**PRAGATI ENGINEERING COLLEGE**

(Autonomous)

**Training and Placement Cell**

**1.** 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

**2.** A and B started a partnership business investing some amount in the ratio of 3 : 5. C joined them after six months with an amount equal to that of B. In what proportion should the profit at the end of one year be distributed among A, B and C?

(a) 3 : 5 : 2 (b) 3 : 5 : 5 (c) 6 : 10 : 5

(d) Data inadequate (e) None of these

**3.** If Rs. 782 be divided into three parts, proportional to : : , then the first part is :

(a) Rs.182 (b) Rs.190 (c) Rs.196 (d) Rs.204

**4.** Arun purchased 30 kg of wheat at the rate of Rs. 11.50 per kg and 20 kg wheat at the rate of Rs. 14.25 per kg. He mixed the two and sold the mixture. Approximately what price per kg should he sell the mixture to make 30% profit?

(a) Rs. 14.80 (b) Rs. 15.40 (c) Rs. 14.50

(d) Rs. 15.50 (d) Rs. 18.20

**5.** Fresh fruit contains 68% water and dry fruit contains 20% water. How much dry fruit can be obtained from 100 kg of fresh fruits?

(a) 32 kg (b) 40 kg (c) 52 kg (d) 80 kg

**6.** The sum of the ages of 5 childred born at the intervals of 3 years each is 50 years. What is theage of the youngest child?

(a) 4 years (b) 8 year (c) 10 years (d) None of these

**7.** A student was asked to find the arithmetic mean of the numbers 3, 11, 7, 9, 15, 13, 8, 19, 17, 21, 14 and x. He found the mean to be 12. What should be the number in place of x?

(a) 3 (b) 7 (c) 17 (d) 31

**8.** If = 3, then find the value of

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

**9.** Which of the following are in descending order of their value?7

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

**10.** A score 30% marks and failed by 15 marks. B scored 40% marks and obtained 35 marks more than those required to pass. The pass percentage is :

(a) 33% (b) 38% (c) 43% (d) 46%

**11.** A bag marked at Rs. 80 is sold for Rs. 68. The rate of discount is :

(a) 12% (b) 15% (c) 17 (d) 20%

**12.** What annual payment will discharge a debt of Rs. 1025 due in 2 years at the rate of 5% compound interest ?

(a) Rs. 550 (b) Rs.551.25 (c) Rs. 560 (d) Rs. 560.75

**13.** A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is :

(a) Rs. 650 (b) Rs. 690 (c) Rs. 698 (d) Rs. 700

**14.** A rectangle of certain dimensions is chopped off from one corner of a larger rectangle as shown. AB = 8 cm and BC = 4 cm. The perimeter of the figure ABCPQRA ( in cm )

(a) 24 (b) 28 (c) 36 (d) 48

**15.** A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms always from A at the same time. One the way, 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

**16.** A and B together can complete a work in 12 days. A alone can complete it in 20 days. If B does the work only for half a day daily, then in how many days A and B together will complete the work ?

(a) 10 days (b) 11 days (c) 15 days (d) 20 days

**17.** In a box, there are 8 red, 7 blue and 6 green balls. One ball is picked up randomly. What is the probability that it is neither red nor green?

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

**18.** In how many different ways can the letters of the word ‘DETAIL’ be arranged in such a way that the vowels occupy only the odd positions?

(a) 32 (b) 48 (c) 36 (d) 60 (e) 120

**19.** A rectangle has width a and length b. If the width is decreased by 20% and the length is increased by 10%, then what is the area of the new rectangle in percentage compared to ‘ab’?

(a) 80% (b) 88% (c) 110% (d) 120%

**20.** On a sum of money, the simple interest for 2 years is Rs. 660, while the compound interest is Rs. 696.30, the rate of interest being the same in both the cases. The rate of interest is :

(a) 10% (b) 10.5% (c) 12% (d) None of these

**21.** A lent Rs. 5000 to B for 2 years and Rs. 3000 to C for 4 years on simple interest at the same rate of interest and received Rs. 2200 in all from both of them as interest. The rate of interest per annum is :

(a) 5% (b) 7% (c) 7 (d) 10%

**22.** A jar full of whisky contains 40% alcohol. A part of this whisky is replaced by another containing 19% alcohol and now the percentage of alcohol was found to be 26%. The quantity of whisky replaced is :

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

**23.** A man’s speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man’s speed against the current is:

(a) 8.5 km/hr (b) 9 km/hr (c) 10 km/hr (d) 12.5 km/hr

**24.** Two goods train each 500 m long, are running in opposite directions on parallel tracks. Their speeds are 45 km/hr and 30 km/hr respectively. Find the time taken by the slower train to pass the dricer of the faster one.

(a) 12 sec (b) 24 sec (c) 48 sec (d) 60 sec

**25.** In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and time of flight increased by 30 minutes. The duration of the flight is :

(a) 1 hour (b) 2 hours (c) 3 hours (d) 4 hours

**26.** Two pipes can fill a tank in 20 and 24 minutes respectively and a waste pipe can empty 3 gallons per minute. All the three pipes working together can fill the tank in 15 minutes. The capacity of the tank is :

(a)60gallons(b)100gallons (c) 120 gallons(d) 180 gallons

**27.** 10 men can complete a piece of work in 15 days and 15 women can complete the same work in 12days. If all the 10 and 15 women work together, in how many days will the work get completed?

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

**28.** A, B and C enter into a partnership and their share are in the ratio : : . After 2 months, A withdraws half of his capital and after 10 months, a profit of Rs. 278 is divided among them. What is B’s share ?

(a) Rs. 129 (b) Rs. 144 (c) Rs. 156 (d) Rs. 168

**29.** Two numbers are in the ratio 1 : 2 If 7 is added to both, their ratio changes to 3 : 5. The greatest number is :

(a) 24 (b) 26 (c) 28 (d) 32

**30.** By mixing two brands of tea and selling the mixture at the rate of Rs. 177 per kg, a shopkeeper makes a profit of 18%. If to every 2 kg of one brand costing Rs. 200 per kg, 3 kg of the other brand is added, then how much per kg does the other brand cost ?

(a) Rs. 110 (b) Rs. 120 (c) Rs. 140 (d) None of these

**31.** How much pure alcohol has to be added to 400 ml of a solution containing 15% alcohol to change the concentration of alcohol in the mixture to 32%

(a) 60 ml (b) 68 ml (c) 100 ml (d) 120 ml

**32.** A father said to his son, “ I was as old as you are at present at the time of your birth” If the father’s age is 38 years now, the son’s age five years bank was :

(a) 14 years (b) 19 years (c) 33 years (d) 38 years

**33.** The batting average for 40 innings of a cricket player is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, the average of the reaming 38 innings is 48 runs. The highest score of the player is:

(a) 165 runs (b) 170 runs (c) 172 runs (d) 174 runs

**34.** If = = , then the value of is :

(a) (b) (c) 2 (d) 7

**35.** Which of the following fractions is the smallest ?

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

**36.** In an examination, there are three papers and a candidate has to get 35% of the total to pass. In one paper, he gets 62 out of 150 and in the second 35 out of 150. How much must he get, out of 180, in the third paper to just qualify for a pass?

(a) 60.5 (b) 68 (c) 70 (d) 71

**37.** Garima purchased a briefcase with an additional 10% discount on the reduced price after deduction 20% on the labeled price. If the labeled price was Rs. 1400, at what price did she purchase the briefcase?

(a) Rs. 980 (b) Rs. 1008 (c) Rs.1056

(d) Rs. 1120 (e) None of these

**38.** A man borrows Rs. 2550 to be paid back with compound interest at the rate of 4% per anum by the end of 2 years in two equal yearly instalments. How much will each installment be?

(a) Rs.1275 (b) Rs.1283 (c) Rs.1352 (d) Rs.1377

**39.** An automobile financier claims to be lending money at simple interest. But he includes the interest every six months for calculating the principal. If he is charging an interest of 10%, the effective rate of interest becomes:

(a) 10% (b) 10.25% (c) 10.5% (d) None of these

**40.** In covering a distance of 30 km, Abhay takes 2 hours more than Sameer. If Abhay doubles his speed, then he would take 1 hour less than Sameer. Abhay’s speed is :

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

**KEY**

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

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

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

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