**PRAGATI ENGINEERING COLLEGE**

(Autonomous)

**Training and Placement Cell**

1. Which of the following are in descending order of their value ?

(a) , , (b) (c)

(d) (e)

2. If (a+b+2c+3d) (a-b-2c+3d)=(a-b+2c-3d)(a+b-2c-3d), than 2bc is equal to :

(a) (b) (c) 3ab (d) a2d2

3. In Arun’s opinion, his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinksthat Arun’s weight is greater than 60 kg but lwss than 70 kg. His mother’s view is that his weight cannot be greater than 68 kg. If all of them are correct their estimation, what is the average of different probable weights of Arun?

(a) 67 kg (b) 68 kg (c) 69 kg

(d) Data inadequate (e) None of these

4. Rajan got married 8 years ago. His present age is times his age at the time of his marriage. Rajan’s sister was 10 years younger to his at the time of his marriage. The age of Rajan’s sister is :

(a) 32 years (b) 36 years (c) 38 years (d) 40 years

5. In an examination, the percentage of students qualified to the number of students appeared from school A is 70%. In school B, the number of students appeared is 20% more than the students appeared from school A and the number of students qualified from school B is 50% more than the students qualified from school A. What is the percentage of students qualified to the number of students appeared from school B ?

(a) 30% (b) 70% (c) 78.5% (d) 87.5%

6. The profit earned by selling an article for Rs. 832 is equal to the loss incurred when the same article is sold for Rs. 448. What should be the sale price for making 50% profit ?

(a) Rs. 920 (b) Rs. 960(c)Rs. 1060

(d)Rs. 1200 (e)None of these

7. The salaries of A, B, C are in the ratio 2: 3: 5. If the increments of 15%, 10% and 20% are allowed respectively in their salaries, then what will be the new ratio of their salaries ?

(a) 3:3:10 (b) 10:11:20 (c) 23:33:60(d) can’t be determined

8. In a business, A and C invested amounts in the ratio 2 : 1, whereas the ratio between amounts invested by A and B was 3 : 2. If Rs. 1,57,300 was their profit, how much amount did B receive ?

(a)Rs. 24,200 (b)Rs. 36,300(c)Rs. 48,400 (d)Rs. 72,600

9. A, B and C are employed to do a piece of work for Rs. 529. A and B together are supposed to do of the work and B and C together of the work. What amount should A be paid?

(a) Rs. 315 (b) Rs. 345 (c) Rs. 355 (d) Rs. 375

10. Two pipes A and B can fill a tank in 15 minutes and 20 minutes respectively. Both the pipes are opened together but after 4 minutes, pipe A is turned off. What is the total time required to fill the tank?

(a) 10 min 20 sec (b) 11 min 45 sec

(c) 12 min 30 sec (d) 14 min 40 sec

11. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On theway, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is :

(a) 100 kmph (b) 110 kmph (c) 120 kmph (d) 130 kmph

12. A train 110 metres long is running with a speed of 60 kmph. In what time will it pass a man who is tunning at 6 kmph in the directin opposite to the in which the train is going?

(a) 5 sec (b) 6 sec (c) 7 sec (d) 10 sec

13. A man can row three-quarters of a kilometer against the stream in 11 minutes. The speed (in km/hr) of the man in still water is:

(a) 2 (b) 3 (c) 4 (d) 5

14. In what ratio must a grocer mix two varieties of tea worth Rs. 60 a kg and Rs. 65 a kg so that by selling the mixture at Rs. 68.20 a kg he may gain 10% ?

(a) 3:2 (b) 3:4 (c) 3:5 (d) 4:5

15. In how much time would the simple interst on a cetain sum be 0.125 times the principal at 10% per annum?

(a) 1 (b) 1 (c) 2 (d)2

16. The difference between compound interest and simple interest on an amount of 15,000 for 2 years is Rs. 96. What is the rate of interest per annum ?

(a) 8 (b) 10 (c) Can’t be determined (d) None of these

17. In how many different ways can the letters of the word ‘SOFTWARE’ be arranged in such a way that the vowels always come together?

(a) 120 (b) 360 (c) 1440 (d) 720

18. Two cards are drawn together from a pack of 52 cards. The probability that one is a spade and one is a heart, is :

(a) (b) (c) (d)

19. Kim can do a work in 3 days while David can do the same work in 2 days. Both of them finish the work together and get Rs. 150. What is the share of Kim?

(a) Rs.30 (b) Rs. 60 (c) Rs. 70 (d) Rs. 75

20. A car covers a distance of 715 km at a constant speed. If the speed of the car would have been 10 km/ hr more, then it would have taken 2 hours less to cover the same distance. What is the original speed of the car ?

(a) 45 km/hr (b) 50 km/hr (c) 55 km/hr (d) 65 km/hr

21. A sum of money amounts to Rs. 9800 after 5 years and Rs. 12005 after 8 years at the same rate of simple interest. The rate of interest per annum is :

(a) 5% (b) 8% (c) 12 % (d) 15 %

22. A sum of money is borrowed and paid back in two annual installments of Rs. 882 each allowing 5% compound interest. The sim borrowed was:

(a) Rs. 1620 (b) Rs. 1640 (c) Rs.1680 (d) Rs. 1700

23. A shopkeeper gives 12% additional discount on the discounted price, after giving an initial discount of 20% on the labeled price of a radio. If the final sale price of the radio is Rs. 704, then what is its labeled price?

(a) Rs. 844.80 (b) Rs. 929.28 (c) Rs.1000 (d) Rs.1044.80

24. Of the 1000 inhabitants of a town, 60% are males of whom 20% are literate. If, of all the inhabitants, 25% are literate, then what percent of the females of the town are literate?

(a) 22.5 (b) 27.5 (c) 32.5 (d) 37.5

25. In a recent survey, 40% houses contained two or more people. Of those houses containing only one person, 25% were having only a male. What is the percentage of all houses which contain exactly one female and no males?

(a) 15 (b) 40 (c) 75

(d) can’t be determined (e) None of these

26. A pair of articles was bought for Rs. 37.40 at a discount of 15 %. What must be the marked price of each of the articles?

(a) Rs.11 (b) Rs.22 (c) Rs. 33 (d) Rs. 44

27. A man borrows Rs. 12,500 at 20% compound in interest. At the end of every year he pays Rs. 2000 as part repayment. How much does he still owe after three such installments?

(a) Rs.12,00 (b) Rs.12,864 (c) Rs.15,600 (d) None of these

28. A sum of money lent out at simple interest amounts to Rs. 720 after 2 years and to Rs. 1020 after a further period of 5 years. The sum is :

(a) Rs. 500 (b) Rs.600 (c) Rs.700 (d) Rs.710

29. Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?

(a)100 kmph(b)110 kmph (c) Rs.120kmph (d) Rs. 130 kmph

30. 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 3days. How much it to be paid to C?

(a) Rs. 375 (b) Rs. 400 (c) Rs. 600 (d) Rs. 800

31. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

(a) (b) (c) (d)

32. In how many different ways can the letters of the word ‘LEADING’ be arranged in such a way that the vowels always come together ?

(a) 360 (b) 480 (c) 720 (d) 5040 (e) None of these

33. The diagonal of the floor of a rectangular closet is 7 feet. The shorter side of the closet is 4 feet. What is the area of the closet in square feet?

(a)5 (b) 13 (c) 27 (d) 37

34. The difference between the simple interest on a certain sum at the rate of 10% per annum for 2 years and compound interest which is compounded every 6 months is Rs. 124.05. What is the principal sum?

(a) Rs. 6000 (b) Rs. 8000 (c) Rs. 10,000

(d) Rs. 12,000 (e) None of these

35. A lends Rs. 2500 to B and a certain sum to C at the same time at 7 % p.a, simple interest. If after 4 years, A altogether receices Rs. 1120 as interest from B and C, then the sum lent to C is :

(a) Rs. 700 (b) Rs. 1500 (c) Rs. 4000 (d) Rs. 6500

36. Two vessels A and B contain spirit and water mixed in the ratio in which these mixture be mixed to obtain a new mixture in vessel C containing spirit and water in the ratio 8:5?

(a) 4 : 3 (b) 3 : 4 (c) 5 : 6 (d) 7 : 9

37. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between he speed of the boat and speed of the water current respectively?

(a) 2 : 1 (b) 3 : 2 (c) 8 : 3

(d) Can’t be determined (e) None of these

38. A train are moving in apposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is :

(a) 36 (b) 45 (c) 48 (d) 49

39. In covering a distance of 30 km, Abhay takes 2 hours more than Sammer. If a=Abhay doubles his speed, then he would take 1 hour less than than Sameer. Abhays speed is

(a) 5 kmph (b) 6 kmph (c) 6.25 kmph (d) 7.5 kmph

40. A large tanker can be filled by two pipes A and B in 60 minutes and 40 minutes respectively. How many minuters will it take to fill the tanker from empty state if B is used for half the time and A and B fill it together for the other half?

(a) 15 min (b) 20 min (c) 27.5 min (d) 30 min

**Key**

**1.C 2.C 3.E 4.C 5.B 6.B 7.C**

**8.C 9.B 10.D 11.C 12.B 13.D 14.A**

**15.A 16.A 17.E 18.D 19.B 20.C 21.C**

**22.B 23.C 24.C 25.E 26.B 27.D 28.B**

**29.B 30.B 31.D 32.C 33.C 34.B 35.B**

**36.D 37.C 38.C 39.A 40.D**