

2403000502063001
EXAMINATION SEPTEMBER 2024 (ATKT EXAM)
BACHELOR OF SCIENCE (NCP-NEP) SEM-2
SEC - FUNDAMENTALS OF VEDIC MATHEMATICS - II

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF SCIENCE (NCP-NEP) SEM-2**
 - b. Name of the Subject : **SEC - FUNDAMENTALS OF VEDIC MATHEMATICS - II**
 - c. Subject Code No : **2403000502063001**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. Follow usual notations and conventions .

Seat No:

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Student's Signature

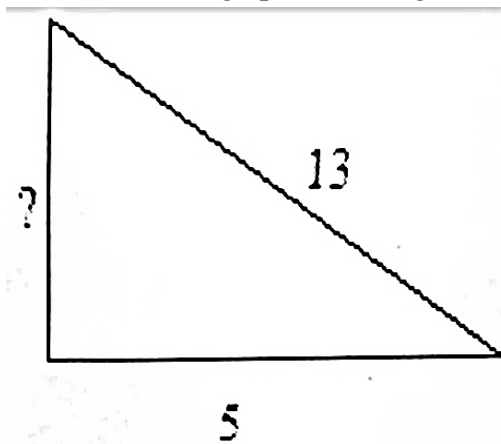
English Version

[Max. Marks: 25]

Q.1 Answer any FIVE from the following questions.

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- 1) What is the "Ekadhika" (one more than the previous one) in $\frac{9}{39}$?
- 2) What will $\frac{7}{13}$ need to multiply by top and bottom so the denominator ends in 9?
- 3) Is $\sqrt{5}, \sqrt{6}, \sqrt{11}$ a triple? Justify your answer.
- 4) Find the missing spot for the given triangle.

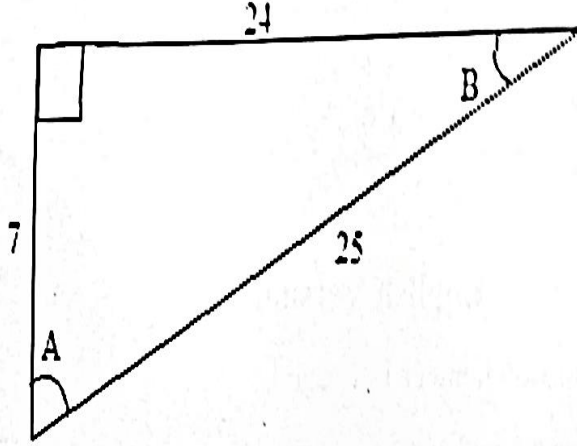


- 5) What is the triple for 90° ?
- 6) Multiply: $(2x + 5)(3x + 2)$.

Q.2 Attempt any TWO.

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- 1) Find the recurring decimal for $\frac{2345}{49}$ till four digits.
- 2) Write the triple from the given figure for angle A & angle B also find A+B.



- 3) Define perfect triple and also find 2A, 2B and 2C for given A) 12, 5, 13
B) 15, 8, 17 and C) 4, 3, 5

Q.3 Attempt any TWO.

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- 1) Draw all the possible variations of 3,4,5 on the plane.
- 2) Multiply the followings using moving multiplier method.

(a)
$$\begin{array}{r} 321 \\ 21 \\ \hline \end{array}$$
, (b)
$$\begin{array}{r} 11221 \\ 22 \\ \hline \end{array}$$
, (c)
$$\begin{array}{r} 1331 \\ 22 \\ \hline \end{array}$$

- 3) Multiply the followings:

(a)
$$\begin{array}{r} 3201 \\ 4302 \\ \hline \end{array} \times$$
, (b)
$$\begin{array}{r} 333 \\ 111 \\ \hline \end{array} \times$$
, (c)
$$\begin{array}{r} 28 \\ 19 \\ \hline \end{array} \times$$

Gujarati Version

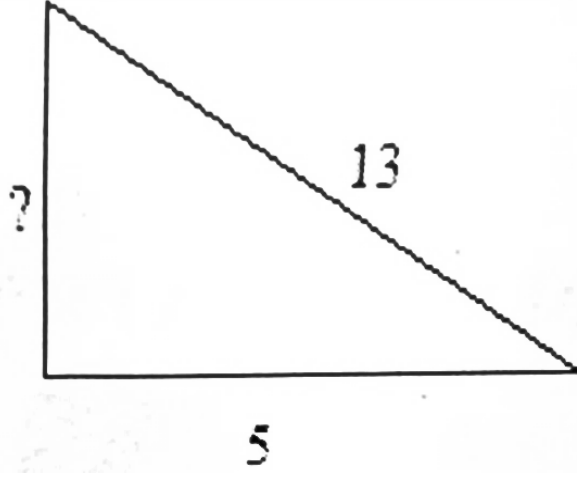
[Max. Marks: 25]

Q.1 માંગ્યા મુજબ લખો. (ગમે તે પાંચ)

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- 1) આપેલ સંખ્યા $\frac{9}{39}$ નો એકાધિકા ("Ekadhika" (one more than the previous one)) શું છે ?

- 2) $\frac{7}{13}$ ને ઉપર અને નીચે કોના વડે ગુણવાથી તેના છેદ નો અંત 9 મળશે?
- 3) શું $\sqrt{5}, \sqrt{6}, \sqrt{11}$ ટ્રિપલ છે? તમારા જવાબ ને ઉચિત ઠરાવો.
- 4) આપેલ ત્રિકોણ માટે ખૂટતું સ્થાન શોધો.

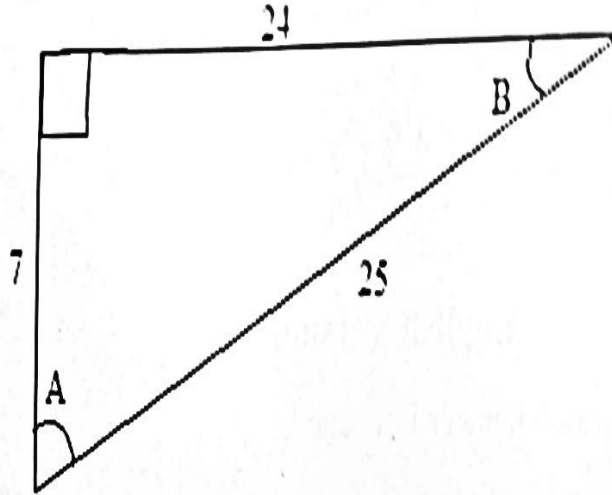


- 5) 90° માટે ટ્રિપલ શું છે ?
- 6) ગુણાકાર કરો : $(2x + 5)((3x + 2))$

Q.2 કોઈ પણ બે ગણો.

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- 1) $\frac{2345}{49}$ માટે રીકરીંગ દશાંશ ની કિંમત ચાર અંક સુધી શોધો.
- 2) આપેલ આકૃતિ પર થી ખૂણા A અને B માટે ના ટ્રિપલ લખો તથા $A + B$ શોધો.



- 3) વ્યાખ્યાયિત કરો: સંપૂર્ણ ટ્રિપલ. તથા A)12, 5,13, B)15,8, 17 અને C) 4, 3, 5 અને 2A, 2B અને 2C શોધો

- 1) સમતલ (plane) પર 3, 4, 5 ની તમામ સંભવિત વિવિધતાઓ (variations) દોરો.
- 2) આપેલા નો ગુણાકાર મુવિંગ ગુણક પદ્ધતિ (moving multiplier method) થી શોધો.

$$(a) \begin{array}{r} 3 \ 2 \ 1 \\ 2 \ 1 \end{array}, (b) \begin{array}{r} 1 \ 1 \ 2 \ 2 \ 1 \\ 2 \ 2 \end{array}, (c) \begin{array}{r} 1 \ 3 \ 3 \ 1 \\ 2 \ 2 \end{array}$$

- 3) આપેલા નો ગુણાકાર કરો:

$$(a) \begin{array}{r} 3 \ 2 \ 0 \ 1 \\ 4 \ 3 \ 0 \ 2 \end{array} \times, (b) \begin{array}{r} 3 \ 3 \ 3 \\ 1 \ 1 \ 1 \end{array} \times, (c) \begin{array}{r} 2 \ 8 \\ 1 \ 9 \end{array} \times$$

*****END*****