FINANCIAL MATH & ANALYSIS (12)

Sponsored by the American Institute for Certified Public Accountants.

AICPA®

—OPEN EVENT—

Regional– 2010

TOTAL POINTS (50 @ 10 points)   _____ (500)

Failure to adhere to any of the following rules will result in disqualification:
1. ***Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.***
2. ***No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.***
3. ***Electronic devices will be monitored according to ACT standards.***

GENERAL INSTRUCTIONS

The number of decimal places used in calculations and in the reporting of your answers is very important. Below are guidelines to use as you take this test. If a problem varies from these guidelines, it will be noted in the problem.

PAYROLL QUESTIONS

> ➢ Do not round the overtime rate.

> ➢ Overtime is paid for any hours over 40 worked in a week, *unless otherwise stated in the problem.*

> ➢ Normal work week is 40 hours, *unless otherwise stated in the problem.*

PERCENT PROBLEMS

> ➢ Round to the nearest tenth percent when working with percents.

> > ***Example:*** Use 2.3% NOT 2%
> > ***Example:*** An answer of .9638 should be written as 96.4%

FRACTIONS

> ➢ All problems with fractions are to be reduced to their lowest terms.

DOLLAR AMOUNTS

> ➢ All dollar amounts must be rounded to the second place (nearest cent).
> ➢ Except overtime rate as stated above.

> > ***Example:*** $35.9765 to $35.98

DO NOT **use test booklet for scrap paper.**

Mark your answer on the Scantron form provided.

Unless otherwise directed, round all answers to two decimal places.

1. 12% of 21 is
   A. 2.4
   B. 2.5
   C. 2.6
   D. 3

2. 2 ½ % of 3861 is
   A. 9.6
   B. 96.5
   C. 965.3
   D. 970

3. You spend 15% of each 24-hour day on the telephone. To the nearest hour, how long do you spend on the phone?
   A. 1 hour
   B. 3 hours
   C. 4 hours
   D. 7 hours

4. How many square feet is a room that measures 6' x 8'?
   A. 24 square feet
   B. 36 square feet
   C. 40 square feet
   D. 48 square feet

5. If you are traveling 60 mph, how long, to the nearest hour, will it take you to go 953 miles?
   A. 7 hours
   B. 16 hours
   C. 20 hours
   D. 24 hours

6. If you are traveling 60 mph, how many miles will you travel in 90 minutes?
   A. 30 miles
   B. 45 miles
   C. 60 miles
   D. 90 miles

7. If it is 8:10 AM in New York City, what time is it in Chicago?
   A. 6:10 AM
   B. 7:10 AM
   C. 8:10 AM
   D. 9:10 AM

8. If it is noon in Philadelphia, what time is it in San Francisco?
    A. 7:00 AM
    B. 8:00 AM
    C. 9:00 AM
    D. 10:00 AM

9. If it is 3pm in Denver, what time is it in Boston?
    A. 4:00 PM
    B. 5:00 PM
    C. 6:00 PM
    D. 7:00 PM

10. You are paid $5.15 per hour. You worked 22 ½ hours this week. What is your gross pay?
    A. $115.88
    B. $116.00
    C. $1015.88
    D. $1100.00

11. Your monthly salary is $2,235.00. What is your annual salary?
    A. $26,820
    B. $27,000
    C. $28,620
    D. $29,000

12. You worked 54 hours in one week. You are paid $9 per hour. What is your gross pay?
    A. $549
    B. $486
    C. $696
    D. $725

13. Write the following as an improper fraction: 3 15/16
    A. 37/16
    B. 53/16
    C. 63/16
    D. 68/16

14. Complete the equivalent fraction (example: ¾= 15/20): 2/9 = ___/27
    A. 6
    B. 8
    C. 10
    D. 12

15. Add 68+ 23+ 189=
    A. 280
    B. 290
    C. 350
    D. 416

16. A person borrowed $4,000 at 12% interest for 9 months. What is the amount of interest?
    A. $212
    B. $260
    C. $360
    D. $480

17. Joseph is paid 12 cents for each apple he picks. If he picks 300 apples on Monday, how much can he earn that day?
    A. $5.00
    B. $12.00
    C. $36.00
    D. $45.00

18. If you own 15 computer games and your friend has 21, what percent of the total do you own?
    A. 14.5%
    B. 40%
    C. 41.7%
    D. 42%

19. An advertising agency and a salesperson split a 6% commission evenly. The salesperson receives a $1,500 commission. What was the sale price of the advertising?
    A. $25,000
    B. $35,000
    C. $50,000
    D. $100,000

20. Carl's average gas bill was $66. The gas company lowered prices by 2.5%. How much will Carl's monthly bill average now?
    A. $61.80
    B. $62.50
    C. $63.00
    D. $64.35

21 . If an item sells for $23.99 and has a sale price of 25% off, what is the cost of the item on sale?
    A. $14.49
    B. $17.99
    C. $18.49
    D. $19.99

22. The company budget is divided into five categories. Calculate the percentage of the budget for Human Resources if
    Staffing= 40%
    Supplies= 20%
    Insurance= 10%
    Development= 20.4%

    A. 6.9%
    B. 8.6%
    C. 9.6%
    D. 10.6%

23. You worked 33 hours this week. You are paid $8.75 per hour. What is your gross pay?
    A. $288.75
    B. $298.75
    C. $300.00
    D. $348.00

24. Plastic wrap can be purchased at $1.09 for 100 feet, $1.59 for 200 feet, or $1.79 for 250 feet. Which is the best buy?
    A. 100 feet at $1.09
    B. 200 feet at $1.59
    C. both 100 feet at $1.09 and 200 feet at $1.59
    D. 250 feet at $179

25. 1,006,782 written in words is
    A. one hundred six thousand and seven hundred eighty-two
    B. one million, six thousand, seven hundred eighty-two
    C. one hundred thousand, six hundred and eighty-two
    D. none of the above

26. Divide 1/8 by 1/4
    A. 1/32
    B. 1/2
    C. 3/8
    D. 4/8

27. 1, 340,496 rounded to the nearest 1,000 is:
    A. 1,340,500
    B. 1,340,000
    C. 1,341,000
    D. 1,350,000

28. Stanley received a $100 gift certificate on his birthday. How much would he have left if he purchased the following:
    3 shirts @ $7.25 each
    4 pairs of socks @ $1.50 per pair
    1 pair of shoes @ 27.55
    A. $35.50
    B. $44.70
    C. $55.30
    D. $60.50

29. The electricity bills for the last six months of the year were as follows:
      July $54.16
      August $61.24
      September $68.05
      October $83.37
      November $94.40
      December $107.86
      What was the average monthly bill for the six-month period?

      A. $78.18
      B. $84.23
      C. $175.71
      D. $469.08

30. You bought two mats of different lengths. One mat is 1 2/3 yards long and the other is 1 8/9 yards long. How much must be cut from the longer mat to make both mats the same in length.
      A. 8 inches
      B. 2/9 yard
      C. 2/3 foot
      D. all of the above

31. Solve the following: 5/37 divided by 5 1/4
      A. 152/147
      B. 28 1/2
      C. 20/777
      D. 8/35

32. What is the maturity date for a 60-day note dated November 11, 2009?
      A. January 9, 2010
      B. January 10, 2010
      C. January 11, 2010
      D. January 12, 2010

33. Eight and one-half percent is equal to which of the following:
      A. 8.5
      B. .85
      C. 85
      D. .085

34. Convert 2 3/8 to a percent
      A. 2.375%
      B. 23.75%.
      C. 237.5%
      D. none of the above

35. A ream of paper contains 500 sheets. A box of 5,000 sheets weighs 40 lbs.   How much would three reams of paper weigh?
    A. 2.5 lbs.
    B. 4 lbs.
    C. 10 lbs.
    D. 12 lbs.

36. What is the maturity date for a 60-day note dated September 16, 2009?
    A. November 15, 2009
    B. December 16, 2009
    C. January 12, 2010
    D. January 14, 2010

37. Add the following: .57 + 296.02 + 16.08 + 7.2 + 145
    A. 298.37
    B. 397.58
    C. 460
    D. 464.87

38. Which of the following numbers is the largest?
    A. 7/8
    B. .75
    C. .350
    D. 13/16

39. Jonathan receives a 11.5% commission for sales to high schools and organizations. If Jonathan sells $840 worth of supplies in one week, what is his commission?
    A. $96.60
    B. $99.84
    C. $102.24
    D. none of the above

40. Sales tax of 5.75% is added to your purchase of an item priced at $182.69. What is the total amount of the purchase?
    A. $193.19
    B. $197.30
    C. $199.45
    D. $201.56

41. When written as a decimal, 3/20% would be:
    A. .0015
    B. .066
    C. .15
    D. .66

42. Multiply: 5.86 x 6.2
    A. 33.66
    B. 36
    C. 36.33
    D. 37

43. Reduce the following fraction to its lowest term: 74/6
     A. 6 8/6
     B. 10 8/6
     C. 12 1/3
     D. 12 2/3

44. Solve: 150% of $84
     A. $78
     B. $89
     C. $126
     D. $1,440

45. A recipe calls for ½ cup sugar and 3/8 cup flour. You are doubling the recipe. How much flour will you need?
     A. ½ cup
     B. ¾ cup
     C. 1 cup
     D. 1 ¾ cup

46. Expenses for Franklin Marketing total $78,739.66 for the quarter. Payroll for the quarter is $42,163.00. Payroll is what percent of total expenses?
     A. 35.5%
     B. 53.5%
     C. 54.35%
     D. 55.5%

47. What is 3.75 written as a fraction?
     A. 375/10
     B. 375/1000
     C. 3/3.5
     D. 3 3/4

48. Add and reduce to the lowest terms: 4 ¾ + 3 7/8 +10 ½ + 5 ½
     A. 22 3/4
     B. 22 5/24
     C. 24 1/4
     D. 24 5/8

49. An employee earning $380.00 weekly received a 15% increase. The new weekly salary is:
     A. $415
     B. $430
     C. $437
     D. $490

50. 1,844.9569 rounded to the nearest tenth is:
     A. 1844
     B. 1845
     C. 1844.9
     D. 1844.96

FINANCIAL MATH & ANALYSIS (12)

—OPEN EVENT—

KEY

Regional – 2010

TOTAL POINTS (50 @ 10 points)   _____(500)

Judges/Graders:

Please double-check and verify all scores!

MULTIPLE CHOICE

1.	B		26.	B
2.	B		27.	B
3.	C		28.	B
4.	D		29.	A
5.	B		30.	B
6.	D		31.	C
7.	B		32.	B
8.	C		33.	D
9.	B		34.	C
10.	A		35.	D
11.	A		36.	A
12.	A		37.	D
13.	C		38.	A
14.	A		39.	A
15.	A		40.	A
16.	C		41.	A
17.	C		42.	C
18.	C		43.	C
19.	C		44.	C
20.	D		45.	B
21.	B		46.	B
22.	C		47.	D
23.	A		48.	D
24.	D		49.	C
25.	B		50.	B