**PRAGATI ENGINEERING COLLEGE**

(Autonomous)

**Training and Placement Cell**

**1.** Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?

(a) 4 (b) 10 (c) 15 (d) 16

**2.** A, B and C start at the same time in the same direction to rn around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they meet again at the starting point?

(a) 26 minutes 18 seconds (b) 42 minutes 36 seconds

(c) 45 minutes (d) 46 minutes 12 seconds

**3.** Arrange the fractions , , , and in their descending order.

(a) > > (b) > >

(c) > > (d) > >

**4.** Simplify : .

(a) 0.05 (b) 0.04 (c) 0.09 (d) 0.01

**5.** A man spends of his salary on house rent, of his salary on food and of his salary on conveyance. If he has Rs. 1400 left with his, find his expenditure on food and conveyance.

(a) Rs. 8000 (b) Rs. 2400 (c) Rs.1000 (d) Rs. 3000

**6.** A third of Arun’s marks in Mathematics exceeds a half of his marks in English by 30. If he got 240 marks in the two subjects together, how many marks did he get in English?

(a) 60 (b) 180 (c) 240 (d) 120

**7.** A printer number the pages of a book starting with 1 and uses 3189 digits in all. How many pages does the book have?

(a) 1000 (b) 1074 (c) 1075 (d) 1080

**8.** The value of + + + is :

(a) 2.03 (b) 2.1 (c) 2.11 (d) 2.13

**9.** x x = ?

(a) .000075 (b) .0075 (c) .075 (d) None of these

**10.** A certain factory employed 600 men and 400 women and the average wage was Rs. 25.50 per day. If a woman got Rs. 5 less than a man, then what are their daily wages ?

(a) Man : Rs. 25; Woman : Rs. 20

(b) Man : Rs. 27.50; Woman : Rs. 22.50

(c) Man : Rs. 30; Woman : Rs. 25

(d) Man : Rs. 32.50; Woman : Rs. 27.50

**11.** The arithmetic mean of the scores of a group of students in a test was 52. The brightest 20% of them secured a mean score of 80 and the dullest 25% a mean score of 31. The mean score of remaining 55% is :

(a) 45 (b) 50 (c) 51.4 approx (d) 54.6 approx

**12.** The ratio between the school ages of Neelam and Shaan is 5 : 6 respectively. If the ratio between the one-third age of Neelam and half of Shaan’s age is 5:9, then what is the school age of Shaan?

(a) 25 years (b) 30 years (c) 36 years

(d) Cannot be determined (e) None of these

**13.** The ratio between the present ages of A and B is 5:3 respectively. The ratio between A’s age 4 years ago and B’s age 4 years hence is 1:1. What is the ratio between A’s age 4 years hence and B’s age 4 years ago?

(a) 1:3 (b) 2:1 (c) 3:1 (d) 4:1 (e) None of these

**14.** Gauri went to the stationers and bought things worth Rs.25, out of which 30 paise went on sales tax on taxable purchases. If the tax rate was 6%, then what was the cost of the tax free items?

(a) Rs.15 (b) Rs. 15.70 (c) Rs. 19.70 (d) Rs. 20

**15.** 8% of the people eligible to vote are between 18 and 21 years of age. In an election, 85% of those eligible to vote, who were between 18 and 21, actually voted. In that election, the number of persons between 18 and 21, who actually voted, was what percent of those eligible to vote?

(a) 4.2 (b) 6.4 (c) 6.8 (d) 8

**16.** A dairyman pays Rs. 6.40 per liter of milk. He adds water and sells the mixture at Rs. 8 per liter, thereby making 37.5% profit. The proportion of water to milk received by the customers is :

(a) 1 : 10 (b) 1 : 12 (c) 1 : 15 (d) 1 : 20

17. Padam purchased 30 kg of rice at the rate of Rs. 17.50 per kg and another 30 kg rice at a certain rate. He mixed the two and sold the entire quantity at the rate of Rs. 18.60 per kg and made 20% overall profit. At what price per kg did he purchase the lot of another 30 kg rice ?

(a)Rs. 12.50(b)Rs. 13.50(c)Rs. 14.50(d)Rs. 15.50 (e) None

18. The ratio of the number of boys and girls in a school is 3:2. If 20% of the boys and 25% of the girls are scholarship holders, what percentage of the students does not get the scholarship?

(a) 56 (b) 70 (c) 78 (d) 80

**19.** A, B and C enter into a partnership. They invest Rs. 25 lakhs and adds another Rs. 10 lakhs after one year. B initially invests Rs. 35 lakhs and withdraws Rs. 10 lakhs after 2 years and C invests Rs. 30 lakhs. In what ratio should the profits be divided at the end of 3 years?

(a) 2 : 3 : 5 (b) 3 : 4 : 7 (c) 4 : 5 : 9 (d) None of these

**20.** A, B and C enter into a partnership in the ratio

: : . After 4 months, A increases his share by 50%. If the total profit at the end of one year e Rs. 21,600, then B’s share in the profit is :

(a) Rs. 2100 (b) Rs. 2400 (c) Rs. 3600 (d) Rs. 4000

**21.** A can finish a work in 18 days and B can do the same work in 15 days. B worked for 10 days and left the job. In how many days, A alone can finish the remaining work?

(a) 5 (b) 5 (c) 6 (d) 8

**22.** A and B can do a piece of work in 30 days, while B and C can do the same work in 24 days and C are A in 20 days. They all work together for 10 days when B and C leave. How many days more will A take to finish the work?

(a) 18 days (b) 24 days (c) 30 days (d) 20days

**23.** A car travels the first one-third of a certain distance with a speed of 10 km/hr, the next one-third distance with aspeed of 20 km/hr, and the last one-third distance with a speed of 60km/hr. The average speed of the car for the whole journey is.

(a) 18 km/hr (b) 24 km/hr (c) 30 km/hr (d) 36 km/hr

**24.** Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph; he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

(a) 8 kmph (b) 11 kmph (c) 12 kmph (d) 14 kmph

**25.** A boat running downstream covers a distance of 16 km in 2 hours while for covering the same distance upstream, it takes 4 takes 4 hours. What is the speed of the boat in still water?

(a) 4 km/hr (b) 6 km/hr(c)8 km/hr(d) Data inadequate

**26.** 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:

**27.** Nitin borrowed some money at the rate of 6% p.a for the first three years, 9% p.a for the next five years and 13% p.a. for the period beyond eight years. If the total interest paid by him at the end of eleven years is Rs. 8160, how much money did he borrow?

(a) Rs. 8000 (b) Rs. 10,000 (c) 12,000

(d) Data inadequate (e) None of these

**28.** The compound interest on Rs. 30,000 at 7% per annum is Rs. 4347. The period ( in years) is :

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

**29.** In how many years will a sum of Rs. 800 at 10% per annum compounded semiannually become Rs. 926.10?

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

**30.** 2/3 rd of the balls in a bag are blue, the rest are pink. If 5/9th of the blue balls and 7/8th of the pink balls are defectives, find the total number of balls in the bag given that the number of non defective balls is 146.

(a) 216 (b) 649 (c) 432 (d) 578

**31.** In a country, 60% of the male Citizens and 70% of the female citizens are eligible to vote. 70% of the male citizens eligible to vote voted. And 60% of female citizens eligible to vote voted. What fraction of the citizens voted during the election ?

(a) 0.49 (b) 0.42 (c) 0.48 (d) 0.54

**32.** In a 3x3 square grid comprising 9 tiles, each the can be painted in red or blue color. When the is rotated by 1800, there is. No difference which can be spotted. How many such possibilities are there?

(a) 16 (b) 32 (c) 64 (d) 256

33. Two breaker are kept on a table. The capacity of the first beaker is x liters and that of the second beaker is 2x liters. Two thirds of the first beaker and one fourth of the second beaker is filled with wine. The remaining space in both the beaker is filled with water. If the content in both these beaker are mixed in a large beaker of volume 3x iters, what is the proportion of wine the beaker?

(a)11/12 (b) 11/36 (c) 7/6 (d) 7/18

34. Of a set of 30 numbers, average of first 10 numbers=average of last 20 numbers. Than the sum of thelast 20 numbers is?

(a) 2 X sum of last ten numbers

(b) 2 X sum of first ten numbers

(c) Sum of first ten numbers

(d) Can’t be determined with given data

35. When all possible six letter arrangements of the letters of the word “ MASTER” are sorted in alphabetical order. What will be the 49th word?

(a)AREMST (b) ARMEST (c) AMERST (d) ARMSET

36. Three dice are rolled. What is the probability that you will get the sum of the numbers as 10?

(a) 27/126 (b) 25/216 (c) 10/216 (d) 1/11

37. In a telecom assembly factory, there are 250 men and 150 women. The average productivity of all workers is 12 units per day.The average productivity of me is 15 units per day. What is the average productivity of a woman per day?

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

38. Raju can do a piece of work in 10 days. Vicky in 12 days. Tinku in 15 days they all started work together. But raju leaves after2 days. Vicky leaves 3 days before the work is completed. In how many days work incomplete?

(a) 7 (b) 5 (c) 9 (d) 6

39. Two ships are sailing in the sea on the two sides of a lighthouse. The angles of elevation of the top pf the lighthouse as observed from the two ships are 300 and 450 respectively. If the lighthouse is 100 m high, the distance between the two ships is :

(a) 173 m (b) 200m (c) 273 m (d) 300 m

40. A man standing at a point P is watching the top of a tower, which makes an angle of elevation of 300 with the man’s eye. The man walks some distance towards the tower to watch its top and the angle of elevation becomes 600. What is the distance between the base of the tower and the point P?

(a) units(b) 8 units (c) 13 units

(d)Data inadequate (e) None of these

**KEY**

**1.D 2.D 3.A 4.C 5.C 6.A 7.B 8.D 9.D 10.B**

**11.C 12.D 13.C 14.C 15.C 16.A 17.B 18.C 19.B 20.D**

**21.C 22.A 23.A 24.C 25.B 26.C 27.A 28.A 29.B 30.C**

**31.B 32.B 33.D 34.A 35.B 36.A 37.C 38.A 39.C 40.C**