

IGNOU Openmat Solved Question Paper 2009

Question 1. A manufacturer undertakes to supply 2000 pieces of a particular component at rs 25 pr piece. According to his estimates ,even if 5% fail to pass the quality tests he wil make a profit of 25%. However as it turned out,50% of the components were rejected. What is the loss to the manufacturer?

Answer: coming soon.

Question 2. Prashanth borrowed Rs.15000 from Anil at 8%p.a. simple interest for 4 years. He then kept some money from the borrowed sum with himself and lent the remaining amount to Shafi for the same period at 15%p.a. rate of interest. If Prashanth gains Rs.150 in the whole transaction, how much money did he keep with himself?

Answer: Rs.6750

Question 3.

Answer: $10-5=5$ as we are having one bag. $5-1=4$

you will just put 5 but its wrng 4 is the correct answer

Question 4. There are 30 socks in a drawer. 60% of the socks are red and the rest are blue. What is the minimum number of socks that must be taken from the drawer without looking in order to be certain that at least two blue socks have been chosen?

- (1) 2
- (2) 3
- (3) 14
- (4) 20

Answer: (4) 20 as 60% of 30 = 18 red socks

Therefore, remaining blue socks = 12 So the minimum no. of socks that must be taken from the drawer without looking in order to be certain that at least two blue socks have been chosen is 18 red socks + 2 blue socks.

Question 5. A screwdriver and a hammer currently have the same price. If the price of a screwdriver rises by 5% and the price of a hammer goes up by 3%, how much more will it cost to buy 3 screwdrivers and 3 hammers?

- (1) 3%
- (2) 4%
- (3) 5%
- (4) 8%

Answer: (2) 4%

Question 6. If the sum of the positive integers is less than 75, what is the greatest possible value of the smallest one.

- 1) 23
- 2) 24
- 3) 25
- 4) 26

Answer: (1) let the number s be $n, n+1, n+2$.

then,

$$n+(n+1)+(n+2)=3n+3$$

$$3n+3<75$$

$$3n<72$$

$$n<24$$

so n can be 23

Question 7. if the ratio of work done by $(x-1)$ men in $(x+1)$ days to the work done by $(x+2)$ men in $(x-1)$ days is 9:10, then x is equal to

- a) 5
- b) 6
- c) 7
- d) 8

Answer: (d) 8

Question 8. At Narmada Sarovar Bachao demonstration, supporters of Ms Patkar outnumbered the police by 9 : 1. The police arrested 135 NSB supporters averaging 5 for every 3 policemen. How many supporters of NSB were there in the demonstration?

- (1) 1215
- (2) 665
- (3) 405
- (4) None of the above

Answer: (4) None of the above

Question 9. The average age of 8 persons in a committee is increased by 2 years when two men aged 35 years and 45 years are substituted by two women. The average age of these two women is:

- (1) 52 years
- (2) 56 years
- (3) 48 years
- (4) 44 years

Answer: (3) 48 years

Question 10. The average age of an adult class is 40 years. 12 new students with an average age of 32 years join the class, thereby decreasing the average by 4 years. The original strength of the class was:

- (1) 12
- (2) 11
- (3) 10
- (4) 15

Answer: (1) 12

Question 11. Angad was conducting an experiment in which the average of 11 observations came to be 90, while the average of first five observations was 87, and that of the last five was 84. What is the measure of the 6th observation?

- (1) 145
- (2) 150
- (3) 165
- (4) 135

Answer: (4) 135

Question 12. The average of marks obtained by 120 candidates was 35. If the average of the passed candidates was 39 and that of the failed candidates was 15, then the number of those candidates, who passed the examination, was:

- (1) 120
- (2) 110
- (3) 100
- (4) 150

Answer: (3) 100

Question 13. The amount of water (in ml) that should be added to reduce 9 ml lotion, containing 50% alcohol, to a lotion containing 30% alcohol, is: (1) 5 ml

- (2) 4 ml
- (3) 3 ml
- (4) 6 ml

Answer: (4) 6 ml

Question 14. A mixture of 40 liters of milk and water contains 10% water. How much water should be added to this so that water may be 20% in the new mixture?

- (1) 6.5 liters
- (2) 5 liters
- (3) 4 liters
- (4) 7.5 liters

Answer: (2)

Question 15. A papaya tree was planted 2 years ago. It increases at the rate of 20% every year. If at present, the height of the tree is 540 cm, what was it when the tree was planted?

- (1) 400 cm
- (2) 375 cm
- (3) 324 cm
- (4) 432 cm

Answer: (2) 375 cm

Question 16. A monthly return railway ticket costs 25 per cent more than a single ticket. A week's extension can be had for the former by paying 5 per cent of the monthly ticket's cost. If the money paid for the monthly ticket (with extension) is Rs 84, the price of the single ticket is:

- (1) Rs 64
- (2) Rs 80
- (3) Rs 48
- (4) Rs 72

Answer: (1) Rs 64

Question 17. If the price of gold increases by 30%, find by how much the quantity of ornaments must be reduced so that the expenditure may remain the same as before?

- 1) 30%
- 2) $23\frac{1}{3}\%$
- 3) 20%
- 4) 19%

Answer: 2) $23\frac{1}{3}\%$

Question 18. From the salary of an officer, 10% is deducted as house rent, 15% of the rest he spends on children's education and 10% of the balance, he spends on clothes. After this expenditure he is left with Rs 1377. His salary is:

- (1) Rs 2100
- (2) Rs 2040
- (3) Rs 2000
- (4) Rs 2200

Answer: (3) Rs 2000

Question 19. In an examination, there were 2000 candidates, out of which 900 candidates were boys and rest were girls. If 32% of the boys and 38% of the girls passed, then the total percentage of failed candidates is:

- (1) 68.5%
- (2) 64.7%
- (3) 35.3%
- (4) 70%

Answer: (2) 64.7%

Question 20. At the college entrance examination each candidate is admitted or rejected according to whether he has passed or failed the tests. Of the candidates who are really capable, 80% pass the tests and of the incapable, 25% pass the test. Given that 40% of the candidates are really capable, then the proportion of capable college students is about:

- (1) 73%
- (2) 70%
- (3) 68%
- (4) 75%

Answer: (3) 68%

Question 21. Out of 13 applications for a job, there are 5 women and 8 men. It is desired to select 2 persons for the job. The probability that at least one of the selected persons will be a woman is

- 1) $\frac{5}{13}$
- 2) $\frac{14}{39}$
- 3) $\frac{25}{39}$
- 4) $\frac{10}{13}$

Answer: 2) $\frac{14}{39}$

Question 22. India plays two matches each with West Indies and Australia. In any match the probabilities of India getting points 0, 1, 2 are 0.45, 0.05 and 0.50 respectively. Assuming that outcomes are independent, the probability of India getting at least 7 points is:

- (1) 0.0624
- (2) 0.06875
- (3) 0.8750
- (4) 0.0250

Answer: (2) 0.06875

Question 23. A box contains 5 brown and 4 white socks. A man takes out two socks. The probability that they are of the same color is:

- 1) $\frac{5}{18}$
- 2) $\frac{1}{6}$
- 3) $\frac{5}{108}$
- 4) $\frac{4}{9}$

Answer: 4) $\frac{4}{9}$

Question 24. A class consists of 100 students, 25 of them are girls and 75 boys; 20 of them are rich and remaining poor; 40 of them are fair complexioned. The probability of selecting a fair complexioned rich girl is:

- (1) 0.05
- (2) 0.04
- (3) 0.02
- (4) 0.08

Answer: (3) 0.02

Question 25. A person standing on the bank of a river observes that the angle of elevation of the top of a tree on the opposite bank of the river is 60° and then he retires 40 metres away from the tree the angle of elevation becomes 30° . The breadth of the river is:

- (1) 20 m
- (2) 30 m
- (3) 40 m
- (4) 60 m

Answer: (4) 60 m

Question 26. A person standing on the bank of a river finds that the angle of elevation of the top of a tower on the opposite bank is 45° . Then which of the following statements is correct?

- (1) Breadth of the river is half of the height of the tower.
- (2) Breadth of the river and the height of the tower are the same.
- (3) Breadth of the river is twice the height of the tower.
- (4) None of these

Answer: (2) Breadth of the river and the height of the tower are the same

Question 27. The angles of elevation of the top of a tower, from the top and the foot of a pole of height 10 m are 30° and 60° respectively. The height of the tower is:

- (1) 20 m
 - (2) 15 m
 - (3) 10 m
 - (4) None of these
- Answer: (2)) 15 m

Question 28. Which of the following will come in place of the Question Mark (?) in the following sequence? 6C7, 5F10, 11J14, 15O19, ?

- (1) 25U20
- (2) 20U25
- (3) 20U24
- (4) 19U25

Answer: (2)) 20U25

Question 29. Ram walks 10M South from his house, turns left and walks 23M. Again turns left and walks 40M, then turns right and walks 5M to reach his school. In which direction is the school from his house?

- (1) East
- (2) North-East
- (3) South-West
- (4) North

Answer: (2)

Question 30. If Table is called Chair, Chair is called Cot, Cot is called Pot and Pot is called Filter, where does a person sit.

- (1) Pot
- (2) Cot
- (3) Chair
- (4) Filter

Answer: (2)Cot

Question 31. Offhand is related to PERMEDITATION in the same way as Aboveboard is related to:

- (1) Guide
- (2) Honesty
- (3) Integrity
- (4) Competition

Answer: (2) Honesty

Question 32. In a class of 35 students, Kiran is placed 7th from the bottom whereas Mohan is placed 9th from the top. Sohan is placed exactly in between the two. What is Kiran's position from Sohan?

- (1) 13th
- (2) 11th
- (3) 10th
- (4) 9th

Answer: (2) 11th

Question 33. If the second, third, fifth, eighth and ninth letter of the word CONTEMPLATION are combined to form a meaningful word, what will be the middle letter of the word? If more than one such word can be formed, your answer is x and if no such words can be formed your answer is y.

- (1) A
- (2) O
- (3) x
- (4) y

Answer: (2) O

Question 34. Pointing to a photograph Arun said, 'she is the mother of my brother's son's wife's daughter.' How is Arun related to the lady?

- (1) Uncle
- (2) Daughter-in-law
- (3) Cousin
- (4) None of these

Answer: (2)) Daughter-in-law

Question 35. Which one is different from the rest three?

- (1) GIJK
- (2) DFGH
- (3) CEFG
- (4) ABCD

Answer: (4)

Question 36. ABCD is related to OPQR in the same way as WXYZ is related to:

- (1) EFGH

- (2) STUV
 - (3) KLMN
 - (4) QRST
- Answer: (3) KLMN

Question 37. The letters skipped between adjacent letters is in the order of 1, 2, 3, 4 ...Which alternative follows this rule?

- (1) DEIMR
 - (2) DFINR
 - (3) DFIMR
 - (4) DFIMS
- Answer: (3) DFIMR

Question 38. A boy goes to see a film and finds a man who is his relative. The man is the husband of the sister of his mother. How is the man related to the boy?

- (1) Brother
 - (2) Nephew
 - (3) Uncle
 - (4) None of these
- Answer: (3) Uncle

Question 39. I am facing west. I turn 45° in the clockwise direction and then 180° in same direction and then 270° anticlockwise. Which direction am I facing now?

- (1) South-west
 - (2) South
 - (3) West
 - (4) North-West
- Answer: (1) South-west

Question 40. In a month of 31 days, the third Wednesday falls on the 15th. What will be the last day of that month?

- (1) Fifth Thursday
 - (2) Fifth Wednesday
 - (3) Fourth Sunday
 - (4) Fifth Friday
- Answer: (4) Fifth Friday

Question 41. When Rajeev was born his father was 32 years older than his brother and his mother was 25 years older than his sister. If Rajeev's brother is 6 years older than Rajeev and his mother is 3 years younger than his father, how old was Rajeev's sister when he was born?

- (1) 15 years
- (2) 14 years
- (3) 7 years
- (4) 19 years

Answer: (4) 19 years

Question 42. In a party everyone gave a gift to everyone else. Three persons had brought five gifts each that were alike, besides other gifts. If the total number of gifts exchanged in the party was 15 more than 185, how many persons were there in the party?

- (1) 20
 - (2) 15
 - (3) 10
 - (4) 25
- Answer: (1) 20

Question 43. After a get-together every person present shakes the hand of every other person. If there were 105 hands-shakes in all, how many persons were present in the party?

- (1) 15
 - (2) 14
 - (3) 13
 - (4) 16
- Answer: (1) 15

Question 44. Four friends were playing a game of cards sitting in a circle. Shankar was right to Ram and Gopal was left to Arvind. Which one of the following pairs were partners?

- (1) Ram and Shankar
 - (2) Gopal and Shankar
 - (3) Ram and Arvind
 - (4) Gopal and Ram
- Answer: (4) Gopal and Ram

