## Placement paper of CTS - Nov 04

CTS

CTS Paper of 8th November
TIME $=60 \mathrm{~min}$
QUES=
40
VENUE = Kolkata
COLOR = Purple
(1) What is the co-efficient of the term independent of $x$ in the series
$\left[(1 / 2)(1 / x)^{\wedge} 1 / 3+(1 / x)^{\wedge}(-1 / 5)\right]^{\wedge} 8$. where ${ }^{\wedge}$ denotes to the power of
(2) In an examination a student must answer $65 \%$ of the questions
correctly. But it was found $t$ hat after answer 7 questions corretly out of the first 14 , the student qualified. What is the min no. of questions in the paper. (a) 22 (b) 18 (c) 20 (d) Can't say
(3) There r two jars. In the first jar there is $25 \%$ Milk and in the second jar there is $50 \%$ milk. What ratio of milk should be added to get 12 lit of milk from the two jars such that we get $62.5 \%$ Milk in the whole mixture. [Ans: 6lit : 6lit]
(4) There r 8 envelops and 8 letters. What is the probability that the all the letters will be inserted in the correct envelop.
(5) There r two bridges at a distance of 1 Km . A person starts rowing upstream from 1st bridge and when he reaches the second bridge he losses
his cap. After 15 mins he realises it and turns bach and rows downstream and catches his hat at the bottom of 1st bridge. Find : The speed of boat in still water
(6) Same problem but find the speed of the river
(7) There are 1000 doors that are of the open-close type. When a person opens the door he closes it and then opens the other. When the first person goes he opens-closes the doors ion the multiples of 1 i.e., he opens and closes all the doors. when the second goes he opens and closes the doors 2,468 respectively. Similarly when the third one goes he does this for 36912 15th doors resly. Find number of doors that are open at last. [Ans: 31]
(8) 40 people can do a work in 60 days. After every 10 days 5 persons keeps leaving the job. In how many days will the job be completed.
(9) A square field is there of dim : 40 X 60 m . A 1 m path is surrounded on the field outside it. What is the area of the path.
(10) $x=2+2^{\wedge}(1 / 3)+2^{\wedge}(2 / 3)$. Find the value of $x^{\wedge} 3-6 x^{\wedge} 2-8 x$. Something like this we have to find the answer was 8
(11) There was a puzzle on 5 traders in the name

Steel,wood,Timber....and they produce Steel, wood, timber ...and supply them to others but
not to the manufacturer of it. For eg: Steel supplies Wood's Product to the $r$ eciver of Timber.
this was a comfusing puzzle. About 4 questions
were from this part
(12) A person starts from A to B . After 1 hr his tyre gets punctured and he repairs it for 10 mins and travels the rest of the distant with $30 \mathrm{~km} / \mathrm{hr}$ and arrives 30 min late. had the puncture occured 30 Kms earlier he wud been only 15 mins late. Find the ditance betn. A \& B and his intila speed.
Beside these there were about 20 question on English like Fill in the
blanks, passage with conclusion, passage with some questions, Questions on whether cond. A is sufficient to solve the problem, whether cond. B is sufficient to solve the problem, whether cond. A \& B both r
neccessary to solve the problem. Whether the problem cannot be solved with the two conditions given. I was surprised to see s many English portions in the paper very much unlike CTS.

