## Syntel Sample Paper

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## Quantitative time: 30 min

1. Maximum numbers that can be formed using all the 4 digits $6,4,8,1$ without repetition and which is divisible by 9 ? Ans:none
2.) Find the number of sides of a regular convex polygon whose angle is 40 degrees. Ans:
(360/40=90)
3.) If $a+b+c=0$, then roots of $a x^{2}+b x+c=0$ is a.imag b.real c.coincidental d.zero
4.) Difference between the Cl and SI for 2 years on a sum of money is Rs . 60 . If the SI for 2 years is
Rs.1440.find the rate of interest.
a) 4 1/6 \%
b) $6 \frac{1}{4} \%$
c) $8 \%$
d) $81 / 3 \%$

Ans: R.s.agarwaal (exercise $28^{\text {th }}$ sum) ans is d
5) The minimum number by which 60 is to be multiplied to generate a perfect square is
a) 600
b) 900
c) 1200
d) 3600
ans (15)
6) A bucket contains ' $z$ ' drops and it leaks ' $x$ ' drops in ' $t$ ' secs. Then the time required to empty the bucket (in minutes)? Ans:zt/60x mints.
7) Find the largest number which is a factor of 1080 and 729. ans:27
8) Number of spheres of radius 1 that can be got from sphere of diameter 8. ans:64
9) Excluding stoppages, the speed of the bus is 54 kmph , and including stoppages, it is 45 kmph .

For how many minutes does the bus stop per hour? a) $9 \quad$ b) $10 \quad$ c) $12 \quad$ d) 20 ans:c
10) If two pipes function simultaneously the tank will be filled in 12 hrs.one pipe fills the tank 10 hrs faster than the other. How many does the second pipe takes to fill the tank?a)25 hrs b) 28
hrs
c) 30 hrs
d) 35 hrs ans:c
11)There are 6 keys and 6 locks. Then number of combinations to be tried out to get the actual
solution?
a) 56
b) $6^{5}$
c) 6 !
d) 5 !
12) How many combinations are required for choosing 2 people out of 10 so that a particular person be always included?
13) From 6 white balls and 7 black balls probability that 2 balls drawn at random are of the same color?
14)If a sales man gets successive gain of $15 \%$ and $20 \%$ then his actual gain ? ans: 38
15)From a string of pearls $1 / 3$ is lost and of that $1 / 4^{\text {th }}$ is missing, remaining is 20 then actual number of pearls? ans. 40
16) A man gets a gain of $x \%$. But if he had sold at twice the cost price, what will be his gain?
a. $2 x$
b. 200-2x
c. $100+x$
d. 100+2x ans:c
17) A watch which gains uniformly ia 2 min slow at noon on Monday and is 4 min 48 secs fast at 2 pm on the following Monday. When was it correct?
a. 2 pm on Tuesday b. 2 pm on Wednesday c .3 pm on Thursday d .1 pm on friday ans:b
18) A boat moves upstream in 6 hrs and covers the same distance downstream in 5 hrs. Then speed of a raft floating is
19) If $x$ men working $x$ hrs per day can do $x$ units of work in $x$ days, then $y$ men working $y$ hrs/day would be able to complete how many units of work in $y$ days? ans: $y^{\wedge} 3 / x^{\wedge} 2$ (question in R.S. Agarwal)
20) A hemisphere of radius 6 cm is cast into a right circular cone of height 75 cm . The radius of the base of the cone is?
a. $1.4 \mathrm{~cm} \quad$ b. 2 cm
c. 2.4 cm
d. 4.2 cm
21) How many bullets can be made out of a lead cylinder 15 cm high and base radius 6 cm , each bullet being 1.5 cm in radius? $\quad$ a. $860 \quad$ b. $900 \mathrm{c} .960 \quad \mathrm{~d} .990$
22) A bag contains $50 p, 25 p, 10 p$ coins in the ratio $5: 9: 4$, amounting to Rs.206.find the no. of coins of each type ? ans:200,90,16 coins
23) If $x / y+y / x=40 / 21$. Then find $x$ and $y$ ?
24) A goods train starts and after 2 hrs , a passenger train at $4 \mathrm{~km} / \mathrm{hr}$ starts and overtakes the goods train after 4 hrs, then the speed of goods train is? ans: 2.67
25) $A$ train $X$ starts from $M$ at 4 pm and reaches $G$ at 5 pm . While another train $Y$ starts from $G$ at 4 pm and reaches M at 5.30 pm . The two trains will cross each other at
a. 4.36 pm
b. 4.42 pm
c. 4.48 pm
d. 4.50 pm ans:a
26) $A, B, C$ can do a piece of work in $11,20,55$ days respectively, working alone. How soon can the work be done if A is assisted by B and C on alternate days.
a. 7 days
b. 8 days
c. 9 days
d. 10 days ans:b
27) what is the loss \% if a man loses Rs. 10 on selling an article for Rs. 100 ?
a. $91 / 2 \%$
b. 10 \%
c. 10 ½ \%
d. none ans:d
28) A grain dealer cheats to an extent of $10 \%$ while buying as well as selling, by using false weights. His total gain is $\quad$ a. $10 \%$ b. $20 \frac{1}{2} \% \quad$ c. $222 / 9 \% \quad$ d. $21 \%$ ans :d
29) Find the largest number of four digits exactly divisible by $12,15,18$ and 27 . ans: 9720
30) The highest Score in an innings was $3 / 11$ of the total and the next highest was $3 / 11$ of the reminder. If the scores differed by 9 , find the total score.
a) 151
b) 161
c) 121
d) 101
e) 137 ans:c
31) A boy was asked to multiply a certain number by 53 . He multiplied it by 35 and got his answer less than the correct one by 1206 . Find the number to be multiplied.
a) 37
b) 67
c) 87
d) 97 e) 107 ans:b
32) If the manufacturer gains $10 \%$, the wholesale dealer $15 \%$ and the retailer $25 \%$ then the cost of Production of a table, if the retail price is Rs. 1265
a) 632.50
b) 800
c) 814
d) 834.24 ans:b
33) LCM of 3 nos is 120 which of the following no must not be their HCF
a. 8
b. 24
c. 12
d. 24 and 30 ans :d
34) The volume and the radius of both cone and sphere are equal , then find the ratio of height of the cone to the diameter of the sphere? Ans 2:1
35) $A$ and $B$ started a business with 1500 and 2500 and got a profit 800 . Half of the profit is shared equally the remaining is shared according to their investment. Find their profits.350:450
36) An amount of Rs. 64 has to become Rs. 125 in 3 years in compound interest, find the rate of interest?
37) Length of a rectangle is increased by $50 \%$ and breadth is decreased by $25 \%$.what is the difference in the area ?0.125
38) Mr X position in a class is 13th from first and 17th from last, and 8th from the first and 13th from last in passed candidates list, then how many candidates failed in the exam ? 20 pass, 9 Fail
39) A two digit number is 4 times to its sum of digits, when 9 is added to the number, the digits will get reversed. Then what is that number? ans:12
40. A cyclist started travelling towards south. After travelling 500 m he turned right, then he again turned right and travelled 400 m . He again turned right and travelled a distance of 1 km straight. After taking rest for about 15 minutes, he turned left at an angle of $45^{\circ}$ and travelled 45 km straight, then finally he turned right again at an angle of $45^{\circ}$. In which direction was he moving finally?
a. North-east
b. East
c. West d. South-west
ans EAST

## EXTRA

7.) A monkey climbs 6 mts and falls 3 mts in alternate minutes. Then time taken to climb a tree 60metres high?
a. 35 b. 37 c. 32 d. 34 (think the answer is 37)
5. a number when multiplied by $7 / 18$ instead of $7 / 8$ and got the result 770 less than the actual result , find the original number?
9. an amount of 64 Rs has to become 125 in 3 years in compound interest, find the rate of interest?
11. the prime no., which is greater than 6 when divide by 6 will always gives the remainder ans: 1 or 5

## FLOW CHART:

1) Some flow chart is given. Five question on this flow chart.
i. Whether i will take the value 0
ii. Find value of $i$
iii. Find value of a
iv. Find value of $j$
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Answers:
    i. Yes
    ii. -4
    iii. 13
    iv. 29
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2) One more flow chart. Five questions
i. $\quad s$ value at 6 th iteration
ii. value f 3 when $\mathrm{n}=6$
iii. f3 doesn't take which value (9)
iv. When $\mathrm{s}=57$ what is the value of f 3 (89)
v. What is the value n when program terminates. (11)

Formulae involved in the flow chart:
$\mathrm{S}=\mathrm{N} 2-(\mathrm{N}-1)$
F3 $=\mathrm{F} 1+\mathrm{F} 2$
F1 = F2
F2 = F3
mug this flow chart.. same flow chart came for us..it is very difficult to remember the ques.. $\mathbf{i}$ am sorry that i cudnt able to reproduce.. for the 3rd Section i remember few que:

## Section 3:

1- problem on tower of hanoi--ans 7
2 problem on fig. find the shaded area, square of size 14 cm .. ans: 42
3. problem on symmetric fig ;; ans less than the 1172(check).
u have 3 figure -based on the figures ques asked.. easy one..
eg: Fig Triangle means Strong, Fig Square means Tall, Fig Circle means Fair.

Ques asked is find the number that represents Strong Tall and Fair persons.. easy one ..
ANs: 4
ANother question Women,Sub inspector,graduates - Ans: 3
An Flow Chart - Glven Units - 250
find final Value with formulae - (units*1.25) and few calculations like this Ans:506.25 $a, b$ are prime nos, $a=b+2$ is $a$ an odd number(yes/no?)

