

ENTRY TEST PAPER

- Use of calculator is not allowed
- Marks are shown in brackets in front of the questions
- Write the answers on the Answer Sheet provided and attach the Answer Sheet with this question paper
- Time Allowed : 1 hour 30 minutes

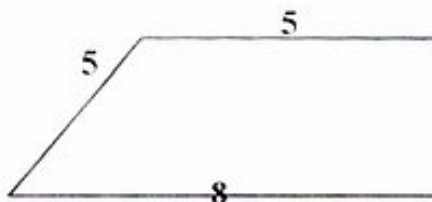
PART A

1. Fill in the blanks:

a) 5 is 20% of _____ (0.5)

b) $0.2 \times 0.2 =$ _____ (0.5)

2. Find the area of the shape:

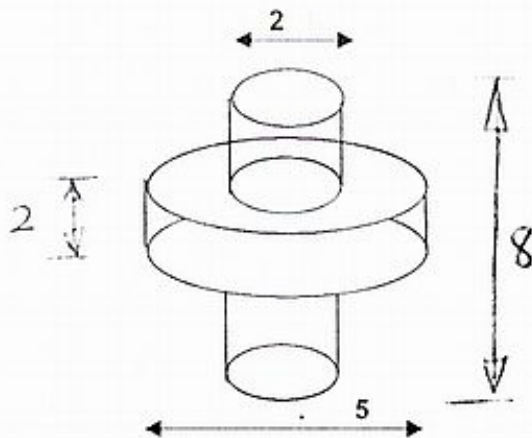


(1)

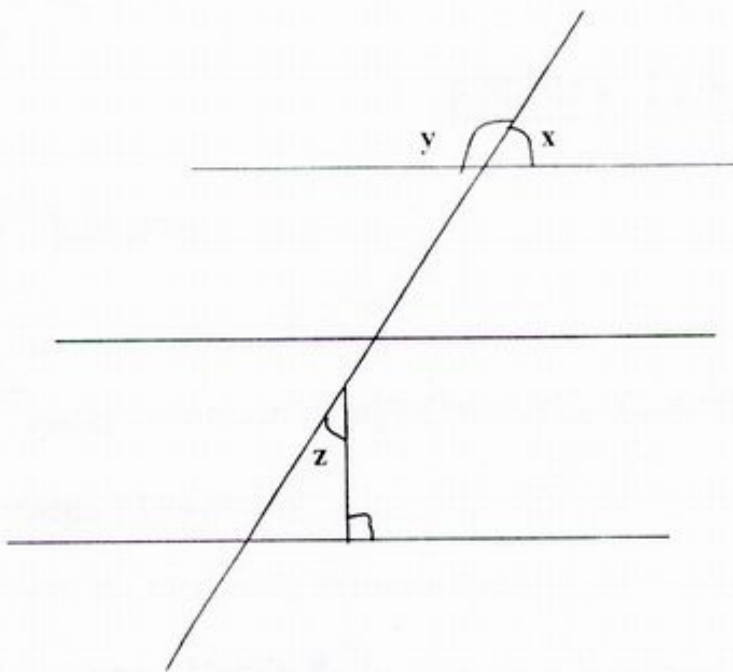
3. If Ahmed was 41 years old 8 years ago, how old was he x years ago? (1)
4. Running at the same constant rate, 5 identical machines can produce a total of 250 bottles per minute. At this rate, how many bottles could 10 such machines produce in 4 minutes? (1)
5. Three business partners, Q, R, and S, agree to divide their total profit for a certain year in the ratios 2 : 3 : 5 respectively. If Q's share was Rs. 4,000. What was the profit of the business other partners for the year? (1)
6. Ali wants to put up fencing around three sides of his rectangular yard and leave a side of 10 feet unfenced. If the yard has an area of 420 square feet, how many feet of fencing does he need? (1)
7. If 30 percent of a rectangular floor is covered by rectangular rug that is 9 feet by 12 feet, what is the area, in square feet, of the floor? (1)
8. The earth travels around the sun at a speed of approximately 18.5 miles per second. This approximate speed is how many miles per hour? (1)
9. A tank contains 10,000 gallons of a solution that is 4 percent sodium chloride by volume. If 3,000 gallons of water evaporate from the tank, the remaining solution will be approximately what percent sodium chloride? (1)
10. If a printer can print 3 pages of text per second, then, at this rate, approximately how many minutes will it take to print 4,000 pages of text? (1)

PART B

- 1- $\frac{x(x-3)(x^2+5)}{x-4} = 0$ Find x (1)
- 2- In www (World Wide Web) what does HTML stand for? (1)
- 3- $\frac{4^5}{4^2} =$ _____ (1)
- 4- What is the speed of light? (1)
- 5- If $3x^2 - 3 = 8x$ Find x . (1)
- 6- $\frac{3x + 5y}{4} = 4$ (1)
 $4x + 2y = 1$ Solve this simultaneous equation (1)
- 7- $2x^2 - 2.4 - 1.7$; $x = 0.7$ Solve the equation (1)
- 8- A Cube has volume 64. What is the total Surface area of the cube? (2)
- 9- What is the capital of Australia ? (1)
- 10- In which year was Pakistan's first Atomic bomb exploded? (1)
- 11- Albert Einstein is famous for which theory? (1)



- 12- The above figure represents a Ring with a solid rod passing through it. Find the volume of the above shape.? (2)

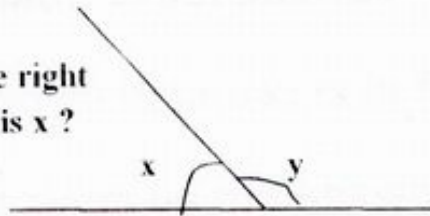


13- In the above figure, find Z in terms of x and y ?

(1)

14- Refer to the figure on the right

If $\frac{x}{x+y} = \frac{3}{8}$ What is x ?



(1)

15- If a square region has area x, what is the length of its diagonal in terms of x ?

- (A) \sqrt{x}
- (B) $\sqrt{2x}$
- (C) $2\sqrt{x}$
- (D) $x\sqrt{2}$
- (E) $2x$

(1)

16- The sum of the ages of Deen and Firdos is y years.

If Deen is 12 years older than Firdos, how many years old will Firdos be y years from now, in terms of y?

- (A) $y - 6$
- (B) $2y - 6$
- (C) $\frac{y}{2} - 6$
- (D) $\frac{3y}{2} - 6$
- (E) $\frac{5y}{2} - 6$

(1)