Dr.K.K.R GOWTHAM EDUCATIONAL INSTITUTIONS :: A.P \& T.S
Sub: Maths, PHYSICS, CHEMISTRY
Maths

## I. Answer the following questions

1. Multiply $2 / 11$ by the reciprocal of $-5 / 14$
2. Express the mixed recurring decimal $15.7 \overline{32}$ in $\mathrm{P} / \mathrm{Q}$ form
3. The length of a rectangular field is 8 metrer less then twice its breadth. If the perimeter of the rectangular field is 56 meter, find its lenfth and breadth?
4. Sum of two number is 29 and one number exceeds another by 5. Find the numbers
5. Construct a quadrilateral ABCD where $\mathrm{AB}=4 \mathrm{~cm} \mathrm{BC}=3.6 \mathrm{~cm} \mathrm{CD}=4.2 \mathrm{~cm}, \mathrm{AD}=4.8$ cm and $\mathrm{AC}=5 \mathrm{~cm}$
6. If $x=(3 / 2)^{2} X(2 / 3)^{-4}$, find the value of $x^{-2}$
7. Simplify
i) $1+2^{-1}+3^{-1}+4^{0}$
ii) $(-2)^{7} \mathrm{X}(-2)^{3} \mathrm{X}(-2)^{4}$
8. The compound ratio of $3: 4$ and the ratio of $4: 5$ is $45: x$ then find the value of $x$
9. Madhu \& kavitha purchased a bew house for Rs. 3,20,000. Due to some economic problems they sold the house for Rs. 2,80,000. Find the loss incurred b) the loss percentage
10. Find the smallest number by which 7776 is to be divided to get a paertest square
11. Find the square root of 12.96 by long division method.
12. Find the mean of the data for the following observation $10.25,9$, $4.75,8,2.65,12,2.35$
13. Two years ago, the mean age of 40 people was 11 years. Now a person left the group and the mean age is changes to 12 years. Find the age of the person who left the group.
14. The median of the following observation, arranged in ascending order is $15,10,12,14, x-3,1, x+2,25$ then find $x$
15. If $\Delta \mathrm{ABC} \cong \Delta \mathrm{NMO}$, name the congruent sides and angles.
16. Define congruency and similarity. Write difference between them with one example.
17. The parallel sides of trapezium are 9 cm and 7 cm long and the distance between them is 6 cm find the area of the trapezium.
18. A horse is placed for grazing inside a rectangular field 7 cm by 52 m and is tethered to one corner by a rope 21 m long. How much area the horse cannot graze.

19. 48 bags of paddy costs Rs 16,800 ten find the cost of 36 bags of paddy
20. If 15 workers can build a wall in 48 hours how many workers will be required to do the same work in 30 hours

## Physics

## II. Answer the following questions

21. Give two examples each for a constant force and force at a distance?
22. What happen if we do not reduce friction in machines?
23. Write any two slogans to reduce sound pollution?
24. State the laws of reflection?
25. Give examples for good solid conductors and liquid conductors?

## III. Answer the following questions

26. What is a force ? what changes can be produced by a force?
27. Make a battery from four lemons and test it with a LED in the circuit?
28. How can you explain the sound has energy ? explain with an activity?
29. Give two examples of your daily life about effects which are caused by transfer of charge?
30. What is the use of artificial satellites in our daily life?

## Chemistry

## IV. Answer the following questions

4X4=16M
31. Draw a flow chart showing exhaustible and inexhaustible resources and their use?
32. Explain the petroleum products used for roads surfacing of explain the process of formation of petrol?
33. Why should look for alternative sources of fossil fuel?
34. Assume that you are a driver what measures do you take a save petrol and diesel?
V. Answer the following questions

4X1=4M
35. which one of the material is used for making shoe polish?
36. Which of the material is less polluting fuel?
37. Writ e two names of exhaustible materials?
38. petroleum is separated by which technique is used?

## VI. fill in the blanks

$10 X^{1 / 2}=5 \mathrm{M}$
39. $\qquad$ was used in manufacture of steel.
40. the byproduct of coal used in synthetic dyes and paints is $\qquad$
41. $\qquad$ gas which causes climate change and global warming.
42. The main constituent of coal is $\qquad$
43. The conversion of dead vegetation into coal is called $\qquad$
44. $\qquad$ is used in the manufacture of steel.
45. wind mills are $\qquad$ resource.
46. which one is called liquid gold $\qquad$
47. coal is $\qquad$ containing material.
48. petroleum was formed from the $\qquad$ organisms.


