

Delphi TVS Aptitude, Technical Questions And Answers

I. APTITUDE TEST:

Q1. A contractor agreeing to finish a work in 150 days, employed 75 men each working 8 hours daily. After 90 days, only $\frac{2}{7}$ of the work was completed. Increasing the number of men by _____ each working now for 10 hours daily, the work can be completed in time.

- A. 140
- B. 150
- C. 59
- D. 100

ANS: B

Explanation:

*One days work = $\frac{2}{7}$ / (7 * 90) One hours work = $\frac{2}{7}$ / (7 * 90 * 8) One mans work = $\frac{2}{7}$ / (7 * 90 * 8 * 75) The remaining work ($\frac{5}{7}$) has to be completed within 60 days, because the total number of days allotted for the project is 150 days. So we get the equation $(2 * 10 * x * 60) / (7 * 90 * 8 * 75) = \frac{5}{7}$ where x is the number of men working after the 90th day. We get x = 225 Since we have 75 men already, it is enough to add only 150 men.*

Q2. The distance between Station Atena and Station Barcena is 90 miles. A train starts from Atena towards Barcena. A bird starts at the same time from Barcena straight towards the moving train. On reaching the train, it instantaneously turns back and returns to Barcena. The bird makes these journeys from Barcena to the train and back to Barcena continuously till the train reaches Barcena. The bird finally returns to Barcena and rests.

Calculate the total distance in miles the bird travels in the following two cases: (a) The bird flies at 90 miles per hour and the speed of the train is 60 miles per hour.

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(b) the bird flies at 60 miles per hour and the speed of the train is 90 miles per hour.

- A. 135,60
- B. 140,55
- C. 135,50
- D. 140,70

ANS: A

Explanation:

*There is no need to consider their meeting pt at all.the train has been running for 90 miles/ (60 miles/hr) = 1.5 hrs. bird flies till train reaches destination from starting pt. so bird flies for 1.5 hrs at the level given (90). so dist = 1.5 * 90 = 135 miles b) time of train=1 hr. so dist of bird = 60 * 1 = 60 miles.*

Q3. A square garden has fourteen posts along each side at equal interval. Find how many posts are there in all four sides?

- A. 56
- B. 52
- C. 44
- D. 60

ANS: B

Explanation:

Reqd no. of posts = 4 (at the corners) + 4 × 12 (in between on the sides) = 4 + 48 = 52

Q4. A box of 150 packets consists of 1 kg packets and 2 kg packets. Total weight of box is 264 kg. How many 2 kg packets are there?

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- A. 112.
- B. 120
- C. 114
- D. 140

ANS: C

Explanation:

$x = 2$ kg Packs $y = 1$ kg packs $x + y = 150$ Eqn 1 $2x + y = 264$ Eqn 2
Solve the Simultaneous equation; $x = 114$ so, $y = 36$ ANS : Number of 2 kg Packs = 114.

Q5. Average age of students of an adult school is 40 years. 120 new students whose average age is 32 years joined the school. As a result the average age is decreased by 4 years. Find the number of students of the school after joining of the new students?

- A. 1200
- B. 120
- C. 360
- D. 240

ANS: D

Explanation:

Let the original no. of students be x A.T.S. $40x + 120 \times 32 = (x + 120)36 \Rightarrow x = 120$ \therefore Reqd no. of students after joining the new students = $x + 120 = 240$

Q6. Shahrukh speaks truth only in the morning and lies in the afternoon, whereas Salman speaks truth only in the afternoon. A says that B is Shahrukh. Is it morning or afternoon and who is A - Shahrukh or Salman?

- A. Afternoon,salman

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- B. morning,salman
- C. Afternoon,shahrukh
- D. morning, shahrukh

ANS: A

Q7. A man was engaged on a job for 30 days on the condition that he would get a wage of Rs. 10 for the day he works, but he have to pay a fine of Rs. 2 for each day of his absence. If he gets Rs. 216 at the end, he was absent for work for ... days.

- A. 20
- B. 8
- C. 7
- D. 10

ANS: C

Explanation:

$x = 2 \text{ kg Packs}$ $y = 1 \text{ kg packs}$ $x + y = 150$ Eqn 1 $2x + y = 264$ Eqn 2
Solve the Simultaneous equation; $x = 114$ so, $y = 36$ **ANS : Number of 2 kg Packs = 114.**

Q8. Susan can type 10 pages in 5 minutes. Mary can type 5 pages in 10 minutes. Working together, how many pages can they type in 30 minutes?

- A. 20
- B. 25
- C. 65
- D. 75

ANS: D

Explanation:

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*E (30/5=6; 6*10=60; Susan will type 60 pages in 30 min. 30/10=3; 5*3=15; Mary will type 15 pages in 30 min. 60+15=75)*

Q9. A student divided a number by $\frac{2}{3}$ when he required to multiply by $\frac{3}{2}$. Calculate the percentage of error in his result.

- A. 1
- B. 0
- C. $\frac{1}{2}$
- D. none

ANS: B

Explanation:

*x = 2 kg Packs y = 1 kg packs $x + y = 150$ Eqn 1 $2x + y = 264$ Eqn 2
Solve the Simultaneous equation; $x = 114$ so, $y = 36$ ANS : Number of 2 kg Packs = 114.*

Q10. A man walks at 4 km/hr on plain, then at 3 km/hr uphill and then returns through the same road at 6 km/hr downhill and at 4 km/hr on the plain. It takes altogether 6 hours. So what distance he covered in one way?

- A. 24
- B. 18
- C. 12
- D. 10

ANS: C

Explanation:

Let plain road = x km And hill road = y km ? $\frac{x}{4} + \frac{y}{3} + \frac{y}{6} + \frac{x}{4} = 6$? $\frac{x}{2} + \frac{y}{2} = 6$? $x + y = 12$

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Q11. 30, 28, 25, 20, 34, 28,?

- A. 25
- B. 21
- C. 27
- D. 24

ANS: B

Q12. 9, 18, 21, 25, 20,?

- A. 25
- B. 30
- C. 31
- D. 19

ANS: B

Q13. 7, 6, 8, 5, 3, 7,?

- A. 4
- B. 6
- C. 9
- D. 1

ANS: A

Q14. 18, 20, 10, 12, 4, 6?

- A. 5
- B. 3
- C. 1

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D. 0

ANS: D

Q15. 3, 3, 4, 8, 10, 36,?

A. 35

B. 32

C. 33

D. 37

ANS: C

Directions for questions 16 to 20:

Read the passage and answer that follow on the basis of instruction provided in the passage:

The assault on the purity of the environment is the price that we pay for many of the benefits of modern technology. For the advantage of automotive transportation we pay a price in smog-induced diseases; for the powerful effects of new insecticides, we pay a price in dwindling wildlife and disturbances in the relation of living things and their surroundings; for nuclear power, we risk the biological hazards of radiation. By increasing agricultural production with fertilizers, we worsen water population.

The highly developed nations of the world are not only the immediate beneficiaries of the good that technology can do, that are also the first victims of environmental diseases that technology breeds. In the past, the environmental effects which accompanied technological progress were restricted to a small and relatively short time. The new hazards neither local nor brief. Modern air pollutions covers vast areas of continents: Radioactive fallout from the nuclear explosion is worldwide. Radioactive pollutants now on the earth surface will be found there for generations, and in case of Carbon-14, for thousands of years

Q16. According to the passage the increasing use of fertilisers is responsible for

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- A. abundance of food
- B. disturbance in the ecological system
- C. water pollution
- D. increase in diseases

ANS: C

Q17. Radioactive pollutants

- A. are limited in their effect
- B. will infect the atmosphere for thousands of years
- C. will be on the surface of earth for a very long time
- D. will dissipate in short span of time

ANS: C

Q18. The passage emphasis that modern technology

- A. is an unmixed blessing
- B. has caused serious hazards to life
- C. has produced powerful chemicals
- D. has benefited highly developed nations

ANS: B

Q19. The widespread use of insecticides has

- A. reduced the number of wild animals
- B. caused imbalance in the relationship between living beings and their environment
- C. eliminated diseases by killing mosquitoes and flies
- D. caused biological hazards

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ANS: B

Q20. The harmful effects of modern technology are

- A. widespread but short-lived
- B. widespread and long-lasting
- C. limited and long-lasting
- D. severe but short-lived

ANS: B

II. TECHNICAL TEST:

Q21. Which of the following statements is true regarding static variables?

- A. Both local and global variables can be defined as static variables
- B. Only local variables can be defined as static variables
- C. Scope and life of global variables is limited to the function to which they are declared
- D. none of this

ANS: A

Q22. Divide by Zero is a common exception of type

- A. Run Time
- B. Compile Time
- C. can be either Run time or Compile time
- D. none of this

ANS: A

Q23. Find the output of the code snippet

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```
char *S1 = ABCD;  
char S2[] = ABC;  
printf("%d,%d,sizeof(S1), sizeof(S2));
```

- A. 3, 4
- B. 4, 4
- C. 3, 3
- D. 4, 3

ANS: B

Q24. Which of the following is not true about C Programming?

- A. C provides function oriented programming
- B. C program can be compiled on a C++ compiler
- C. C program can be compiled on a C++ compiler
- D. none of this

ANS: D

Q25. What will be effect of size of operator on Unions?

- A. gives the size of the biggest member
- B. gives the size of sum of all members
- C. gives the size of the smallest of the members
- D. none of this

ANS: B

Q26. Which of the following statements is false?

- A. Pointers are designed for storing memory addresses
- B. Arrays are passed by value to functions

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- C. Both of the above are false
- D. none of this

ANS: C

Q27. An ampersand in front of a pointer variable gives

- A. address of the value
- B. value present at the address
- C. depends on the actual scenario
- D. none of this

ANS: A

Q28. Which of the following statements is false?

- A. Pointers are designed for storing memory addresses
- B. Arrays are passed by value to functions
- C. Both of the above are false
- D. none of this

ANS: C