ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET BY CROSSING THE CORRESPONDING LETTER

Applied Math M.C.Q's

No. of Questions: 20 (from 1 to 20)　　　　　　　　　Time allowed: 30 Minutes

Questions on Page Nos: 1 To 4　　　　　　　　　　　Negative markings: Yes

----

Q1. Amir and Shahid invest in a business in ratio 3:2. If 5% of the total profit goes to charity and Amir's share in the remaining profit is Rs 855 then the total profit is:

A) Rs 1,425
B) Rs 1,537.50
C) Rs 1,500
D) Rs 1,576

Q2. Junaid Starts business with Rs 3,500 on January 1st 2013. After 5 months Hisham joins Junaid as a partner. At the end of the year (i.e. at the end of working day December 31st 2013) the profit is divided in the ratio 2:3 to Junaid and Hisham. What is Hisham's contribution in the capital?

A) Rs 7,500
B) Rs 8,500
C) Rs 8,000
D) Rs 9,000

Q3. If $\dfrac{(12)(22)(35)}{P}$ is an integer, which of the following cannot be the value of P?

A) 15
B) 50
C) 33
D) 28

Q4. Frances can complete a job in 12 hours, and Joan can complete the same job in 8 hours. Frances starts the job at 9:00 a.m. and stops working at 3:00 p.m. If Joan starts working at 4:00 p.m. to complete the job, at what time is the job finished?

A) 6:00 p.m.
B) 7:00 p.m.
C) 8:00 p.m.
D) 10:00 p.m.

Q5. A motorist travels 120 miles to his destination at the average speed of 60 miles per hour and returns to the starting point at the average speed of 40 miles per hour. His average speed for the entire trip is:

A) 45 mph
B) 40 mph
C) 50 mph
D) 48 mph

Q6. A used bicycle pump, for sale originally at $ 7.00, is discounted 20%. Because it does not sell, it is discounted an additional 10%. What is its new selling price?

A) $ 4.90
B) $ 5.00
C) $ 5.04
D) $ 5.21

Q7. In order to pass an examination, a student must correctly answer at least nine questions (which are equally weighted) in order to receive the minimum passing grade of 75%. How many questions are on the examination?

A) 12
B) 10
C) 8
D) 4

Q8. A plane flies from New York to Chicago (a distance of 1,600 miles) at 400 mph. Returning from Chicago to New York; it flies into a headwind and averages only 320 mph. How many hours in total was the plane in the air for the entire trip?

A) 3 hours
B) 5 hours
C) 7 hours
D) 9 hours

Q9. If X = 6, what is the value of $\frac{2XY - XY}{Y}$ (where Y is a positive number)?

A) –30
B) 6
C) 8
D) 30

Q10. The cost of one-family home was $ 120,000 in 1980. In 1988, the price had increased to $ 180,000. What was the percent increase in the cost of the home?

A) 60%
B) 50%
C) 55%
D) 40%

Q11. If "X" is a positive integer such that $X^2 + 5X - 14 = 0$, what is the value of X?

A) –7
B) –5
C) 0
D) 2

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET BY CROSSING THE CORRESPONDING LETTER

Q12. At a restaurant, you must choose an appetizer, a main course, and a dessert. If there are 2 possible appetizers, 3 possible main courses, and 5 possible desserts, how many different meals could you order?

A) 6
B) 10
C) 30
D) 60

Q13. The ratio of men to women in a room is 3 to 4. If there are 20 women, what is the number of men in the room?

A) 5
B) 10
C) 15
D) 20

Q14. If the average of 7 numbers is 5, what is the sum of the numbers?

A) 35
B) 40
C) 45
D) 50

Q15. A company's profits have doubled for each of the 4 years it has been in existence. If the total profits for the last 4 years were $ 30 million, what were the profits in the first year of operation?

A) $ 1 million
B) $ 2 million
C) $ 4 million
D) $ 4.5 million

Q16. $200^2 - 2\,(200)\,(199) + 199^2 =$

A) – 79,201
B) – 200
C) 1
D) 79,999

Q17. Approximate value of $\sqrt{1596}$ is

A) 37
B) 38
C) 39
D) 40

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET BY CROSSING THE CORRESPONDING LETTER

Q18. Over the course of soccer season, 30 percent of the players on a team scored goals. What is the ratio of players on the team who scored goals to those who did not?

A) 3 to 10
B) 1 to 3
C) 3 to 7
D) 1 to 1

Q19. $\dfrac{\left(\frac{3}{10}\right)(4)(0.8)}{0.32} =$

A) 0.96
B) 0.333
C) 3.0
D) 30

Q20. Laura borrowed $ 240, interest free, from her parents to pay for her college education. If she pays back 2 ½ percent of this amount quarterly, and has already paid $ 42.00, for how many months has she been paying back her loan?

A) 21
B) 19
C) 7
D) 6

If you finish before time is called, you may check your work on this section only.

(Stop. Do not turn over the next page until you are told to do so.)