

Reg. No.:



W8050

Name:

University of Kerala

First Semester FYUGP Degree Examination, December 2025

Multi-Disciplinary course

MATHEMATICS

UK1MDCMAT100 - Numerical Ability - I

Academic Level: 100-199

2025-Admission

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

**Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark
Each.Answer all questions**

Qn No.	Question	CL	CO
1	If A can do $\frac{1}{3}$ of work in 3 days. Then A can do the complete work in..... days	RE	3
2	The average marks obtained by 150 students in a certain examination is 40. Find the total marks.	RE	2
3	20 sweets are distributed between A and B in the ratio 2:3. How many does each get?	UN	3
4	Ramesh crosses a 600m long street in 5 minutes. His speed in km/hr is	UN	1
5	The speed of a boat in still water is 8km/h. If its speed down stream is 15 km/h, then find the speed of the stream.	UN	4
6	A man buys 10 articles for Rs.8 and sells them at Rs.1.25 per article. Find his gain per cent ?	UN	2

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	A can do a piece of work in 30 days while B can do it in 40 days. In how many days can both A and B together complete the work?	UN	3
8	If A:B = 7:5 and B:C = 9:11, find A:B:C.	UN	3
9	The radius of a circle is increased by 2%. Find the percentage increase in its area.	AP	2
10	The speed of a boat in still water is 20 km/h. If the speed of the stream be 4 km/h, find out its down stream and up stream speeds.	AP	3

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Find a greatest number of four digits which when divided by 12,15,20 and 35 leaves no remainder OR B) (i) A boy goes to school at a speed of 5 km/h and returns at a speed of 6km/h. If he takes 5 hours 30 minutes in going and coming back, what is the distance between his house and school? (ii) A man rows upstream 54 km and downstream 72 km taking 9 hours each time. Find the speed of the boat and the current?	AP	3, 1
12	A) A can do a work in 20 days and B can do in 30 days. They work together for 7 days and then both leave the work. Then C alone finishes the remaining work in 10 days. In how many days will C finish the work. OR B) (a) The average marks obtained by 40 students of a class is 86. If the 5 highest marks are removed, the average reduces by one mark. Find the average marks of the top 5 students. (b) The incomes of Ram and Mohan are in the ratio 7:2 and their expenditures are in the ratio 4:1. If each saves Rs.1000, find their expenditures ?	AN	4, 3
13	A) A and B can do a piece of work in 12 days, B and C in 15 days, C and A in 20 days. How long would each of them would take separately to complete the same work? OR B) Ramesh buys two books for Rs.410. He sells one at a loss of 20% and the other at a gain of 25%. If both the books are sold at the same price, find out the cost price of two books.	EV	3, 2
14	A) A man can row 30km upstream and 44km downstream in 10hours. Also he can row 40km upstream and 55km downstream in 13hours. Find the speed of the man in still water? OR B) Find the smallest 4-digit number, such that when divided by 12, 18, 21 and 28, it leaves remainder 3 in each case.	CR	4, 2