PREFACE INSTITUTE

MOCK – (2023) – Mathematics
SAMPLE MOCK

Time: 50 Minutes (All calculations and work must be clearly shown   in the margin provided next to each question) **MM: 50**

Q. 1   Answer the following questions in the space given below. (_Each question carries 1 mark_)   **(1x5=5)**   **Rough Work**

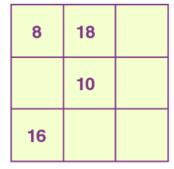| Question	Your Answer
(a) Write two twin prime numbers.	
(b) What are co-prime numbers ?	
(c) Complementary angle of 60^0 is _____ angle.	
(d) How many hundreds are there in 1 billion? _____	
(e) Subtract 2.5 from 9	

Q. 2 **Answer the following questions in the space given below.** (Each question carries 2 marks) (2x8=16) | **Rough Work**

(a) What fraction must be added to 5/8 so that the sum is 43/24?

(b) What fraction of the given shape is shaded?   Also, convert it to percentage.

(c) Dia did a silly error – Instead of multiply 65 by 87 she multiplied it by 78. By how much her answer is short of real answer.

(d) Find the average of 2/3 , 4/5 and 2/6 ——   —

	Rough Work
(e) An electrician earns Rs.12.34 per hour. If he worked 256 hours this month, then how much did he earn?	
(f) Divide the decimal number 67.85 by another decimal number 2.5.	
(g) Akshit won a lottery of cash prize Rs.157800. He deposited the amount in his bank account. If he had Rs.45000 in his account, what is his current bank balance?	
(h) Find the GCD of 24, 40 and 60.	

Q. 3   Answer the following questions in the space given below. (Each question carries 3 marks)   (3x7=21)   **Rough Work**

(a)   If Tim had lunch at $50.50 and he gave 20% tip, how much did he spend?

(b) A school has 10 classes with the same number of students in each class. One day, the weather was bad and many students were absent. 5 classes were half full, 3 classes were 3/4 full and 2 classes were 1/8 empty. A total of 80 students are there in each class. How many students are in this school when no students are absent?

(c) Construct an angle of 164^0 and write the reflex angle of it.

(d)

Simplify $[72 - 12 \div 3 \text{ of } 2] + (18 - 6) \div 4.$

(e)

$$\frac{9}{20} - \left[\frac{1}{5} + \left\{\frac{1}{4} + \left(\frac{5}{6} - \overline{\frac{1}{3} + \frac{1}{2}}\right)\right\}\right] = ?$$

(f) How much is 80% of 40 is greater than 4/5 of 25?

(g)

, A number is increased by 26 and the new number obtained is divided by 3. If the resulting number is 18; find the original number.

Q 4 A)

Solve the magic square problem, whose sum is 30.

8	18	
	10	
16		

B) Find the perimeter of rectangle whose length is 12cm and area is 360cm^2.

Q. 5   **(2+2=4)**

(a) Convert : 176^{0}F to C^0

Convert 23kg 5 g to g.

Add : 23hrs 56 mins to 22 hrs 42mins

(b)   Convert 134mins 23 seconds to hours. How many hours are there in 22 weeks?

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