# RAJIV VIDYA MISSION (SSA), A.P., HYDERABAD <br> SUMMATIVE TEST - MATHEMATICS 

| Subject: Mathematics <br> class: 8 <br> Time : $\mathbf{2} \frac{1}{2}$ hrs. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Acad. Std. | Problem Solving |  |  |  |  | Reasoning \& Proof |  |  |  |  | Communication |  |  |  |  | Connections |  |  |  | Reprentation |  |  |  | Overall grade |
| Qn. Nos. | 1 | 2 | 6 | 7 | 22 | 3 | 5 | 8 | 9 | 17 | 10 | 11 | 18 | 19 | 20 | 12 | 13 | 1620 | 023 | 4 | 14 | 1521 | 25 |  |
| Q. wise Grade |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Acad. Std. wise grades |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## I Solve the following.

1) A field is rectangular in shape and its length is $1 \frac{1}{2}$ times of breadth. If its area is 2.4576 hectares, what is its perimetre?
2) Gopayya bought a house for Rs. 70,000 and a site for Rs. 16,500 . He sold the house at a gain of $12 \%$, and the site at a loss of $20 \%$. Find his gain or loss percent on the whole?
3) In how many years certain sum amounts to double to the principle at the rate of $16 \frac{2}{3} \%$ ?
4) A square tank whose side is 28 m . is in a grass field. A bull is tied with a rope of length 35 m . in a corner of the tank. What is the area of a grass field that the bull can graze?
5) I walk from my house to my office at a speed of $3 \mathrm{~km} / \mathrm{hr}$ and arrive at the office 20 min . late, but when I walked at $4 \mathrm{~km} / \mathrm{hr}$. I reach the office 15 min . before. Find the distance between house and office.

## II Answer the following Questions.

6) If $\sqrt{3}=1.732$, find the value of $\sqrt{75}$.
7) The radius of circular field is 77 m . A path of width 7 m . is laid in side it. Find its area.
8) The compound ratio of $8: 5 \frac{1}{3}$ and the inverse of $3 \frac{1}{5}: 1 \frac{1}{3}$ is $50: x$. Find $x$.
9) Annual income of the families of Sita and Latha are in the ratio $4: 3$ and their annual expenditures are in the ratio $3: 2$. What is their annual income if they save Rs. 3000/- in a year?
10) 
11) 

$$
\begin{align*}
& \mu=\{1,2,3 \ldots \ldots . .10\} \\
& \mathrm{B}=\{x / x \text { is a prime number }\}
\end{align*}
$$

Write B in Roaster form
12) Simplify $\left(x^{x+1}\right)^{\mathrm{x}-\mathrm{n}} \times\left(x^{\mathrm{n}+6}\right)^{\mathrm{n}-\mathrm{p}} \times\left(x^{\mathrm{p}+\mathrm{n}}\right)^{\mathrm{p}-\mathrm{n}}$, m, n, p, $x \in \mathrm{R}$
13) Simplify $\left[\frac{x^{3 x+1}-x^{3 n-1}}{x^{2 n+1}}\right]^{2}(x \neq 0)$
14) Write $0 . \overline{125}$ in the form of rational number.
15) $\mathrm{A}=\{1,3,4,5,6\}, \mathrm{B}=\{1,5,9,10\}$
draw a venndiagram and show the elements of each set.

## III Choose the correct answers.

16) If $\sqrt{9604}=98$, then $\sqrt{0.9604}=$ $\qquad$
a) 9.8
b) 0.98
c) 0.098
d) 0.0098
17) If profit is $20 \%$, cost price is multiplied with $\qquad$ gives selling price
a) $\frac{5}{6}$
b) $\frac{4}{5}$
c) $\frac{6}{5}$
d) $\frac{5}{4}$
18) 8 does not belong to the set of prime numbers P. symbolic form of this is
a) $8 \notin p$
b) $8 \in \mathrm{p}$
c) $8 \subset p$
d) $8 \not \subset \mathrm{p}$
19) The shaded part in the diagram
 represents
a) $A \cup B$
b) $\mathrm{A} \cap \mathrm{B}$
c) $\mathrm{B}-\mathrm{A}$
d) $\mathrm{A}-\mathrm{B}$
20) If $(\mathrm{a}+\mathrm{b}, \mathrm{a}-\mathrm{b})=(5,1)$ then $\mathrm{a} \times \mathrm{b}=$ $\qquad$
a) 3
b) 2
c) 6
d) 5

## IV Match the following

21) $\left\{1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}\right\}$
[ ]
a) 2
22) G.C.D. of 30,45
[ ]
b) $\mathrm{B} \subset \mathrm{A}$
23) 



The relation [ ]
c) $\mu$ between $A$ and $B$
24) Universal set in denoted by [ ]
d) O
25) The digit in units place in [ ]
f) $\left\{x / x=\frac{1}{y}, y \in N, y \leq 5\right\}$
the product of
$5 \times 3 \times 7 \times 672 \times 857$

