



**United Bank S.C**  
**HRM Department**  
**Math Exam Answer Sheet**

Date:- 21/10/2015

Job Title: - Junior Teller Automated

Name \_\_\_\_\_ Field of Study \_\_\_\_\_

- |           |           |
|-----------|-----------|
| 1. _____  | 14. _____ |
| 2. _____  | 15. _____ |
| 3. _____  | 16. _____ |
| 4. _____  | 17. _____ |
| 5. _____  | 18. _____ |
| 6. _____  | 19. _____ |
| 7. _____  | 20. _____ |
| 8. _____  | 21. _____ |
| 9. _____  | 22. _____ |
| 10. _____ | 23. _____ |
| 11. _____ | 24. _____ |
| 12. _____ | 25. _____ |
| 13. _____ |           |

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Mark Out of 25 \_\_\_\_\_

Corrected by (Name & Sign.) \_\_\_\_\_

**United Bank S.C.**  
**Human Resource Management Department**  
**Math Exam for (Junior Teller Automated Position) Applicants**

2/12/7

**Instruction I: Choose one best answer from the list and provide your answers in a separate answer sheet.**

**Note that use of any kind of calculator is prohibited.**

**Time Allotted: 2 hrs.**

1. A total of Birr 450 is divided into equal shares. If Kate receives four shares, Kevin receives three shares, and Anna receives the remaining two shares, how much money did Kevin receive?  
A. Birr 100      B. Birr 150      C. Birr 200      D. Birr 250
2. Woy. Helen paid Birr 48 for a jacket that was on sale for 25% of the original price. What was the original price of the jacket?  
A. Birr 60      B. Birr 72      C. Birr 96      D. Birr 192
3. In a hockey league, 87 players play on seven different teams. Each team has at least 12 players. What is the largest possible number of players on any one team?  
A. 13      B. 14      C. 15      D. 21
4. If  $n-5$  is an even integer, what is the next larger consecutive even integer?  
A.  $n-7$       B.  $n-3$       C.  $n-4$       D.  $n-2$
5. The expression  $(4a+2b) - (2a-3b) - (a-b)$  when simplified is  
A.  $6a+6b$       B.  $a+6b$       C.  $-2b$       D.  $6b$
6. The numbers of products a store sold on 4 consecutive days were  $x$ ,  $x+5$ ,  $x+3$  and  $x+12$ . If the daily average of the products sold was 13, what is the value of  $x$ ?  
A) 4      B) 6      C) 7      D) 8
7. If  $2z^2 - 5z + 30 < 2z^2 + 5z - 15$ , which of the following MUST be true?  
A.  $z=6$       B.  $z=4.5$       C.  $z < 4.5$       D.  $z > 4.5$
8. What is 2% of 7%?  
A. 0.014%      B. 0.09%      C. 0.14%      D. 1.4%
9. A quiz consists of true and false questions. The ratio of the number of true questions to the number of false questions is 4:3. About what percent of the questions are false?  
A. 43%      B. 57%      C. 67%      D. 83%

~~48-25+12=35~~

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10. Jack is now 7 times as old as Jill. If 10 years from now, he will be 3 times as old as Jill, how old is Jack now?  
 A. 14                      B. 21                      C. 28                      D. 35
11. What is  $z$  if 2.5% of  $z$  equals 75% of 50?  
 A. 10                      B. 25                      C. 50                      D. 1500
12. From 1999 to 2000, the computer sales increased by 40% and the printer sales decreased by 40%. The ratio of printer sales to computer sales in 2000 was how many times the ratio of printer sales to computer sales in 1999?  
 A.  $3/7$                       B.  $5/3$                       C.  $3/5$                       D. 1
13. In a class with 25 students, 13 learn French and 18 learn Spanish and 2 do not learn either. How many students learn both French and Spanish?  
 A) 7                      B) 8                      C) 9                      D) 10
14. If  $x + y - z = 5$  and  $x - y + z = 10$ , which of the following statements MUST be true?  
 I.  $y > z$   
 II.  $x > 5$   
 III.  $y > 5$   
 A. I only                      B. II only                      C. III only                      D. I and II only
15. A toy factory manufactures  $d$  dolls every hour. Each doll costs  $c$  cents. How much money will the factory spend in costs for manufacturing dolls in 7 hours and 30 minutes?  
 A.  $cd/750$                       B.  $15cd/100$                       C.  $cd/100$                       D.  $3cd/40$
16. The arithmetic mean (average) of five numbers is  $-5$ . If the sum of two of them is 50, what is the average of the other three?  
 A. 25                      B. 10                      C.  $-10$                       D.  $-25$
17. An agent receives a commission of 40 cents for every Birr 50 of business she procures. What percent is the agent's commission?  
 A. 0.8%                      B. 1%                      C. 1.25%                      D. 1.5%
18. In the figure, each of the four white "petals" is formed by the intersection of two semicircles. Each of the four semicircles is drawn with its center at the midpoint of each side of the square. If the length of the side of the square is 2, what is the total area of the shaded region excluding the petals?

$\frac{J}{7JL} = \frac{JL}{5JL}$   
 $2JL = 35L$

$25 + 18F = 25$   
 $F = 18F$   
 $2F = 2e$

$x + y - z = 5$   
 $x - y + z = 10$   
 $2x = 15$   
 $x = 7.5$



- A.  $8-2n$                       B.  $32-8n$                       C.  $4-n$                       D.  $1-n/4$

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19. An office requires  $P$  sheets of paper each month for each employee. If there are  $E$  employees in the office, for how many months will  $T$  sheets of paper last?  
 A.  $T/PE$       B.  $P/TE$       C.  $TPE$       D.  $TE/P$
20. A train travels from Athena to Barcena at a constant speed of  $v$  miles per hour. If the journey from Athena to Barcena takes  $t$  hours, how many miles did it cover in the first 10 minutes?  
 A.  $10vt$       B.  $vt/6$       C.  $vt$       D.  $v/6$

**Instruction II. Give short answer in a separate answer sheet provided**

21. A satellite in a circular orbit rotates around the Earth every 120 minutes. If the Earth's radius is 4000 miles at sea level, and the satellite's orbit is 400 miles above sea level, approximately what distance does the satellite travel in 40 minutes?
22. John buys 100 shares of stock at \$100 per share. The price goes up by 10% and he sells 50 shares. Then, prices drop by 10% and he sells his remaining 50 shares. How much did he get for the last 50?
23. Tickets to a play cost Birr 5 for adults and Birr 2 for children. If 1,750 tickets were sold for a total of Birr 7,100, how many children's tickets were sold?

5A  
2A  
1750  
7100  
24x1750

24.  $\clubsuit n$  denotes the number obtained when  $n$  is rounded to the nearest tenth. For example  
 $\clubsuit 4.31 = 4.3$   
 $\clubsuit 0.089 - \clubsuit 1.135 =$

$\frac{2}{4} \times 1750$

25. Half the people on a bus get off at each stop after the first, and no one gets on after the first stop. If only one person gets off at stop number 7, how many people got on at the first stop?

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 $5x + 2y = 7100$   
 $-5x + y = 2750$   
 $\hline$   
 $6y = 4350$   
 $-5x + 2750 = 7100$   
 $-5x = 4350$   
 $-3y = -1650$   
 $\hline$   
 $y = 550$

$k = 120m = 24$   
 $r = 4400$   
 $2k(120m) = 4400$   
 $300 = ?$   
 $B = washers = 100 \times 100$   
 $= 100 \times 100 - 1 = 10000 - 1$   
 $2(100 \times 100 - 100 \times 100 - 1)$   
 $0.089$   
 $-1.135$

