EXTERNAL PAPER

S.2 MATHAMATICS

TIME: 2HRS

INSTRUCTIONS:-

- **Attempt all questions**

1. **Solve the equation**
   $\frac{3x}{2}$ **-2**$\frac{(x-3)}{3}$ **+4 =0**
2. **Find the solution of the inequality and illustrate the solution on a number line**
   -7<3x12≤5

3. Given that A*t= $2s^2=2s^2-3t$, evaluate 6*(5*2)

4. Simplify; $\frac{(3\frac{5}{6} \div 2\frac{2}{15}) \times \frac{3}{23}}{5\frac{1}{3}-2\frac{7}{12}}$

5.In a class of 15 students, 7 like mathematics, 9 like English and 2 like neither mathematics nor English. Find the number of students who like both mathematics and English.

6. Simplify log 15-2log 10+log 60.

7.If 25n=8ten, find n.

8. Evaluate $\frac{(0.25)^2 \times (\frac{1}{64})^2}{(128)^{-2}}$

9. Find the H.C.F of 18,45 and 42.

10. Solve a pair of simultaneous equations

2x-y=8

4x-3y=14

1. **Using a pencil a rule and pair of compasses only, construct triangle.ABC in which AB=9cm Angle CAB=45^0 and ABC=75^0.**
   - **(a) Measure the length BC**
   - **(b) Draw a circumscribing circle through the points A,B and C.**
   - **(c) Measure radius of the circle.**
2. **The height of a boy was measured every month for a year. These are the results**

Month	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Height	158	160	161	164	165	166	166	166	167	169	169	170

Draw a line graph to show the role of which the boy's height changed over the year.

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