

## NIIT Technologies Previous Paper Questions

**Q1.** In a geometric progression, the first term and the common ratio are both equal to 2. Find the fourth term.

- a) 16
- b) 18
- c) 8
- d) 26

**ANS:** a) 16

**Q2.** A certain sum of money amounts to Rs1,125 in 5 years and to Rs1,200 in 8 years. Find the sum and the rate of interest.

- a) Rs. 2,500, 4%
- b) Rs. 1,500, 4.2%
- c) Rs.1,000, 2.5%
- d) Rs. 2,000, 2%

**ANS:** c) Rs.1,000, 2.5%

### Explanation:

*In 3 years more years, the interest is Rs75.*

*So in 1 year, the interest is Rs25 & in 5 years the interest is Rs125.*

*Sum +5 years interest= Rs1125. So the sum is Rs1000.*

*And the rate of interest is  $25/1000 \times 100$  i.e. 2.5% p.a.*

**Q3.** By selling 99 pens, a trader gains the cost of 33 pens. Find his gain percentage?

- a)  $33 \frac{1}{3}\%$
- b)  $66 \frac{2}{3}\%$
- c) 50%
- d) 75%

**ANS:** a) 33 1/3%

**Q4.** 5 persons are sitting in a round table in such a way that the tallest person always sits next to the smallest person. What are the possible ways that the tallest and the smallest person can be interchanged?

- a) 10
- b) 15
- c) 16
- d) 12

**ANS:** d) 12

**Explanation:**

*Keep tallest and smallest person as 1 we have  $(4-1)! = 3! = 6$   
the tallest and the smallest person can be interchanged =  $2 \times 6 = 12$*

**Q5.** In how many seconds does a 180m long train moving at 108kmph cross a platform of length 150 meter?

- a) 11 sec
- b) 9 sec
- c) 8 sec
- d) 7 sec

**ANS:** a) 11 sec

**Explanation:**

*distance =  $180 + 150 = 330$  meter  
speed =  $108 \times 5/18 = 30$  m/s  
 $= 330/30 = 11$  sec*

**Q6. The Present ages of A & B are in the ratio of 9:7. 13 years ago their ages were in the ratio 25:18. What is the difference of their ages?**

- a) 14
- b) 16
- c) 18
- d) 20

**ANS: a) 14**

**Explanation:**

$$(25-18)*13/(25*7-9*18) = 7$$
$$\text{difference} = (9-7)*7 = 14 \text{ yrs}$$

**Q7. What is the highest power of 3 in 200!?**

- a) 97
- b) 197
- c) 65
- d) 82

**Q8. Ajay and Sita are two of Mr. Kumars sons. Ajay has half as many brothers as sisters. Sita has as many brothers as sisters. Find the number of children Mr. Kumar has?**

- a) 7
- b) 8
- c) 6
- d) 9

**ANS: a) 7**

**Q9.** Ten years ago, the age of Anand was one third the age of Bala at that time, the present age of Bala is 12 years more than the present age of Anand. Find the present age of Anand?

- a) 16
- b) 18
- c) 20
- d) 22

**ANS:** a) 16

**Q10.** The sum of a two digit number and the number formed by reversing its digits is 110. If the tens digit is 2 more than the units digit. Find the number?

- a) 64
- b) 46
- c) 24
- d) 42

**ANS:** a) 64

**Explanation:**

$$10a+b+10b+a=110$$

$$11a+11b=110$$

$$a+b=10$$

$$a=2+b$$

$$a-b=2$$

solving,  $a+b=10$  &  $a-b=2$

$$a=6 \text{ and } b=4$$

Number is 64

**Q11.** In a kilometer race, A beats B by 200 mtr and C by 360 mtr. In a race of 500 mtr by how many metres does B beat C?

- a) 80

- b) 200
- c) 100
- d) 160

**Q12. A car covers 4 successive 3km stretches at speed of 10kmph, 20kmph, 30kmph & 60kmph respectively. Its average speed is?**

- a) 20
- b) 20
- c) 30
- d) 40

**ANS: a) 20**

**Explanation:**

*total distance =  $4 * 3 = 12 \text{ km}$*

*total time =  $3/10 + 3/20 + 3/30 + 3/60 = 36/60 \text{ hr}$*

*speed =  $12/36 * 60 = 20 \text{ kmph}$*

**Q13. What is the total surface area of the hemisphere, whose radius is 10.5cm?**

- a) 1049.5
- b) 1039.5
- c) 999.5
- d) 1085.5

**Q14. Pipe A can fill a tank in 6hrs due to leak at bottom it takes 9 hours to fill the tank. In what time the leak alone can empty the full tank?**

- a) 16
- b) 15
- c) 18
- d) 17

**ANS:** c)18 hours.

**Q15.** How many kg of Basmati rice costing Rs.42/kg should a shopkeeper mix with 25 kg of ordinary rice costing Rs.24 per kg so that he makes a profit of 25% on selling the mixture at Rs.40/kg?

- a) 18 Kg
- b) 25 Kg
- c) 20 Kg
- d) 30 Kg

**ANS:** c) 20 Kg

**Explanation:**

*Let the amount of Basmati rice being mixed be x kg. As the trader makes 25% profit by selling the mixture at Rs.40/kg, his cost /kg of the mixture = Rs.32/kg*

$$(x * 42) + (25 * 24) = 32 (x + 25)$$

$$42x + 600 = 32x + 800$$

$$10x = 200 \text{ or } x = 20 \text{ kg.}$$

**Q16.** If there are 6 arithmetic means between 5 and 33 then common difference is?

- a) 6
- b) 4
- c) 10
- d) 5

**ANS:** b) 4

**Explanation:**

$$d = \frac{b-a}{n+1}$$

$$d = \frac{33-5}{6+1}$$

$$d = 4$$

**Q17. A bag contains a total of 90 coins in the form of 20 paise and 25 paise coins. If the total value of coins in the bag is Rs.21, find the number of 25 paise coins in the bag?**

- a) 60
- b) 55
- c) 65
- d) 70

**ANS: a) 60**

**Q18. Three numbers have an average of 30. If the two numbers are 14 and 28, then the third number is?**

- a) 50
- b) 58
- c) 48
- d) 62

**ANS: c) 48**

**Explanation:**

*sum of 3 numbers =  $3 \times 30 = 90$ .*

*third number =  $90 - (14 + 28) = 48$*

**Q19. 14 men can do a work in 5 days working 4 hours a day. In how many days can 7 men do the same work, working in 10 hours a day?**

- a) 4
- b) 8
- c) 12
- d) 16

**ANS:** a) 4

**Explanation:**

$$m_1 \cdot d_1 \cdot h_1 = m_2 \cdot d_2 \cdot h_2$$

$$\rightarrow 5 \cdot 4 = 7 \cdot 10 \cdot d_2$$

$$d_2 = 4 \text{ days.}$$

**Q20.** A, B and C started a business by investing Rs 2,20,000, Rs 3,50,000 and Rs 4,50,000. Find the share out of an annual profit of Rs 10,200?

**ANS:** Their profits 22:35:45

**Explanation:**

$$\text{share of A} = \frac{22}{102} \cdot 10,200 = 2200$$

$$\text{share of B} = \frac{35}{102} \cdot 10,200 = 3500$$

$$\text{share of C} = \frac{45}{102} \cdot 10,200 = 4500$$