

## Chapter 5 Measurement TECM 118 Practice Test

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 1) Determine the number of significant digits in the following measurement number. 1) \_\_\_\_\_

275.6 m

- 2) Convert the following measurement number to the new unit as shown. Round each answer to the nearest one-hundredth of a unit, if necessary. 2) \_\_\_\_\_

7 lbs = ? kg

- 3) Convert the following measurement number to the new unit as shown. Round each answer to the nearest one-hundredth of a unit, if necessary. 3) \_\_\_\_\_

30 cm<sup>3</sup> = ? in.<sup>3</sup>

- 4) Perform the following calculation with measurement numbers. Round to the correct precision or accuracy. 4) \_\_\_\_\_

$$\frac{0.497 \text{ N}}{1.5 \text{ m} \times 9.0 \text{ m}}$$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 5) State the accuracy and precision of the following measurement number. 5) \_\_\_\_\_

0.045 amps

- A) Accuracy: 4, Precision: Nearest Amp
- B) Accuracy: 2, Precision: Nearest Thousandth
- C) Accuracy: 1, Precision: Nearest Hundredth
- D) Accuracy: 3, Precision: Nearest Tenth

- 6) Choose the closest estimate of the volume of a can of Coca-Cola. 6) \_\_\_\_\_

A) 100 ml

B) 0.5 liter

C) 1 liter

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

7) Convert the following measurement number to the new unit as shown.

7) \_\_\_\_\_

$$4 \text{ miles} = ? \text{ feet}$$

8) Convert the following measurement number to the new unit as shown.

8) \_\_\_\_\_

$$140 \text{ yds}^2 = ? \text{ ft}^2$$

9) Convert the following measurement number to the new unit as shown.

9) \_\_\_\_\_

$$156 \text{ in} = ? \text{ feet}$$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

10) Write the following equation as a unity fraction.

10) \_\_\_\_\_

$$1 \text{ rod} = 16.5 \text{ feet}$$

A)  $\frac{12 \text{ inches}}{1 \text{ foot}}$

B)  $\frac{1 \text{ rod}}{16.5 \text{ feet}}$

C)  $\frac{16.5 \text{ rods}}{1 \text{ foot}}$

D)  $\frac{1 \text{ yard}}{3 \text{ feet}}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

11) Convert the following measurement number to the new unit as shown. Round to the same number of significant digits as the original measurement.

11) \_\_\_\_\_

$$3640 \text{ mm}^2 = ? \text{ cm}^2$$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

12) Choose the closest estimate of the length of a football field.

12) \_\_\_\_\_

A) 90 m

B) 2 km

C) 1000 cm

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 13) Perform the following calculation with measurement numbers. Round to the correct precision or accuracy. 13) \_\_\_\_\_

$$18.7 \text{ m} \times 48.2 \text{ m}$$

- 14) Perform the following calculation with measurement numbers. Round to the correct precision or accuracy. 14) \_\_\_\_\_

$$0.63461 \text{ in} - 0.214 \text{ in}$$

- 15) Convert the following measurement number to the new unit as shown. 15) \_\_\_\_\_

$$40 \frac{\text{mi}}{\text{hr}} = ? \frac{\text{ft}}{\text{sec}}$$

- 16) Convert the following measurement number to the new unit as shown. Round to the same number of significant digits as the original measurement. 16) \_\_\_\_\_

$$5.4 \text{ km} = ? \text{ m}$$

- 17) Convert the following measurement number to the new unit as shown. Round to the same number of significant digits as the original measurement. 17) \_\_\_\_\_

$$8300 \frac{\text{ft}}{\text{min}} = ? \frac{\text{ft}}{\text{sec}}$$

18) Convert the following measurement number to the new unit as shown. Round each answer to the nearest one-hundredth of a unit, if necessary. 18) \_\_\_\_\_

$$13 \text{ yds}^3 = ? \text{ m}^3$$

19) Perform the following calculation with measurement numbers. Round to the correct precision or accuracy. 19) \_\_\_\_\_

$$132.5 \text{ w} + 15.2 \text{ w} + 1.417 \text{ w}$$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

20) Choose the closest estimate of your weight. 20) \_\_\_\_\_

A) 100 kg

B) 3 kg

C) 1000 kg

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

21) Convert the following measurement number to the new unit as shown. Round each answer to the nearest one-hundredth of a unit, if necessary. 21) \_\_\_\_\_

$$18 \text{ miles} = ? \text{ km}$$

22) Convert the following measurement number to the new unit as shown. Round to the same number of significant digits as the original measurement. 22) \_\_\_\_\_

$$765 \text{ g} = ? \text{ kg}$$

23) Express the following to the nearest 16<sup>th</sup> of an inch.

0.398 in.

23) \_\_\_\_\_

24) 3.5 liters = \_\_\_\_\_ qt

24) \_\_\_\_\_

25) 69 sq in. ÷ 3.6 in. =

25) \_\_\_\_\_

26) 8 lb 3 oz = \_\_\_\_\_ g

26) \_\_\_\_\_

27) What size wrench, to the nearest 16th of an inch, will fit a bolt 0.784 in. in diameter ?

27) \_\_\_\_\_

28) 6.5 sq yd = \_\_\_\_\_ sq ft

28) \_\_\_\_\_

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

29) 62°F = \_\_\_\_\_ °C

29) \_\_\_\_\_

- A) about 22 degrees Celsius
- C) a little over 16 degrees Celsius

- B) a little under 16 degrees Celsius
- D) about 17 degrees Celsius

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

30)  $8\frac{3}{4}$  sq yd = \_\_\_\_\_ sq m

30) \_\_\_\_\_

31) A car traveling 68 mph for  $7\frac{1}{2}$  hours will travel how far? 31) \_\_\_\_\_

32) If a city's dimensions are 30 miles by 25 miles, how many acres is the city? 32) \_\_\_\_\_

33) How many pieces 9 inches long can be cut from a piece of wood that is 21 feet long?  
(Assume that there is no waste in cutting.) 33) \_\_\_\_\_

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

34) A small picture frame has measurements of  $8\frac{1}{2}$  in. by 11 in. What are its measurements in centimeters? 34) \_\_\_\_\_

- A) 21.59 cm by 27.94 cm
- C) 5.35 cm by 8.78 cm

- B) 18.62 cm by 25.24 cm
- D) 23.84 cm by 29.45 cm

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

35) A car travels 152 miles in 2 hours and 30 minutes. What is its average speed in km/hr?  
(Round to the nearest tenth.) 35) \_\_\_\_\_

36) 5 ft 4 in. = \_\_\_\_\_ in. 36) \_\_\_\_\_

37) A hot air balloon has a volume of 130,000 cu ft. If it is being filled at a rate of 2070 cubic yards per hour, how long will it take to fill the balloon? Round to the nearest hour. 37) \_\_\_\_\_

38) 56,100 ft = \_\_\_\_\_ mi 38) \_\_\_\_\_

39) 8800 mg = \_\_\_\_\_ g

39) \_\_\_\_\_

40) 144 mi = \_\_\_\_\_ km

40) \_\_\_\_\_

Round the answer to the nearest tenth of a kilometer.

## Answer Key

### Chapter 5 Measurement TECM 118 Practice Test

- 1) 4
- 2) 3.18 kg
- 3) 1.83 in.<sup>3</sup>
- 4)  $0.037 \frac{\text{N}}{\text{m}^2}$
- 5) B
- 6) B
- 7) 26,400 feet
- 8) 1170 ft<sup>2</sup>
- 9) 12 feet
- 10) B
- 11) 36.4 cm<sup>2</sup>
- 12) A
- 13) 582 m<sup>2</sup>
- 14) 0.421 in
- 15)  $51.345 \frac{\text{ft}}{\text{sec}}$
- 16) 5400 m
- 17)  $138.4 \frac{\text{ft}}{\text{sec}}$
- 18) 9.94 m<sup>3</sup>
- 19) 149.1 w
- 20) B
- 21) 28.97 km
- 22) 0.765 kg
- 23)  $\frac{3}{8}$  in.
- 24) about 3.698 qt
- 25) 19.17 in.
- 26) about 3714 g
- 27) 13/16
- 28) 58.5 sq ft
- 29) D
- 30) 7.32 sq m
- 31) 510 miles
- 32) 480,000 acres
- 33) 28 pieces
- 34) A
- 35) 97.8 km/hr
- 36) 64 in.
- 37) 2 hours
- 38) 10.625 miles
- 39) 8.8 g
- 40) 231.7 km