

Changepond Technologies Aptitude Paper Questions

Q1. A grocer has a sale of Rs. 6435, Rs. 6927, Rs. 6855, Rs. 7230 and Rs. 6562 for 5 consecutive months. How much sale must he have in the sixth month so that he gets an average sale of Rs. 6500?

- A. Rs. 4991
- B. Rs. 5991
- C. Rs. 6001
- D. Rs. 6991

Q2. A can contains a mixture of two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially?

- A. 10
- B. 20
- C. 21
- D. 25

Q3. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

- A. 39, 30
- B. 41, 32
- C. 42, 33
- D. 43, 34

Q4. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:

- A. 200 m
- B. 225 m
- C. 245 m
- D. 250 m

Q5. When a number is first increased by 10% and then is reduced by 10%, then the number

- (1) Doesn't change
- (2) Decreases by 1%
- (3) Increases by 1%
- (4) None of these

Q6. If the diagonals of a quadrilateral bisect one another at right angles, then the quadrilateral is

- (1) Parallelogram
- (2) Rectangle
- (3) Rhombus
- (4) Trapezium

Q7. A cube of white chalk is painted red and then cut parallel to the sides to form two rectangular solids of equal volume. What percent of the surface area of each of the new solids is not painted red?

- (1) 20%
- (2) 16.67%
- (3) 15%
- (4) 25%

Q8. A man's annual income is Rs.16,000. The income tax at the rate of 15% after allowing a deduction of Rs.7,500 as non-taxable income is

- (1) Rs.1500
- (2) Rs.1200
- (3) Rs.1275
- (4) Rs.1450

Q9. A man had Rs.2000. He lent a part of it at 5% interest and the rest at 4% interest. The total interest he received in one year was Rs. 92.The money he lent at 5% interest was

- (1) Rs. 1200
- (2) Rs.1250
- (3) Rs. 1300
- (4) Rs.1350

Q10. The measure of an angle which is five times its supplement is

- (1) 36 degrees
- (2) 30 degrees
- (3) 150 degrees
- (4) 180 degrees

Q11. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is:

- A. 1 : 3
- B. 3 : 2
- C. 3 : 4
- D. None of these

Q12. A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C?

- A. Rs. 375
- B. Rs. 400
- C. Rs. 600
- D. Rs. 800

Q13. Out of 100 students, 50 fail in English and 30 in Maths. If 12 students fail in both English and Maths, then the number of students passed in both the subjects is

- (1) 26
- (2) 28
- (3) 30
- (4) 32

Q14. A man engaged a servant on the condition that he would pay him Rs.100 and a turban after one year. He served him only for nine months and received the turban and Rs.60. The price of the turban is

- (1) Rs.75
- (2) Rs.50
- (3) Rs.40
- (4) Rs.60

Q15. A and B invest in a business in the ratio 3 : 2. If 5% of the total profit goes to charity and As share is Rs. 855, the total profit is:

- A. Rs. 1425
- B. Rs. 1500
- C. Rs. 1537.50
- D. Rs. 1576

Q16. A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

- A. Rs. 4462.50
- B. Rs. 8032.50
- C. Rs. 8900
- D. Rs. 8925
- E. None of these

Q17. The average weight of 8 persons increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?

- A. 76 kg
- B. 76.5 kg
- C. 85 kg
- D. Data inadequate

Q18. Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be:

- A. Rs. 169.50
- B. Rs. 170
- C. Rs. 175.50
- D. Rs. 180

Technical Questions :-

Q1. In a one-to-many relationship, the entity that is on the one side of the relationship is called a(n) _____ entity.

- A. parent
- B. child
- C. instance
- D. subtype

Q2. Which type of entity cannot exist in the database unless another type of entity also exists in the database, but does not require that the identifier of that other entity be included as part of its own identifier?

- A. Weak entity
- B. Strong entity
- C. ID-dependent entity
- D. ID- independent entity

Q3. Acknowledgments, sequencing, and flow control are characteristics of which OSI layer?

- A. Layer 2
- B. Layer 3
- C. Layer 4
- D. Layer 7

Q4. Minimum number of queues needed to implement the priority queue?

Two. One queue is used for actual storing of data and another for storing priorities.

Q5. Explain different way of using thread?

The thread could be implemented by using runnable interface or by inheriting from the Thread class. The former is more advantageous, cause when you are going for multiple inheritance, the only interface can help.

Q6. What is wrong with this

```
abstract class MyClass  
{  
transient a,  
synchronized b.  
}
```

Q7. How can an inner class access the members of outer class?

Q8. What is a FIFO?

FIFO are otherwise called as named pipes. FIFO (first-in-first-out) is a special file which is said to be data transient. Once data is read from named pipe, it cannot be read again.

Also, data can be read only in the order written. It is used in interprocess communication where a process writes to one end of the pipe (producer) and the other reads from the other end (consumer).

Q9. What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?

- A. Application
- B. Host-to-Host
- C. Internet
- D. Network Access

Q10. Which of the following describe router functions?

- A. Packet switching
- B. Packet filtering
- C. Internetwork communication
- D. Path selection
- E. All of the above

Q11. What is the purpose of garbage collection in Java, and when is it used?

The purpose of garbage collection is to identify and discard objects that are no longer needed by a program so that their resources can be reclaimed and reused. A Java object is subject to garbage collection when it becomes unreachable to the program in which it is used.

Q12. The following are components of a database except _____ .

- A. user data
- B. metadata
- C. reports
- D. indexes