



جامعہ اردو ہند JAMIA URDU HIND

STATE'S MADRASA TUL OLOOM FOR RESEARCH IN URDU LANGUAGE OF NATIONAL IMPORTANCE

Recognized by Statutory Bodies, Minority Commission, Ministry of Social Justice & Empowerment and Ministry of HRD, Govt of India

MAIN EXAMINATION OF JAMIA URDU HIND 2014

INSTRUCTIONS:

ALL QUESTIONS ARE COMPULSORY AND CARRY EQUAL MARKS.

TOTAL NO OF QUESTIONS ARE FIVE.

TOTAL DURATION OF EXAMINATION IS TWO HOURS(2 HOURS).

SECONDARY EDUCATION(X-STANDARD)

MATHEMATICS

TIME: 2 hrs

TOTAL MARKS:100

1.(a) In an arithmetic series, the sum of first 14 terms is -203, and the sum of the next 11 terms is -572. Find the arithmetic series.

(OR)

(b) An amount of Rs.500 is deposited in a bank which pays annual interest at the rate of 10% compounded annually. What will be the value of the deposit at the end of 10th year?

2.(a) One year ago, a man was 8 times as old as his son. Now his age is equal to the square of his son's age. Find their present ages.

(OR)

(b) A takes 6 days less than the time taken by B to finish a piece of work. If both A and B together can finish it in 4 days, find the time that B would take to finish this work by himself.

3.(a) If $A = \begin{pmatrix} 1 & -1 \\ 2 & 3 \end{pmatrix}$ then show that $A^2 - 4A + 5I_2 = 0$

(OR)

(b) State and prove the converse of Basic Proportionality Theorem.

4(a) Let A, B, C be any three mutually exclusive and exhaustive events such that $P(B) = \frac{3}{2}P(A)$

and $P(C) = \frac{1}{2}P(B)$. Find P(A). (OR)

(b) If the sum of 3 numbers in G.P. is 38 and their product is 1728, find them.

5 (a) A solid sphere of radius 3 cm is melted and then cast into small spherical balls each of diameter 0.6 cm. Find the number of balls obtained

(OR)

(b) Find the length of the medians of the triangle whose vertices are (1,-1), (0,4) and (-5,3)