## 2011 CTS Placement Papers:-

Directions for Questions 1-5: Read the passage and answer the questions that follow on the basis of the information provided in the passage.

Work expands so as to fill the time available for its completion. The general recognition of this fact is shown in the proverbial phrase,' It is the busiest man who has time to spare'. Thus, an elderly lady at leisure can spend the entire day writing a postcard to her niece. An hour will be spent in writing a postcard, another hunting for spectacles, half an hour to search for the address, an hour and a quarter in composition and twenty minutes in deciding whether or not to take an umbrella when goingto the pillar box in the street. The total effort that could occupy a busy man for three minutes, all told may in this fashion leave another person completely exhausted after a day of doubt, anxiety and toil.
1.What happens when the time to be spent on some work increases?
A) the work is done smoothly.
B) the work is done leisurely.
C) work consumes all the time.
D) The work needs additional time.

Ans: C
2. Explain the sentence : work expands so as to fill the time available for its completion'.
A) The more work there is to be done , the more time needed.
B) whatever time is available for a given amount of work, all of it will be used.
C) If you have more time you can do some work.
D) If you have some important work to do , you should always have some additional time.

Ans: B
3. Who is the person likely to take more time to do work.:
A) a busy man.
B) a man of leisure.
C) an elderly person.
D) an exhausted person

Ans: B
4. What is the total time spent by the elderly lady in writing a postcard?
A) Three minutes.
B) four hours and five minutes.
C) half day
D)the entire day.

Ans:D
5. What does the expression 'pillar box' stand for?
A) a box attached to the pillar.
B) a box in the pillar
C) box office.
D) a pillar type postbox.

Ans: D

Directions for Questions 6-10: Read the passage and answer the questions that follow on the basis of the information provided in the passage.

According to Albert Einstein the non mathematician, is seized by a mysterious shuddering when he hears of 'four-dimensional' things, he is seized by a feeling, which is very similar to the thoughts awakened by the occult. And at the same time the statement that the world in which we live is a four-dimensional space - time continuum is quite a common place statement.

This might lead to an argument regarding the use of the term "commonplace" by Einstein. Yet the difficulty lies more in the wording than the ideas. Einstein's concept of the universe as a four-dimensional space-time continuum becomes plain and clear, when what he means by "continuum" becomes clear. A continuum is something that is continuous, A ruler, for example, is a one-dimensional space continuum. Most rulers are divided into inches and frWASLions, scaled down to one-sixteenth of an inch.

Will it be possible to conceive a ruler, which is calibrated to a millionth or billionth of an inch. In theory there is no reason why the steps from point to point should not be even smaller. What distinguishes a continuum is the fWASL that the space between any two points can be sub-divided into an infinite number of smaller divisions.

A railroad track is a one-dimensional space continuum and on it the engineer of a train can describe his position at any time by citing a single co-ordinate point - i.e., a station or a milestone. A sea captain, however, has to worry about two dimensions. The surface of the sea is a two-dimensional continuum and the co-ordinate points by which sailor fixes his positions in his two dimensional continuum are latitude and longitude. An airplane pilot guides his plane through a three - dimensional continuum, hence he has to consider not only latitude and longitude, but also his height above the ground. The continuum of an airplane pilot constitutes space as we perceive it. In other words, the space of our world is a threedimensional continuum.

Just indicating its position in space is not enough while describing any physical event, which involves motion. How position changes in time also needs to be mentioned. Thus to give an accurate picture of the operation of a New York - Chicago express, one must mention not only that it goes from New - York to Albany to Syracuse to Cleveland to Toledo to Chicago, but also the times at which it touches each of those points. This can be done either by means of a timetable or a visual chart. If the miles between New York and Chicago are plotted horizontally on a piece of ruled paper and the hours and minutes are plotted vertically, then a diagonal line properly drawn across the page illustrates the progress of the train in twodimensional space - time continuum. This type of graphic representation is familiar to most newspaper readers; a stock market chart,
For example, pictures financial events in a two - dimensional dollar - time continuum. Similarly for the best picturisation of the flight of an airplane from New York to Los Angeles a four - dimensional space - time continuum is essential. The latitude, longitude and altitude will only make sense to the traffic manager of the airline if the time co - ordinate is also mentioned. Therefore time is the fourth dimension. If a flight has to be looked at, perceived
as a whole, it wouldn't work if it is broken down into a series of disconnected take - offs, climbs, glides, and landing, it needs to be looked at and perceived as a continuous four dimensional space - time continuum curve.

Following are some sample questions on this passage:
The significant feature of a continuum, according to the passage, revolves around The divisibility of the interval between any two points.
An ordinary ruler's caliber for marking
It's unending curve
It's lucid from providing comprehensibility to the non - scientists as well
It's variety of co - ordinates.
Answer: A
The purpose of this passage is to highlight the point that
Plots and sea captains have something in common
Stock market charts may be helpful to physicists
The fourth dimension is time.
Non-mathematician's are often afraid of the commonplace
There is a marked quality to distance
Answer: C
According to the passage, an airlines traffic manager depends upon all of the following EXCEPT aptitude
The time co-ordinate
Longitude
The continuous curve in co four
Answer: E
The underlying tone of this selection is
Persuasive
Deferential
Candid
Instructive
Gently condescending
Answer: D

According to the author if on wishes portray a physical event in which motion plays a role one has to
Make use of a time-table
Indicate how position changes in time
Be conversant with the scientist's theories
Describe it graphically
Be aware of altitude, latitude and longitude
Answer: B

Directions for Questions 11-12: Read each sentence to find if there is any grammatical error in it. If there is any error, it will be only one part of the sentence. The number or alphabet of that part is your answer.(Disregard punctuation errors if any)
11. I never have / visited / or intend to visit / foreign countries /
A
B
C
D
Ans:C
12. The clothes / were neatly / hanged /on the cloth line.
$\begin{array}{llll}\text { A } & \text { B } & \text { C } & \text { D }\end{array}$
Ans:C
Directions for Questions 13-15: one of the four sentences given in each question is grammatically wrong. Find the incorrect sentence.
13.
A) Our followers are but a handful.
B) Neither he nor I was there.
C) Many a glorious deeds were done.
D) Everyone of the boys loves to ride.

Ans: C
14
A) She had finished her work when I met her.
B) Do you believe in God?
C) He cut his hand with a knife.
D) He challenged me for a duel.

Ans: D

15
A) Sumit is my elder brother.
B) He is two years younger to me.
C) He is the eldest man of this village.
D) Ravi is five years older than me.

Ans: C
Directions for Questions 16-20: In each of the following questions, some sentence are given which are on the same theme. decide which sentence is the most preferable with respect to grammar; meaning and usage, suitable for formal writing in English. Find the correct sentence.

16
A) From which train did you come?
B) A series of incidents have taken place.
C) It is a five--men committee.
D) This pronunciation is peculiar to Bengalis.

Ans:D
17
A) They have placed order for books.
B) He has applied for lectureship.
C) The river has overflown its bank.
D) Give me rupees two and a half.

Ans:D

18
A) The proceeds of the charity show are for riot victims
B) He asked Ajay and I to go.
C) The weather of this place does not suit me.
D) Either Rajesh or his friends has done it.

Ans: A
19
A) It is far too hard an essay for me to attempt.
B) It is too far hard an essay to attempt for me.
C) Too far it is an essay hard for me to attempt.
D) It is too hard an essay for me to far attempt

Ans:D
20.
A) Hoping to be hearing from you, I remain yours sincerely.
B) Hoping to hear from you, I remain yours sincerely.
C) Hoping to have heard from you, I sincerely remain yours.
D) Sincerely I remain yours hoping to be hearing from you.

Ans: B
Directions for Questions 21-25: In each of the following questions, a paragraph or a sentence has been broken up into different parts. The parts have been scrambled and numbered as given below. Choose the correct order of these parts from the given alternatives.
21. 1) I 2) do 3 ) a 4) of 5) in 6 ) lot 7 ) reading 8 ) my 9 ) time 10 ) free
A. $1,2,3,6,4,7,5,10,8,9$
B. $1,2,6,3,4,7,5,8,10,9$
C. $1,2,3,6,7,4,5,8,10,9$
D. $1,2,3,6,4,7,5,8,10,9$

Ans: D
22. 1) on to 2) seat 3) evening 4) Edinburgh 5)the 6) booked 7) flight 8) a 9) time 10)to
A. $9,6,8,2,1,5,3,7,10,4$
B. $9,6,8,1,2,5,3,7,10,4$
C. $9,3,8,2,1,5,6,7,10,4$
D. $9,6,1,2,5,8,3,7,10,4$

Ans: A
23. 1) I
2) my 3) leg
4) to 5)hire
6) gardener
7) when
8) a
9) had
10) I
11) broke
A. $1,9,4,5,8,6,7,10,11,3,2$
B. $1,9,4,5,11,6,8,10,7,2,3$
C. $1,9,4,5,8,6,7,10,11,2,3$
D. $1,4,9,5,8,6,7,10,11,2,3$

Ans: C
24. 1) She
2) trust
3) Don't
4) because 5)is
6) her
7) lying
A. $1,5,2,3,4,6,7$
B. $3,2,6,4,1,5,7$
C. $3,2,6,4,1,5,7$
D. $3,2,6,1,4,5,7$

Ans: B
25. 1) rent 2)a 3) has 4) room 5)in 6) house 7 ) she 8 ) to 9 ) rent
A. $7,3,2,4,1,8,5,9,6$
B. $7,3,1,4,8,2,5,9,6$
C. $7,3,2,4,8,1,5,9,6$
D. $7,3,2,4,8,1,5,6,9$

Ans: C
Aanalytical section (25 Q's - 30 mins)
Directions for Questions 26-30:There are five friends Sachin, Kunal, Mohit, Anuj and Rohan. Sachin ia shorter than Kunal but taller than Rohan. Mohit is tallest. Anuj is a little shorter than Kunal an little taller than Sachin.
26.Who is the shortest?
(a) Rohan
(b) Sachin
(c) Anuj
(d) Kunal
(e) None of these

Ans: A
27. If they stand in the order of their heights, who will be in the middle?
(a) Kunal
(b) Rohan
(c) Sachin
(d) Anuj
(e) None of these

Ans: D
28. If they stand in the order of increasing heights, who will be the second?
(a) Anuj
(b) Sachin
(c) Rohan
(d) Kunal
(e) None of these

Ans: B
29. Who is the second tallest?
(a) Sachin
(b) Kunal
(c) Anuj
(d) Rohan
(e) None of these

Ans: B
30. Who is taller than Anuj but shorter than Mohit?
(a) Kunal
(b) Rohan
(c) Sachin (d)Date Inadequate
(e) None

Ans: A

Directions for Questions 31-35:
31. A group of friends goes for dinner and gets bill of Rs 2400 . Two of them says that they
have forgotten their purse so remaining make an extra contribution of Rs 100 to pay up the bill. Tell the no. of person in that group.

Ans - 8 person
32. Given the following functions
(1) $f(n a b c)=a c$ if $n=1$
(2) $f(n a b c)=f(n-1 a c b)+f(1 a b c)+f(n-1 b a c)$ if $n>1$

Then what is the value $f(2 a b c)=$ ?
Ans: $\mathrm{f}(2 \mathrm{ac} \mathrm{b})=\mathrm{ab}+\mathrm{ac}+\mathrm{bc}$.
33. There are 600 tennis players $4 \%$ wear wrist band on one wrist Of the remaining, $25 \%$ wear wrist bands on both hands How many players don't wear a wrist band?
Ans. 432
34. Three types of tea the a,b,c costs Rs. $95 / \mathrm{kg}, 100 / \mathrm{kg}$ and $70 / \mathrm{kg}$ respectively. How many kgs of each should be blended to produce 100 kg of mixture worth Rs. $90 / \mathrm{kg}$, given that the quatities of band c are equal

70,15,15
50,25,25
60,20,20
40,30,30
Ans. B
35. If all the 6 are replaced by 9 , then the algebraic sum of all the numbers from 1 to 100(both inclusive) varies by

Ans: 330
Directions for Questions 36-40: Each question given below has a problem and two statements numbered I and II giving certain information. You have to decide if the information given in the statements are sufficient for answering the problem. Indicate your answer as
(a) if the data in statement I alone are sufficient to answer the question;
(b) if the data in statement II alone are sufficient to answer the question;
(c) if the data in either in I or II alone are sufficient to answer the question;
(d) if the data even in both the statements together are not sufficient to answer the question;
(e) if the data in both the statements together are needed;
36. A) The boy regretted that he had spend a greater part of his vacation in the chair with a plastered leg.
B) With a plastered leg, the boy regretted that he had spent a greater part of his vacation in the chair
C) The boy regretted that a plastered leg he had spent a greater part of his vacation in the chair.
D) The boy with a plastered leg regretted that he had spent a greater part of his vacation in the chair.
Ans: C
37. A) If You will pay heed to the small details, the general plans will surely succeed.
B) If you pay heed to the small details, the general plans will surely succeed.
C) If you would heed the small details, the general plans would have succeed.
D) If you heeded to the small details, the general plans would surely succeed.

Ans: B
38. A) It is a pleasure to see an alligator basking in the sunshine on a river bank as long as 90 feet.
B) It is a pleasure to see an alligator as long as 90 feet basking in the sunshine on a river bank
C) It is a pleasure to see an alligator basking in the sunshine as long as 90 feet on a river bank
D) It is a pleasure to see an alligator basking as long as 90 feet in the sunshine on a river bank.
Ans: B
39. A) There will be a meeting in the long room at 4 o'clock of all the boys who play cricket and football.
B) There will be a meeting of all the boys who play cricket and football in the long room at 4 o'clock.
C) There will be in the long room at 4 o'clock a meeting of all the boys who play cricket and football
D) In the long room at 4 o'closk there will be a meeting of all the boys who play cricket and football.
Ans: D
40. A) We had in this village, some twenty years ago, an idiot boy, whom I well remember, who from a child showed strong propensity for bees
B) Some twenty years ago, we had an idiot boy in this village, who from a child showed strong propensity for bees, whom I well remember.
C) We had an idiot boy, whom I well remember, who from a child showed strong propensity for bees, in this village some twenty years ago.
D) In this village, we had an idiot boy some twenty years ago, who from a child showed strong propensity for bees, whom I well remember.
Ans: A

Directions for Questions 41-45: Convert the given binary numbers.

$$
\text { 41. }(11111011) 2=(\quad) 8
$$

Ans: (373)8
42. $(11011110110010101101) 2=() 16$

Ans: (DECAD) 16
43. $(11010101) 2=(\quad) 10$

Ans: (213) 10
44. $(11100111) 2=(\quad)$

Ans: (347) 8
45. $(1100010101010010001) 2=() 8$

Ans: (1425221)8
Questions 46-50: A cube painted red on two adjecent faces and black on the faces opposite to the red faces and green on the remaining faces is cut into sixty-four smaller cubes of equal size.
46. How many cubes are there which have no face painted ?
A) 0
B) 4
C) 8
D) 6

Ans: C
47. How many cubes have only one face painted?
A) 8
B) 16
C) 24
D) 32

Ans: C
48. How many cubes have less than three faces painted?
A) 80
B) 24
C) 28
D)48

Ans: D
49. How many cubes are there with three faces painted ?
A) 4
B) 8
C) 16
D) 24

Ans: B
50. How many cubes have one face green and one of the adjacent faces black o red?
A) 8
B) 16
C) 24
D) 28

Ans:C

Reasoning section
Directions for Questions 51-55: In each questions below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Give answer (A) if only conclusion I follows; (B) if only conclusion II follows; (C) if either I or II follows;
(D) if neither I nor II follows and (E) if both I and II follow.
51. Statements: Most clocks are fans

Some fans are walls
Conclusions: I. Some walls are fans
II. Some clocks are walls

Ans: D
52. Statements: All birds are dogs

Some dogs are cats
Conclusions: I. Some cats are not dogs
II. All dogs are not birds

Ans: D
53. Statements: Some fools are intelligent Some intelligent are great
Conclusions: I. Some fools are great
II. All great are intelligent.

Ans: D
54. Statements: All Men are married Some men are educated
Conclusions: I. Some married are educated II. Some educated are married.

Ans: E
Directions for Questions 5-6: In each questions below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.
55. Statements: All bags are chalks.

All chalks are bottles.
Conclusions: I. Some bottles are bags.
II. All bags are bottles
III. All bottles are bags
IV. Some chalks are not bags
A) Only I , II and IV follow
B) Only I , III and IV follow.
C) Only II, III and IV follow.
D) All Follow
E) none of these
Ans: A
56. Statements: Some trees are buses
All buses are hats
Conclusions: I Some trees are hats
II. Some hats are trees
III. All hats are buses
IV. Some buses are hats
A) None follow s
B) Only I, II and IV follow.
C) Only II , III and IV follow.
D) All Follow
E) none of these

Ans: B
Directions(57-65): In each of the following questions one word is different from the rest. Find out the word which does not belong to the group
57. A ) Yokel B) Upshot C) Lout D) Bumpkin

Ans: B
58. A) Sofa B) Bed C) Diwan D) Chair E) Table

Ans: B
59. A) Keraunophobia B) Tonitrophobia C) Phonophobia D) Astraphobia Ans: C
60. A) HB B) ZU C) NI D) TO E) PK

Ans: (A)
61. A) Printer B) Author C) Publisher D) Correspondent E) Reader

Ans: (E)
62. A) EQL B) BHF C) KTI D) SXD E) JWM

Ans: (D)
63. A) Curd B) Butter C) Oil D) cream

Ans: C
64. A) Poland
B) Greece
C) Spain
D)Korea

Ans: D
65. A) Copper $\quad$ B) Tin C) Brass $\quad$ D) ZInc

Ans: C
66. Mr. A, Miss B, Mr. C and Miss D are sitting around a table and discussing their trades.

1. Mr. A sits opposite to cook 2. Miss b sits right to the barber.
2. The washer man is on the left of the tailor 4. Miss D sits opposite Mr. C hat are the trades of A and B ?
A. Tailor and Barber
B. Tailor and cook
C. Barber and cook
D. washer man and cook

Ans: B
67. In a pile of 10 books, there are 3 of History, 3 of Hindi, 2 of mathematics and 2 of English. Taking from above, there is an English book between a history and mathematics book, a history book between a mathematics and an English book, a Hindi book between an English and a mathematics book, a mathematics book between two Hindi books and two Hindi books between a Mathematic and a History book. Book of which subject is at the sixth position from top?
A. English
B. Hindi
B. Mathematics
C. History

Ans: B
68. On a man's tombstone, it is said that one sixth of his life was spent in childhood and one twelfth as a teenager. One seventh of his life passed between the time he became an adult and the time he married; five years later, his son was born. Alas, the son died four years before he did. He lived to be twice as old as his son did.
How old did the man live to be?
Ans: 84 years
69. What two numbers have a product of 48 and, when the larger number is divided by the smaller, a quotient of 3 ?

Ans: 4 and 12
70. A drove of sheep and chickens have a total of 99 heads and feet. There are twice as many chickens as sheep. How many of each are there?

Ans: nine sheep and eighteen chickens
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