Name: **Id#**

ISE 307, Term 173
ENGINEERING ECONOMIC ANALYSIS

Quiz# 4

Date: Monday, August 6, 2018

Q1. A machine purchased for $50,000 has a depreciable life of five years. It will have an expected salvage value of $5000 at the end of the depreciable life. Using the straight-line method, what is the book value at the end of year 2?

(a) $25,000
(b) $27,000
(c) $30,000
(d) $32,000

Q2. A machine purchased for $60,000 has a depreciable life of five years. It will have an expected salvage value of $10,000 at the end of the depreciable life. Using the double-declining balance (200% DB) method, what is the depreciation amount for year 4?

(a) $800
(b) $2,960
(c) $4,320
(d) $5,184

Q3. A machine purchased for $36,000, has a depreciable life of five years. It will have an expected salvage value of $1000 at the end of the depreciable life. Using the double-declining balance (200% DB) method with switching to straight line method, what is the depreciation amount for year 4?

(a) $3,110.4
(b) $3,388
(c) $2,888
(d) None of the given answers

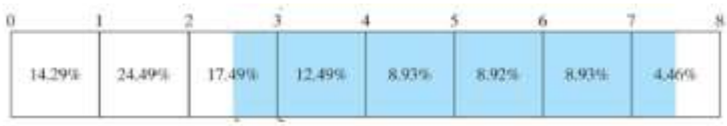
Q4. A truck for hauling coal has an estimated net cost of $50,000 and is expected to give service for 200,000 miles, resulting in $5,000 salvage value. The book value of the truck after it has been driven for 20,000 miles in the first year and 30,000 miles in the second year is:

(a) $11,250
(b) $12,500
(c) $37,500
(d) $38,750

Q5. Suppose that you placed a commercial building (warehouse) in service in May. The building depreciates in 39 years. The cost of the property is $300,000, which includes the $100,000 value of land. Determine the amount of depreciation that is allowed during the first year of ownership.

(a) $3,205.13
(b) $3,418.80
(c) $4,807.69
(d) $5,128.21

Q6. A company purchased a drill press priced at $170,000 in year 0. The company additionally incurred $30,000 for site preparation and labor to install the machine. The drill press was classified as a seven-year MACRS class property. The company is considering selling the drill press for $70,000 at the end of year 5. Compute the book value at the end of year 5 that should be used in calculating the taxable gains.



(a) $37,927.0
(b) $44,620.0
(c) $45,517.5
(d) $53,550.0

Q7. The average tax rate for a taxable income of $250,000 using the US Corporate tax schedule given below is around:

Taxable income	Tax rate	Tax computation
0-$50,000	15%	$0 + 0.15(D)
$50,001-$75,000	25%	$7,500 + 0.25 (D)
$75,001-$100,000	34%	$13,750 + 0.34 (D)
$100,001-$335,000	39%	$22,250 + 0.39 (D)

(a) $32.3%
(b) $34.0%
(c) $39.0%
(d) $40.4%

Q8. Given an asset that has a cost basis of $300,000 and was sold for $400,000. The book value for the asset at the time of sale was $100,000. Assume that the capital gain tax rate is 40% while the ordinary gain tax rate is 30%. Then, the net proceeds from this sale is:

(a) $100,000
(b) $200,000
(c) $300,000
(d) $400,000