**PRAGATI ENGINEERING COLLEGE**

(Autonomous)

**Training and Placement Cell**

**GRAND TEST-1 (08/05/2019)**

**1.** The least number which when divided by 5, 6, 7 and 8 leaves a remainder 3, but when divided by 9 leaves no remainder, is:

(a) 1677 (b) 1683 (c) 2523 (d) 3363

**2.** A rectangular courtyard 3.78 meters long and 5.25 meters wide is to be paved exactly with square tiles, all of the same size. What is the largest size of the tile which could be used for the purpose?

(a) 14 cms (b) 21 cms (c) 42 cms (d) None of these

**3.** A boy was asked to multiply a number and by 25. He instead multiplied the number by 52 and got the answer 324 more than the correct answer. The number to be multiplied was :

(a) 12 (b) 15 (c) 25 (d) 32

**4.** The average weight of 45 students in a class is 52 kg. Five of them whose average weight is 48 kg leave the class and other 5 students whose average weight is 54 kg join the class. What is the new average weight (in kg) of the class?

(a) 52 (b) 52 (c) 52 (d) None of these

**5.** The total age of A and B is 12 years more than the total age of B and C. C is how many years younger than A?

(a) 12 (b) 24 (c) C is elder than A

(d) Data inadequate (e) None of these

**6.** Q is as much younger than R as he is older than T. If the sum of the ages of R and T is 50 years, what is definitely the difference between R and Q’s age?

(a) 1 year (b) 2 years (c) 25 years

(d) Data inadequate (e) None of these

**7.** A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?

(a) 3 (b) 4 (c) 5 (d) 6

**8.** A trader mixes three varieties of groundnuts costing Rs. 50, Rs. 20 and Rs. 30 per kg. in the ratio of 2:4:3 and sells the whole mixture at Rs 33per kg What percentage of profit does he make?

(a) 8% (b) 9% (c) 10% (d) None of these

**9.** A began a business with Rs. 85,000. He was joined afterwards by B with Rs. 42,500. For how much period does B join, if the profits at the end of the day year are divided in the ratio of 3:1?

(a) 4 months (b) 5 months (c) 6 months (d) 8 months

**10.** Two friends P and Q started a business investing in the ratio of 5 : 6. R joined them after six months investing an amount equal to that of Q’s. at the end of the year, 20% profit was earned which was equal to Rs. 98,000. What was the amount invested by R?

(a) Rs. 1,05,000 (b) Rs. 1,75,000 (c) Rs. 2,10,000

(d) Data inadequate (e) None of these

**11.** Two workers A and B are engaged to do a work. A working alone takes 8 hours more to complete the job than in both worked together. If B worked alone, he would need 4 hours more complete the job than they working together. What time would they take to do the work together?

(a) 4 hours (b) 5 hours (c) 6 hours (d) 7 hours

**12.** A is twice as good a workman as B and together they finish a piece of work in 14 day. The number of days taken by A alone to finish the work is :

(a) 11 (b) 21 (c) 28 (d) 42

**13.** Gauri went to the stationers and bought things worth Rs.25, out of which 30 paisa 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

**14.** A and B walk around a circular track. They star at 8 a.m. from the same point in the opposite directions. A and B walk at a speed of 2 rounds per hour and 3 rounds per hour respectively. How many times shall they cross each other before 9.30 a.m.?

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

**15.** A train 125 m long passes a man, running at 5 kmph in the same direction in which the train is going, in 10 seconds. The speed of the train is :

(a) 45 km/hr (b) 50 km/hr (c) 54 km/hr (d) 55 km/hr

**16.** A boat covers a certain distance downstream in 1 hour, while it comes back in 1 hours. If the speed of the stream be 3 kmph, what is the speed of the boat in still water?

(a) 12 kmph (b) 13 kmph (c) 14 kmph

(d) 15 kmph (e) None of these

**17.** In what ratio must water be mixed with milk to gain 16 % on selling the mixture at cost price?

(a)1:6 (b) 6:1 (c) 2:3 (d) 4:3

**18.** 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 receives 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

**19.** A man saves Rs. 200 at the end of each year and lends the money at 5% compound interest. How much will it become at the end of 3 years?

(a) Rs. 565.25 (b) Rs. 635 (c) Rs. 662.02 (d) Rs. 666.50

**20.** Sam invested Rs. 15000 @ 10% per annum for one year. If the interest is compounded half-yearly, then the amount received by Sam at the end of the year will be :

(a) Rs. 16,500 (b) Rs. 16,525.50 (c) Rs. 16,537.50

(d) Rs. 18,150 (e) None of these

**21.** If the area of a rectangular plot increases by 30% while its breadth remains same, what will be the ration of the areas of new and old figures?

(a) 1:3 (b) 3:1 (c) 4:7 (d) 10:13 (e) None of these

**22.** The areas of the three adjacent faces of a rectangular box which meet in appoint are known. The product of these areas is equal to :

(a) the volume of the box

(b) twice the volume of the box

(c) the square of the volume of the box

(d) the cube root of the volume of the box

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

(a) 48 (b) 120 (c) 124 (d) 160 (e) None of these

**24.** A bag contains 6 white and 4 red balls. Three balls are drawn at random. What is thre probability that one ball is red and the other two are white?

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

**25.** On the same side of a tower, two objects are located. Observed from the top of the tower, their angles of depression are 45­0 and 600. If the height of the tower is 150 m, the distance between the objects is :

(a) 63.5 m (b) 76.9 m (c) 86.7 m (d) 90 m

**26.** If a lemon and an apple together costs Rs. 12.00, a tomato and a lemon cost Rs. 4.00 and an apple cost Rs 8.00 more than a tomato or a lemon, then which of the following can be the price of a lemon.

(a) Rs. 2 (b) Rs. 4 (c) Rs. 1 (d) Rs. 3

**27.** A boy buys 18 sharpeners (brown or white for Rs. 100. For very white sharpener, he pays one rupee more than the brown sharpener. What is the cost of white sharpener and how much did he buy?

(a) 5, 13 (b) 5, 10 (c) 6, 10 (d) None of these

**28.** A merchant buys 20 kg of wheat at Rs. 30 kg and 40 kg of wheat at Rs. 25 per kg. He mixes them and sells one third of the mixture at Rs. 27 per kg. The price at which the merchant should sell the remaining mixture so that he may earn profit of 25% on his whole outlay is.

(a) Rs. 30 (b) Rs. 40 (c) Rs. 360 (d) Rs. 37

**29.** A travels at 40 kmph and, B travels at 60 kmph. They are traveling towards each other and start at the same time. By the time they meet, B would have travelled 120 km more than A. Find the total distance.

(a) 600 km (b) 720 km(c) 400 km(d) 540 km

**30.** In this question. AB means A raised to the power B. If x\*y 2\*z<0. Then which one the following statements must also be true?

(a) XZ<0 (b) Z<0 (c) a and b (d) None

**31.** The addition 641+852+973 = 2456 is incorrect. What is the largest digit that can be changed to make the addition correct

(a) 5 (b) 6 (c) 4 (d) 7

**32.** If all the number between 11 and 100 are written on a piece of paper, how many times will the number’4’ be used?

(a) 20 (b) 19 (c) 9 (d) None of these

**33.** a, b, c are non negative integers such that 28a+30b+31c = 365. Then a+b+c is:

(a) >13 (b) <=11 (c) 13 (d) 12

34. If M is 30% of Q, Q is 20% of P, and N is 50% of P, then M/N is

(a) 4/3 (b) 3/25 (c) 6/5 (d) 3/250

**35.** There is a pool of radius X and there is a pathway around the pool with a width, of 4 feet. Fine the radius of the pool if the path area, pool area=11/25

(a) 12 (b) 20 (c) 25 (d) 29

**36.** A workman starts his work on Monday works for 8 days and takes every 9th day as his holiday. his 12th holiday will fall on

(a)Monday (b) Tuesday (c) Wednesday (d) Thursday

**37.** George can do some work in 8 hours. Paul can do the same work in 10 hours while Hari can do the same work in 12 hours. All the 3 of them start working at 9am while George stops work at 11 am and the remaining two complete the work. At what time the work will be finished.

(a)11:30 am (b)1pm (c)2pm (d) 12:30 pm

**38.** In a stair case there are 10 steps. A child is wants to climb the staircase. Each time she make either 1 or 2 steps. In how many different ways can she climb the staircase.

(a)10 (b)21 (c)36 (d)none

**39.** A alone can do the 1/4th of work in 2 days. B alone can do the 2/3rd of the work in 4 days. If all the three work together ,they can complete the work in 3 days so what part of the work will be completed in c in 2 days.

(a)1/12 (b)1/8 (c)1/16 (d)1/20

**40.** If x^y denotes x raised to the power of y find the last 2 digits of (1941^3843)+(1961^4181)

(a)02 (b)82 (c)42 (d)22

**KEY**

**1.B 2.B 3.A 4.C 5.A 6.D 7.C 8.C 9.D 10.C 11.C 12.B 13.C**

**14.C 15.B 16.D 17.A 18.B 19.B 20.D 21.E 22.C 23.A 24.A 25.A 26.A**

**27.C 28.D 29.A 30.A 31.D 32.B 33.D 34.B 35.B 36.E 37.B 38.D 39.A 40.B**