

# BHARATH COACHING CENTRE

8<sup>th</sup> CBSE

Direct and Inverse Proportions

Total: 50

Mathematics

Time: 2.00hrs

## Section A

5 X 1 = 5

1. If  $x, y$  varies in direct proportion find  $y$  if  $x = 7, k = 14$ .
2. Both  $x$  and  $y$  are in direct proportion then  $\frac{1}{x}$  and  $\frac{1}{y}$  varies \_\_\_\_\_.
3. Demand and price varies \_\_\_\_\_.
4. Work and time varies \_\_\_\_\_.
5. In indirect proportion  $k =$  \_\_\_\_\_.

## Section B

5 X 2 = 10

6. A machine in a pepsi factory fills 680 bottles in 5 hrs. How many bottles will it fill in 3hrs?
7. Bacteria enlarged 60000times attains a length of 3cm. what is the length of the bacteria if it is enlarged 10000 times only.
8. A bus travel 40kms in 30 minutes. If the speed of the bus remains same, how far can it travel in 3 hrs?
9. A contractor estimates that 5 persons could plumb ravi's house in 8 days. If he uses 6 persons instead of 5 how long should they take to complete the job.
10. If a box of pens is given to 25 children, they will get 2 pens each. How many would each get, if the number of children is reduced by 10?

## Section C

5 X 3 = 15

11. A batch of tablets was packed in 10 boxes with 6 tablets in each box. If the same batch is packed using 12 tables in each box. How many boxes would be needed?

12. In a toy company, it requires 26 machines to produce a car toys in 54 days. How many machines would be required to produce the same number of car toys in 81 days?
13. Two persons could fit the AC unit in a house in 2 days one person fell ill before the work started, how long would the job take now?
14. In a college 7 period a day each of 45 minutes duration. How long each period be, if the school has 9 periods a day assuming the number of hours to be the same?
15. There are 200 students in a primary school. They need 50 liters of drinking eater/day. if 50 of them are reduced how many liters of water needed per day?

#### Section D

$$5 \times 4 = 20$$

16. If the weight of 25 precious stones is 50 grams. How many precious stones of the same type would weigh 4500 kgs.
17. Arun has a road map with a scale 1cm representing 25km. she drives on a road for 100km.What would be her distance covered in the map?
18. The cost of 5 liters of a milk is Rs.55. Tabulate the cost of 2,4,10 liters of milk.
19. 5 pipes are required to fill a petrol tank in 2hours 20 minutes. How long will it take if only 4 pipes of the same type are used?
20. Arrangement of tables and chairs in an exam hall done by 10 workers in 8 hours. How many workers will be required to do the same work in 4hrs?