Name: Id#

ISE 307, Term 173

ENGINEERING ECONOMIC ANALYSIS

Quiz# 4

 Date: Monday, August 6, 2018

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# **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.

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(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:

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(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