

**A14**

**SET 2**

**Sreenidhi Institute of Science & Technology**

(An Autonomous Institution)

**Code No:4HC76 Date:10-Dec-16(FN)**

**B. TECH. III – Year I – Semester Examinations, Nov/Dec, 2016 (Regular)**

**QUANTITATIVE APTITUDE (Common to ME and BT)**

**Time: 90 Minutes Max.Marks: 50**

**Note: Answer Any 50 Questions.**

**Student can solve more than 50 questions, but maximum 50 marks will be awarded.**

**Calculators are not allowed.**

1)In a 1000 m race Usha beats Shiny by 50 m. In the same race, by what time margin Shiny beat Mercy who runs at 4 m/s ?

a) 100 sec.       b) 50 sec         c) 25 sec          d) Data not sufficient

2) A train which has 390 m long, is running 45 kmph. In what time will it cross a person moving at 9 kmph in same direction ?

a) 26 sec          b) 39 sec          c)36 sec           d)29 sec.

3) A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

a.  Rs. 4462.50 b.  Rs. 8032.50 c.  Rs. 8900 d.  Rs. 8925

4)Find the smallest number which leaves 22,35, 48 and 61 as remainders when divided by 26, 39, 52 and 65 respectively.  
 a)760 b)776 c)766 d)780  
5)Let p and q be two prime numbers such that p is greater than q. If 319 is their LCM then the difference of thrice of q and p is:  
 a)1 b)0 c)4 d)9  
6)Let 13 and 273 are the HCF and LCM of two numbers respectively, and if one of them is less than 140 and greater than 60 then what will be that number?  
 a) 121 b) 91 c) 75 d) 131  
7) what is the sum of the squares of the first 20 natural numbers (1 to 20)?   
 a. 2870  b. 2000 c. 5650 d. 44100

8) How many divisors (including 1, but excluding 1000) are there for the number 1000?   
 a. 15 b. 16 c. 31 d. 10

9) The times taken by a phone operator to complete a call are 2,9,3,1,5 minutes respectively. What is the average time per call?   
 a. 4 minutes b. 7 minutes c. 1 minutes d. 5 minutes

10)Of the 38 people in my office, 10 like to drink chocolate, 15 are cricket fans, and 20 neither like chocolate nor like cricket. How many people like both cricket and chocolate?   
 a. 7  b. 10 c. 15 d. 18  
11) If f(x) = 2x+2 what is f(f(3))?   
 a. 18  b. 8 c. 64 d. 16   
12)12 members were present at a board meeting. Each member shook hands with all of the other members before & after the meeting.How many hand shakes were there?

a) 130 b) 134 c) 132 d) 135

13) Square of two more than a two digit number is multiplied and divided by 2 and 5 respectively. If twice of the result is equal to 500 then find the number?

a) 45 b) 23 c) 87 d) 47

14) A can do a piece of work in 100 days, B and C together can do the same work in 20 days. If B can do the work in same time as that of C and A together then how long C alone can do the same work?

a) 100 days b) 50days c) 25days d) 20 days

15) If the radius of a circle is increased by 20% then the area is increased by :  
 a. 44% b. 120% c. 144% d. 40%

16) A father is three times as old as his son. After fifteen years the father will be twice as old as his son's age at that time. Hence the father's present age is  
 a. 36 b. 42 c. 45 d. 48

 17) If on an item a company gives 25% discount, they earn 25% profit. If they now give 10% discount then what is the profit percentage.  
 (a) 40% (b) 55% (c) 35% (d) 30%   
18) A certain number of men can finish a piece of work in 10 days. If however there were 10 men less it will take 10 days more for the work to be finished. How many men were there originally?  
 (a) 110 men (b) 130 men (c) 100 men (d) none of these

 19)In simple interest what sum amounts of Rs.1120/- in 4 years and Rs.1200/- in 5 years ?  
 (a) Rs. 500 (b) Rs. 600 (c) Rs. 800 (d) Rs. 900   
20)If a sum of money compound annually amounts of thrice itself in 3 years. In how many years will it become 9 times itself?  
 (a) 6 (b) 8 (c) 10 (d) 12   
21) Two trains move in the same direction at 50 kmph and 32 kmph respectively. A man in the slower train observes the 15 seconds elapse before the faster train completely passes by him. What is the length of faster train ?  
 (a) 100m (b) 75m (c) 120m (d) 50m   
22) The price of sugar increases by 20%, by what % should a housewife reduce the consumption of sugar so that expenditure on sugar can be same as before ?  
 (a) 15% (b) 16.66%  (c) 12% (d) 9%   
23)A man spends half of his salary on household expenses, 1/4th for rent, 1/5th for travel expenses, the man deposits the rest in a bank. If his monthly deposits in the bank amount 50, what is his monthly salary ?  
 (a) Rs.500 (b) Rs.1500 (c) Rs.1000 (d) Rs. 900   
24)15 men take 21 days of 8 hrs. each to do a piece of work. How many days of 6 hrs. each would it take for 21 women if 3 women do as much work as 2 men?  
 a) 10% b) 6% c) 8% d) 9%   
25)An article sold at amount of 50% the net sale price is rs 425 .what is the list price of the article?  
 a) 500 b) 488 c) 480 d) 510   
26) A works thrice as much as B. If A takes 60 days less than B to do a work then find the number of days it would take to complete the work if both work together?  
 a) 22 days b)30days c)25days d)none

27)If a person sells a product for rs141/- he suffers a loss of 6%.if he has to have a profit of 10%, at what price should he sell it?

a) Rs.165 b)Rs.200 c)Rs.185 d)Rs.195

28)A certain number of bullets were shared by 3 people equally.Each of them fired 4 bullets and the sum of the  remaining bullets was equal to the initial share each had got.what was the initial number of bullets?

a)10 b) 18 c)14 d)16

29) In a class, except 18 all are above 50 years.15 are below 50 years of age. How many people are there?

(a) 30 (b) 33 (c) 36 (d) none of these.

 30) In an exhibition, the entrance ticket for Kids was Rs.16 and Rs.20 for adults. Every year, adult's cost increases by 25% more than kids increase rate which is 25%. What will be the difference of their ticket cost after 2 years?  
 a) Rs.16 b) Rs.15 c) Rs.20 d) Rs.18  
31) If pq=28 where p and q are whole numbers then which of the following will be (p2 - q2)?  
 a) 32 b) 83 c) 783 d) cannot be determined.  
32) There was one mess for 30 boarders in a certain hostel. If the number of boarders is increased by 10, the expenses of the mess were increased by ` 4,000 per month, while the average expenditure per head diminished by ` 200. Find the original monthly expenses.  
 a. 36,000 b. 41,000 c. 39,000 d. 48,000  
33) A train 300 m long is running at a speed of 90 km/h. How many seconds will it take to cross a 200 m long train running in the opposite direction at a speed of 60 km/h?

a. 12 b. 36/5 c. 60 d. 20

34)How many kg of sugar costing Rs. 57.5 per kg should be mixed with 75 kg of cheaper sugar costing Rs. 45 per kg so that the mixture is worth Rs. 55 per kg?  
 a. 350kg b. 300kg c. 50kg d. 325kg  
35)What is the smallest number by which 2880 must be divided in order to make it into a perfect square ?  
 (a) 3    (b) 4          (c) 5            (d) 6

36) A father is 30 years older than his son however he will be only thrice as old as the son after 5 years  what is father's present age ?  
 (a) 40 yrs          (b) 30 yrs      (c) 50 yrs      (d) none of these

37)5 men or 8 women do equal amount of work in a day. a job requires 3 men and 5 women to finish the job in 10 days how many woman are required to finish the job in 14 days.  
 a) 10    b) 7            c) 6            d) 12

38) A simple interest amount of rs 5000 for six month is rs 200. what is the anual rate of interest?  
 a) 10%          b) 6%           c) 8%          d) 9%

39) A boat travels 20 kms upstream in 6 hrs and 18 kms downstream in 4 hrs. Find the speed of the boat in still water and the speed of the water current?

(a) 1/2 kmph (b) 7/12 kmph (c) 5 kmph (d) none of these

40) A goat is tied to one corner of a square plot of side 12m by a rope 7m long. Find the area it can graze?

(a) 38.5 sq.m (b) 155 sq.m (c) 144 sq.m (d) 19.25 sq.m

 41) The average monthly salary of 12 workers and 3 managers in a factory was Rs. 600. When one of the manager whose salary was Rs. 720, was replaced with a new manager, then the average salary of the team went down to 580. What is the salary of the new manager?   
 a)Rs 570 b)Rs 420 c)Rs 690 d)Rs 640

42)The H.C.F. of two numbers is 11 and their L.C.M. is 7700. If one of the numbers is 275, then the other is:  
 a)279 b)283 c)308 d).318  
43) How many digits will be there to the right of the decimal point in the product of 95.75 and .02554 ?  
 a)5 b)6 c)7 d)None of these

 44)20% of a 6 litre solution and 60% of 4 litre solution are mixed. What percentage of the mixture of solution  
 a) 36% b)34% c)46% d)50%

45) Two cars are 15 kms apart. One is turning at a speed of 50kmph and the other at 40kmph . How much time will it take for the two cars to meet?  
 a)3/2 hrs b)3hrs c)2hrs d)5/2hrs

46) If a and b are positive integers and (a-b)/3.5 = 4/7, then

(A) b < a (B) b > a (C) b = a (D) b >= a

47) What is the selling price of a car if the cost of the car is Rs.60 and a profit of 10% over selling price is earned?

a.  Rs 68 b.  Rs 67 c.  Rs 69 d.  Rs 66

48) If 9x-3y=12 and 3x-5y=7 then 6x-2y = ?

a.  -5 b.   4 c.   2 d.   8

49) What is the smallest number of ducks that could swim in this formation - two ducks in front of a duck, two ducks behind a duck and a duck between two ducks ?  
 a. 3 b. 5 c. 7 d. 9  
50)A girl counted in the following way on the fingers of her left hand : She started by calling the thumb 1, the index finger 2, middle finger 3, ring finger 4, little finger 5 and then reversed direction calling the ring finger 6, middle finger 7 and so on. She counted upto 1994. She ended counting on which finger ?  
 a. Thumb b. Index finger c. Middle finger d. Ring finger  
51) An institute organised a fete and 1/5 of the girls and 1/8 of the boys participated in the same. What fraction of the total number of students took part in the fete ?  
 a. 2/13 b. 13/40 c. Data inadequate d. None of these  
52) x% of y is y% of?

(a) x/y (b) 2y (c) x  d) can't be determined

**53) How many seconds will a 500 meter long train moving with a speed of 63 km/hr, take to cross a man walking with a speed of 3 km/hr in the direction of the train?** a) 42 b) 50 c) 28 d) 30

**54) One pipe can fill a tank four times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, then the slower pipe alone will be able to fill the tank in:**  
 a) 144 min b) 180 min. c) 126 min d) 114 min

**55) A can do a particular work in 6 days. B can do the same work in 8 days. A and B signed to do it for Rs.3200.They completed the work in 3 days with the help of C.How much to be paid to C?**   
 a) Rs. 380 b) Rs. 600 c) Rs. 420 d) Rs. 400

**56) Four different electronic devices make a beep after every** 30 minutes**, 1** hour**, 3/2 hour and 1 hour 45 minutes respectively. All the devices beeped together at 12 noon. They will again beep together at:**  
 a)12 midnight b)2: 3 a.m. c) 3: 6 a.m. d) 4: 9 a.m.

**57) What is the least multiple of 7 which leaves a remainder of 4 when** divided **by 6, 9,15 and 18 ?**  
 a) 364 b) 350 c) 343 d) 371

**58) How money factors do 400 have?**  
 a) 8 b) 10 c) 15 d) 12

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| 59) What is price of a pair of sandles is decreased by 10% the number of pair sold incresed by 20%. What is next effect on sells?  a)8% dec b)10% dec c)10% inc d) 8% inc  60) Jake can dig a well in 16 days. Paul can dig the same well in 24 days. Jake, Paul and Hari together dig the well in 8 days. Hari alone can dig the well in  a)96 days b)48 days c)32 days d)24 days |

61)Mark told John "If you give me half your money I will have Rs.75. John said, "if you give me one third of your money, I will have Rs.75/- How much money did John have ?  
 a) 45 b) 60 c) 48 d) 37.5  
62) The unit’s digit in the product (3127)173  is:

a. 1                 b. 3                  c. 7                  d. 9

63) The sum of three consecutive odd numbers is always divisible by:

a. 2                   b. 3                 c. 5                d. 6

64) The difference between the local value and face value of 7 in the numeral 657903 is:

a. 0                 b. 7896            c. 6993           d. 903

65)The  C.P  of  21  articles  is  equal  to  S.P  of  18  articles.  Find  the  gain or  loss  percent.

a.10% b. 18 1/3% c. 16 2/3 d. 20%

66)On  an  article,the  manufacturer  gains10%,  the  wholesale   dealer15%  and  the  retailer  25%,  If  its  retail  price   is  1265,  what  is the  cost  of  its  production?

a. 1000 b. 800 c. 1100 d. 900

67)A  dealer  professing  to  sell  his  goods  at  cost  price,  uses  900gm  weight  for  1 kg.  His  gain  percent  is

a. 13% b 12 1/3% c. 11 1/9% d.10%

68)With  the  money  I  have , I can  buy  50  pens  or  150  pencils.  I kept  10%  aside  for  taxi  fare.   With  the  remaining  , I  purchased  54 pencils  and  P  pens.  What  is  the  value  of  P?

a. 32 b. 30 c. 27 d. None  of  these

69)If Athul  rows 16 km upstream and 24 km down steam  taking 4 hours each, then the speed of the stream

a) 1kmph  b)2kmph            3)1.5 kmph      12 kmph

70) If a man rows at the rate of 6 kmph in still water and his rate aginst the current is 4.5 kmph, then  the man’s rate along the current is

a) 6 kmph  b)7.5 kmph     c) 6.5kmph      d) 8 kmph

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