

## KEAM 2024 Mathematics Model Question Paper PDF 3

1. In how many different ways can the letters of the word 'BLOATING' be arranged?
2. 64 men can complete a piece of work in 40 days. In how many days can 32 men complete the same piece of work?
3. What is the area of a circle whose circumference is 1447 meters? (Use  $\pi = 3.14$ )
4. The ratio of the ages of a father and son is 17:7, respectively. Six years ago the ratio of their ages was 3:1, respectively. What is the son's present age?
5. What is the area of a circle whose radius is 10 meters? [Use  $\pi = 3.14$ ]
6. The probability that A hits a target is  $\frac{1}{3}$  and the probability that B hits it is  $\frac{2}{5}$ . What is the probability that the target will be hit if both A and B shoot at it?
7. A die is rolled. If the outcome is an odd number, what is the probability that it is prime?
8. Find the value of  $\tan^{-1}(\tan \frac{2\pi}{3})$
9. If  $\tan A = \frac{3}{4}$ , prove that  $\sin A \cos A = \frac{12}{25}$ .
10. A die is thrown once. Find the probability of getting