☐ Increasing the interest rate ☐ Decreasing the number of payments ☐ Decreasing the amount of the payment ☐ Decreasing the interest rate
	✓ Question 6 Which of the following statements is TRUE for the borrower of a loan?
2/2	 By DECREASING the frequency of payments on a loan, you REDUCE your total cash outflow on that loan. By INCREASING the frequency of payments on a loan, you INCREASE your total cash outflow on that loan.
-, -	By INCREASING the frequency of payments on a loan, you REDUCE your total cash outflow on that loan. None of the above are true.

	Question 7 Which of the following loan structures results in the lowest possibly interest payment to the lender?
	to the lender? Amortized loan
2/2	Discount loan
2/2	Rolling balance loan
•	Interest only loan
	Question 8 Amortization is effectively turning a loan into a/an:
	annuity
2/2	series of increasing payments
	series of decreasing payments
	lump-sum payment
女	J Question 9 Given the future value, which of the following will contribute to a lower present value?
	Less frequent discounting
2/2	Lower discount factor
	Fewer time periods
	Higher discount rate
	Question 10 Banks often advertise the on loans because it is typically lower than the
	APR; EAR
2/2	EAR; APY
2/2	EAR; APR
	APY; EAR
	Question 11 A bond's par value can also be called its:
	market value.
2/2	face value.
2/2	coupon payment.
	present value.
40	
*	Question 12 Periodic receipts of interest by the bondholder are known as:
	coupon payments.
2/2	principal payments.
	the coupon rate.
	the default premium.
X	Question 13 Investors who purchase bonds having lower credit ratings should expect:
	lower coupon payments.
/2	higher default possibilities.
, –	lower yields to maturity.
	higher purchase prices.
	p ve >
	0 11 V C = V + L
	Pul c = y+m
	VIS ~

	Question 14 The discount rate that makes the present value of a bond's payments equal to its price is termed the:	
0/2	yield to maturity. current yield. coupon rate.	
	dividend yield. Question 15 If the federal reserve increases interest rates, we would expect bond prices to and yields to fall; fall	e end
2/2	fall; fall fall; rise rise; fall	
	$\sqrt{\frac{\text{Question 16}}{\text{Question 16}}}$ What happens to a discount bond as the time to maturity decreases?	
2/2	 ☐ The coupon rate increases. ☐ The coupon rate decreases. ☐ The bond price decreases. ⚠ The bond price increases. 	
	Question 17 Which type of bond is certain to provide a capital loss if held to maturity?	
2/2	Premium bond Zero-coupon bond Junk bond Discount bond	
水	Question 18 Which one of the following bonds would be likely to exhibit a greater degree of interest rate risk?	
	Azero-coupon bond with 20 years until maturity Azero-coupon bond with 30 years until maturity	
0/2	A coupon-paying bond with 20 years until maturity A floating-rate bond with 20 years until maturity	
包	Question 19 AS CFO of Costco Wholesale, your treasurer just informed you that the \$5 billion, 10-year, semi-annual bond issuance you are about to sell has an expected yield to maturity of 8%. What coupon rate do you set for the bond's indenture?	
0/2	What coupon rate do you set for the bond's indenture? 4%	
The state of the s	$P_{y} = 2$ $pv = 4.5 \text{ Lillion}$	

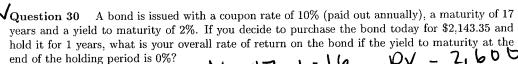
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	Question 20 What are the conditions imposed on a debt issuer that are designed to protect bondholders?
	Collateral agreements
2/2	☐ Vanilla wrappers ☐ Default provisions
Ť	Protective covenants

	The follow questions are problems worth	n 6 point	s each.							
	Question 21 Suppose you buy a home and annual interest rate of 3.00% (compounded n about how increasing your monthly payment of pay 10% more each month than what the ban how many years will you pay off the loan?	borrow \$ nonthly). can save y nk suggest	148,000 t You recover both s your page	all your FI of time and mo ayment shou	oney. N	You decide Given thi	ed to is, in	623.0	17 3.97:	r
	29.8	-		2:36	, 0	PIVIE	•	· / - /		.)
	22.5	1/4 :	- 3			CV=	G	-686	.37136	7
6/6	25.9	-				V - V				
0/0	34.3	414	= 12							
	39.4	bv :	148	1, 200						
	Valuestion 22 Kim decides early in her caree Kim chooses to put away \$5,775 of earnings a money will be in Kim's retirement account i annual rate of 6.1%?	at the end n twenty	of each	year for twe her investme PM+	enty yea ent acc • 9	ounts earn	ns an			
	\$946,980	6.1	ı	EA:	•	214,	735	1		
	U-10,033									
6/6	\$102,255 \$450.043	= 1								
	\$450,943 \$214,735	A								
	FV		# 0.000.00	nn stata latt	orul T	he lottery	com-	N= 25		
	mission offers you the choice of \$127,000 per of \$1,456,000 If your intentions are to save a flow or lump-sum) for retirement in an accounshould you choose?	year for 2 ull of the l nt that ear	25 years lottery w rns 14.00	or a one-tim innings (reg % annually,	ardless which	p-sum pay of annua payment o	l cash	1 = 14 2 : 1	1	
	Choose the annual payment because t lump-sum payment.							7 ·	ر اهای 17.	1.18
	Take the lump-sum payment now because the lump-sum payment.							bM+ b1=8	- 177.5	<i>0</i> 00
6/6	You are indifferent between the lump-s the annuity is less than the lump-sum	payment.							2	
	You are indifferent between the lump-st the annuity is greater than the lump-st	um payme	ent.					tn=	O	
	Take the lump-sum payment now becalump-sum payment.	ause the p	oresent va	lue of the a	amunty	is less th	an one			
	Question 24 The 17th National Bank of of \$27,000 The account carries a 6.00% API how much interest have you paid and what is	R with mo	onthly co	mpounding. ve annual ra	. At tn ate?	ie ena oi .	mount 1 year,			
	□ \$1,448 , 7.09%	2 =	(,	APR M)	-1				
6/6	\$1,665 , 7.09%	k:								
	11,259, 7.09% Interest = , Q-6	17	x i	7,061	0					
	pai d							•		
	· paid = 1,1	065								

	J	Question 25 You are considering salesman states that you can purch make monthly installment payments is 11.00% annually. What is the preoption should you choose?	of \$1,869 for 5 years. Your company	or pay nothing today and ay's current financing rate
6/6	, ,	\$113,655, so you should choose \$85,940, so you should elect th \$85,940, so you should choose \$98,830, so you should choose \$113,655, so you should elect the	to pay the full price today. to pay the full price today.	plan and which payment $N = 5 \times 12 = 60$ $V = 6 \times 6$
6/6	Ý	Question 26 Pear Inc. is issuing a bond's par value is \$1,000 and the coof this bond, using semiannual comp \$222 \$143 \$534 \$93 \$344	urrent yield to maturity is 5.4% . W	That is the expected price
6/6 -	,	Question 27 Dunder Mifflen just a coupon rate of 7.4%. The current bond and if the bond's current marks \$1,130 so you buy the bond \$1,494 so you do not buy the b \$1,299 so you do not buy the b \$1,299 so you buy the bond \$1,130 so you do not buy the b	et price is $$1.234$, what should you only $V = Z$ ond $Y = Q$	the intrinsic value of the do? $\psi = ? 1.299$
6/6	J	with a yield to maturity of 3.0%. Wh	0 PV=0 3 pm+=?	annual coupon bonds for the bond? No S × 1000 = 80
6/6		Question 29 Twelve years ago No annual coupon bonds each with a \$1,4 and the yield-to maturity on the NF price today for a NPC bond? \$1,800 \$2,161 \$2,593 \$1,500 \$1,250	rth Central Positronics (NPC) issue 000 face value. Since then, interest reconds-is now-3.4%. Given this N = 8 × 2 = 16	ates have generally fallen



] 19.51%

21.46%

23.61%

17.74%

25.97%

N= 177-1=16

少:0

P = 1

pmt = .1x1000 =100

FV= 1000 = 2000+(100) - 2143,3

Last year, the XYZ Corporation had issued 15.0% coupon (semi-annual), 20 year, Question 31 AA-rated bonds with a face value of \$1,000 to finance its business expansion. As of today, the market price of XYZ's bonds are \$1,500. What is the current yield to maturity and how can the c < ytva bonds be classified?

2147.35 ROR: 25.97



6/6

9.3%, so these are discount bonds

9.3%, so these are premium bonds

12.3%, so these are premium bonds

c > Ytm

N= 20-1= 10x1=38

1 2

N= 20 × 2= 40 OR 20-1=101×1=38

PV= 1500

rm+:,15 x 1000 = 150 : 75

E1= 1000

7:2

PV = 1500

pmt: 15 x 1000 = -150/2=-75

CN = 1000

$$N = \frac{1500}{500}$$
 $V = 1500$
 $V = 1000$
 $V = 1000 = \frac{150}{7} = 75$
 $V = 1000 = \frac{150}{7} = 75$
 $V = 1000 = \frac{150}{7} = 75$