

(Top sheet of question paper, all question papers will be stapled on top of answer sheet)

THE ASSAM VALLEY SCHOOL

ENTRANCE EXAMINATION

SUBJECT: MATHS

FOR ADMISSION TO CLASS - 9

Time : 1Hr

M.M. : 50

(TO BE FILLED BY THE CANDIDATE)

Name

Date of birth

Studying in class

Class in which admission is desired

Registration Number

Name of Centre

Date

(TO BE FILLED BY EXAMINER)

MARKS OBTAINED IN PERCENTAGE

INITIALS OF EXAMINER

SIGNATURE OF EXAMINER

INITIALS OF CHAIR

SIGNATURE OF CHAIR

COMMENT OF THE CHAIR

General instructions

Answers to this paper must be written on the paper provided separately.
The time given at the head of this Paper is the time allowed for writing the answers.

This paper is divided into two Sections. Attempt 10 Questions in all; **Attempt 5 Questions from Section A and Any 5 Questions from Section B.**

The intended marks for questions or parts of questions are given in the brackets [].

SECTION – A (25 marks)
(Attempt all the questions)

Question1.

- (a) Add : [2]

$$\frac{37}{16} + \frac{67}{20}$$

- (b) Geeta saves 18% of her monthly salary. If she spends ₹ 10,250 per month, what is her monthly salary ?

Question2.

A radio is sold for ₹ 3,120 at a loss of 4%. For how much should it be sold to gain 4% ? [5]

Question3.

Divide: $(6x^3 + x^2 - 26x - 21)$ by $(3x - 7)$. [5]

Question4.

Find the least number which must be subtracted from 16160 to obtain a perfect square. Find this perfect square and its square root. [5]

Question5.

Simplify: $1 \div \frac{5}{9}$ of $6 \frac{3}{10} - \frac{1}{6}$ [5]

SECTION- B (25 Marks)

(Answer any 5 questions)

Question6.

- (a) Add the expressions: $9pq + 6qr - 4rp$; $- 2pq + 5rp$; $- 2rp - 6pq - 9qr$ [3]
(b) Multiply: $(x + 9)(x - 7)$ [2]

Question7.

- (a) Expand: $(x + 5)^3$ [2]
(b) Expand $(3x - 2y - 1)^2$ [3]

Question8.

- If, $\left(x + \frac{1}{x}\right) = 3$, find the value of: [5]
(i) $\left(x^2 + \frac{1}{x^2}\right)$ (ii) $\left(x^4 + \frac{1}{x^4}\right)$

Question9.

- (a) Find the fourth proportional to the numbers: 13, 39 and 8. [2]
(b) If 32 horses consume 112 kg of gram in a certain period, how much gram will be consumed by 11 horses during the same period? [3]

Question10.

- (a) Evaluate: $(81)^{-1} \times 3^{-5} \times 3^{11} \times 2^3$ [3]
(b) Find the simple interest on ₹ 10,500 for 4 years at 8% per annum. [2]

Question11.

- (a) In a right-angled triangle one of the acute angle measures 70° . Find the measure of the other acute angle. [3]
(b) Find the area of a square of side 7 cm. [2]

Question12.

Using ruler and compass only construct a ΔABC in which $BC = 5.6$ cm, $\angle C = 30^\circ$ and $\angle B = 75^\circ$. [5]