

(i) Printed Pages : 2

Roll No.

(ii) Questions : 5

Sub. Code :

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| 1 | 0 | 6 | 8 | 2 |
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Exam. Code :

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NEP U.G. Common-Value Added Course 2nd Semester

(2056)

MATHEMATICS

Paper : Vedic Algebra

Time Allowed : 1½ Hours]

[Maximum Marks : 16

Note :- (1) Attempt **three** questions in all, selecting **one** question from each unit. Q. No. 1 is compulsory.

(2) Use Vedic approach/methods as per syllabus for all questions unless a specific method is mentioned in a question.

1. (a) Find the L.C.M. of 18, 12, 24.

(b) Solve 68×54 .

(c) Divide $12x^2 - 8x - 32$ by $x - 2$.

(d) Solve $x + \frac{1}{x} = \frac{10}{3}$.

$1\frac{1}{2} \times 4 = 6$

UNIT-I

2. (a) Find the H.C.F. of $6x^4 - 7x^3 - 5x^2 + 14x + 7$ and $3x^3 - 5x^2 + 7$.

(b) Find $(216)^2 + (12 \times 13)$. $2\frac{1}{2} + 2\frac{1}{2} = 5$

3. Evaluate

$$(x^2 + 2x + 8)(5x + 5) + (2x + 2)(x^2 + x + 1) - (x^2 + 8)(2x + 7). \quad 5$$

UNIT-II

4. (a) Divide $f(x)$ by $g(x)$ to find quotient $q(x)$ and remainder where $2x^5 + 10x^4 + 6x^3 + x^2 + 5x + 3 = f(x)$ and $g(x) = x^3 + 1$.

(b) Factorise $3x^2 - 11x - 4 = 0$. $2\frac{1}{2} + 2\frac{1}{2} = 5$

5. Solve with Sankalana - Vyavakalanabhyam:

$$699x + 845y = 5477$$

$$845x + 699y = 5331 \quad 5$$