

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech Mid Semester Exam

Semester: 5
Subject Code: (303105311)
Subject Name: (Quant and Reasoning)

Date: (14/08/2024)
Time: (1hr: 30min)
Total Marks: 40

Sr.	Marks
No.	
Q.1	05
1. Check which of the following numbers are divisible by 11. (i) 35343 (ii) 70476	
2. Average of five numbers is 20. If each number is multiplied by 2, what will be the new average?	
3. If $5:3 = 15:x$, then find x .	
4. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?	
5. Find the HCF of $\frac{3}{16}$, $\frac{5}{12}$, $\frac{7}{8}$.	
(B) Five Fill in the blanks.	05
1. $201 \times 201 =$ _____	
2. At present, the ratio between the ages of Arun and Deepak is 4 : 3. After 6 years, Arun's age will be 26 years. Deepak's present age is _____	
3. When 3 is added to the numerator and denominator of a fraction $\frac{P}{Q}$, it becomes equal to $\frac{4}{5}$. If $Q-P=2$, then $P+Q=$ _____	
5. If $a=2$, $d=4$ then $S_{10}=$ _____	
	12
(6) Find the 2nd term of the AP whose 7th and 11th terms are respectively 37 and 57.	
(7) The sum of two numbers is 24 and their product is 143. Find the sum of their squares.	
Q.2	08
(1) In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, then find the number of valid votes that the other candidate got.	
(2) The average marks scored by the students of section A is 82. The average marks scored by students of section B is 77. The average marks of both section combined is 79.5. If there are 45 students in section A, find the number of students in section B.	