Primrose Schools
ICSE Curriculum
(A Unit of Primrose Educational Trust, Chennai)
An ISO 9001:2015 Certified Institution

State Purpose of Worksheet – III Term Examination [2018 – 2019]

[KG Class work/Home Assignment/Alternate Class work/Internal Assessment/Continuous Assessment/Unit Test/Cycle Test/Revision Test/Mid Term Examination/Term Examination/Preboard]

Name: **Std: VI**	**Subject: Mathematics**
Date: **Term: III**	**Topic: NA**
Maximum Marks: 60 **Time Duration: 2 hr**	**Type of Assessment (if internal assessment): NA**

Answer to this paper must be written on the paper provided separately.
You will not be allowed to write during the first 10 minutes.
This time is to be spent in reading the question paper.
The time given at the head of this paper is the time allowed for writing the answers.

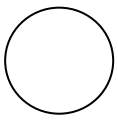
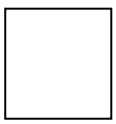
Attempt **all** the questions from **Section A** and **any three** questions from **Section B.**
All working, including rough work, must be clearly shown and must be done on the same sheet as the rest of the answer.
Omission of essential work will result in loss of marks.
The intended marks for questions or parts of questions are given in brackets [ ].

Section A [30 Marks]

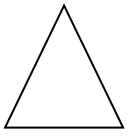
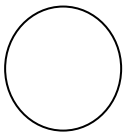
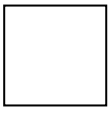
*Attempt **all** questions*

Question 1

i) Each symbol given below represents an algebraic expression:

 $=2x^2+3y,$  $=5x^2+3x,$  $= 8y^2-3x^2+2x+3y$ [3]

The symbols are then represented in the expression:

 $+$  $+$ 

Find the expression which is represented by the above symbols.

ii) The mean of 9 , 14 , x , 16 , 7 and 18 is 11 . find the value of x. [3]

iii) The sides of a triangle are in the ratio 2 : 3 : 4 . If its perimeter is 54 cm, find the lengths of the sides of the triangle. [4]

Question 2

i) a) State true or false. Is 6 + $xy \div 5$ a trinomial ? [3]

b) Add $3x + 2y \; and \; -9y - 6x$

c) Find the coefficient of y in $-5xyz$

ii) The rainfall (in mm) in a city on 7 days of a certain week is recorded as follows: [3]

Day:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Rainfall (in mm)	0.5	2.7	2.6	0.5	2	5.8	1.5

Find the mean rainfall

iii) Multiply : $(3x - 4y)$ and $(4x + 5y)$ [4]

Question 3

i) Construct a $\triangle$ ABC such that : AB = 6cm , BC = 4cm , CA = 5.5cm . Construct the circumcircle of the triangle drawn. [6]

ii) Subtract: $p^2 - 2pq + q^2$ from $6p^2 + 2pq - 4q^2$ [4]

Section B [30 Marks]

*Attempt **any three** questions*

Question 4

i) Divide 182 in three parts in the ratio $\frac{1}{10} : \frac{1}{15} : \frac{1}{20}$ [3]

ii) Draw a circle of radius 4 cm. In the circle, draw a chord AB = 5 cm. Now shade the minor Segment of the circle. [3]

iii) The table given below depicts the monthly salary (in ₹) of six employees of a company : [4]

Employee	A	B	C	D	E	F
Monthly Salary (₹)	8000	3500	5000	7000	2500	4500

Represent the above data by a bar graph.

Question 5

i) The marks of 7 students in an examination are : [3]

25, 19, 17, 24, 31, 26, 40. Find the median score.

ii) Five of the angles of a hexagon are each 115° . Calculate the measure of the other angle. [3]

iii) Find the sum of the following algebraic expressions: [4]

$2x^2 - 3y^2 + 6z^2; \quad y^2 - x^2 + z^2; \quad z^2 - 6x^2 - 8y^2 \quad and \; x^2 - \; y^2 + 5z^2$

Question 6

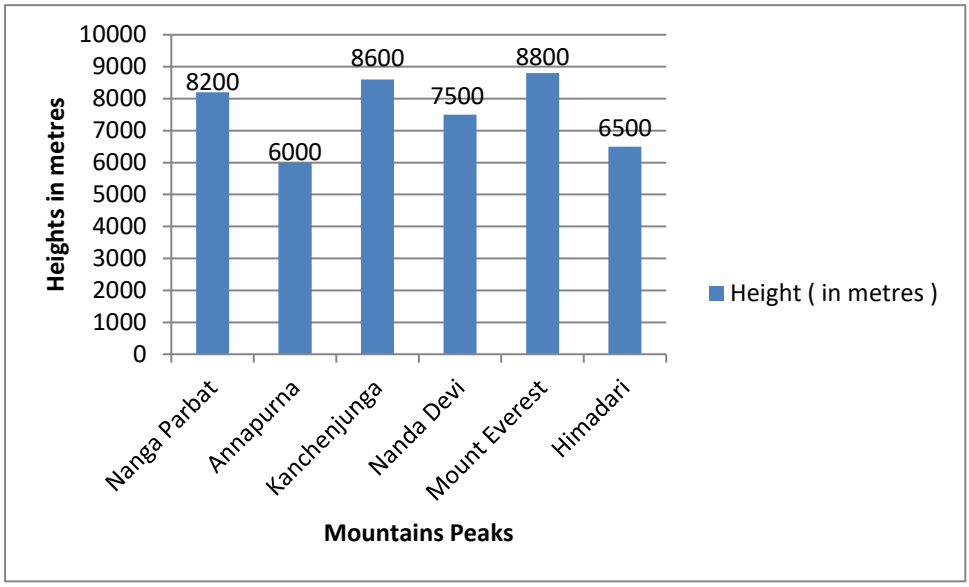
i) a) Write down the degree of the following polynomial : $x^2y^3 + yz^3 + x^2$ [3]

b) State the number of terms of the following expression: $2p + 5x^2y + 3x^2 \div 5$

c) Write down the coefficient of : x^2y in $8abx^2yz$

ii) Find the sum of the interior angle of a 16 - sided polygon. [3]

iii) Given below is a bar graph showing the heights of six mountain peaks. [4]



Read the above bar diagram and answer the following questions.

a) Which is the highest peak and what is its height?

b) What is the ratio of the heights of highest and lowest peaks?

c) What is the ascending order of the heights of the peaks?

d) Which peak is second highest and what is its height?

Question 7

i) In a class test, the number of students passed in various subjects are given below: [3]

Subject	English	Hindi	Mathematics	physics	biology	Chemistry
Number of students passed	15	10	5	25	20	30

Choose the appropriate scale and draw a pictograph to represent the given data .

ii) a) Which ratio is greater? $\frac{5}{7}$ or $\frac{3}{5}$ [3]

b) Increase 342 in the ratio 3 : 4

iii) Divide: $24x^3y^3 + 30x^4y^5 - 12x^5y^4$ by $6x^2y^3$ [4]

Question 8

a) A pole of length 165 cm is divided into two parts such that their lengths are in the ratio 7:8. Find the length of each part of the pole. [3]

b) Multiply

$xyz\ and\ -13xy^2z + 15x^2yz - 6xyz^2$ [4]

c) The numbers of games won by a football team over the last 9 seasons have been: 5, 7, 3, 6, 5, 9, 8, 7 and 5. Find the Mean. [3]