CTS PLACEMENT PAPER 2013 – 14 BY

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VERBAL SECTION (25 questions - 25 min)

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

For a period of more than two centuries paleontologists have been intrigued by the fossilized remains of pterosaurs, the first flying vertebrates. The issues, which puzzle them, are how these heavy creatures, having a wingspan of about 8-12 meters managed the various problems associated with powered flight and whether these creatures were reptiles or birds.

Perhaps the least controversial assertion about the pterosaurs is that they were reptiles. Their skulls, pelvises, and hind feet are reptilian. The anatomy of their wings suggests that they did not evolve into the class of birds. In pterosaurs a greatly elongated fourth finger of each forelimb supported a winglike membrane. The other fingers were short and reptilian, with sharp claws. In birds the second finger is the principal strut of the wing, which consists primarily of feathers. If the pterosaurs walked on all fours, the three short fingers may have been employed for grasping. When a pterosaurs walked or remained stationary, the

fourth finger, and with it the wing, could only urn upward in an extended inverted V- shape along each side of the animal's body.

In resemblance they were extremely similar to both birds and bats, with regard to their overall body structure and proportion. This is hardly surprising as the design of any flying vertebrate is subject to aerodynamic constraints. Both the pterosaurs and the birds have hollow bones, a feature that represents a savings in weight. There is a difference, which is that the bones of the birds are more massively reinforced by internal struts.

Although scales typically cover reptiles, the pterosaurs probably had hairy coats. T.H. Huxley reasoned that flying vertebrates must have been warm-blooded because flying implies a high rate of metabolism, which in turn implies a high internal temperature. Huxley speculated that a coat of hair would insulate against loss of body heat and might streamline the body to reduce drag in flight. The recent discovery of a pterosaur specimen covered in long, dense, and relatively thick hair like fossil material was the first clear evidence that his reasoning was correct.

Some paleontologists are of the opinion that the pterosaurs jumped from s dropped from trees or perhaps rose into the light winds from the crests of waves in order to become airborne. Each theory has its associated difficulties. The first makes a wrong assumption that the pterosaurs hind feet resembled a bat's and could serve as hooks by which the animal could hang in preparation for flight. The second hypothesis seems unlikely because large pterosaurs could not have landed in trees without damaging their wings. The third calls for high aces to channel updrafts. The pterosaurs would have been unable to control their flight once airborne as the wind from which such waves arose would have been too strong.

1. As seen in the above passage scientists generally agree that:
A. the pterosaurs could fly over large distances because of their large wingspan.

B. a close evolutionary relationship
can be seen between the pterosaurs and bats, when the
structure of their skeletons is studied.
C. the study of the fossilized remains of the pterosaurs reveals
how they solved the problem associated with powered flight
D. the pterosaurs were reptiles
E. Pterosaurs walked on all fours.
Ans: D

2. As inferred from the passage, the skeleton of a pterosaur is
distinguishable from that of a bird by the
A. length of its wingspan
B. hollow spaces in its bones
C. anatomic origin of its wing strut
D. evidence of the hook like projections on its hind feet
E. location of the shoulder joint joining the wing to its body.
Ans: C

3. From the viewpoint of T.H.Huxley, as given in the passage,
which of the following statements is he most likely to agree with?
A. An animal can master complex behaviors irrespective of the
size of it's brain.
B. Environmental capabilities and physical capabilities often
influence the appearance of an animal.
C. Usually animals in a particular family group do not change
their appearance dramatically over a period of time
D. The origin of flight in vertebrates was an accidental
development rather than the outcome of specialization or
adaption
E. The pterosaurs should be classified as birds, not reptiles.
Ans: B

4. The organization of the last paragraph of the passage can best
be described as:
A. New data is introduced in order to support a traditional point
of view
B. Three explanations are put forth and each of them is disputed

by means of specific information
C. An outline of three hypotheses are given and evidence
supporting each of them is given
D. Description of three recent discoveries is presented, and their
implications for future study are projected
E. The material in the earlier paragraphs is summarized and
certain conclusions are from it.
Ans: B

5. According to the passage, some scientists believe that
pterosaurs
A. Lived near large bodies of water
B. Had sharp teeth for tearing food
C. Were attacked and eaten by larger reptiles
D. Had longer tails than many birds
E. Consumed twice their weight daily to maintain their body
temperature.
Ans: A

Directions for Questions 5-10: Read the passage and answer
the questions that follow on the basis of the information provided
in the passage.

After his father's death, writer Laurence Yep returned to San
Francisco to look for the apartment house where his family had
lived, which also housed their grocery store. It had been
replaced by a two-story parking garage for a nearby college.
There were trees growing where the store door had been. I had
to look at the street signs on the corner to make sure I was in
the right spot. Behind the trees was a door of solid metal
painted a battleship gray Stretching to either side were concrete
walls with metal grates bolted over the openings in the sides.
The upper story of the garage was open to the air but through
the grates I could look into the lower level. The gray, oil-stained
concrete spread onward endlessly, having replaced the red
cement floor of our store. Lines marked parking places where my
parents had laid wooden planks to ease the ache and chill on

their feet. Where the old-fashioned glass store counter had been was a row of cars. I looked past the steel I-beams that formed the columns and ceiling of the garage, peering through the dimness in an attempt to locate where my father's garden had been; but there was only an endless stretch of cars within the painted stalls. We called it the garden though that was stretching the definition of the word because it was only a small, narrow cement courtyard on the north side of our apartment house. There was only a brief time during the day when the sun could reach the tiny courtyard; but fuchsia bushes, which loved the shade, grew as tall as trees from the dirt plot there. Next to it my father had fashioned shelves from old hundred-pound rice cans and planks; and on these makeshift shelves he had his miniature flower patches growing in old soda pop crates from which he had removed the wooden dividers. He would go out periodically to a wholesale nursery by the beach and load the car with boxes full of little flowers and seedlings which he would lovingly transplant in his shadowy garden. If you compared our crude little garden to your own backyards, you would probably laugh; and yet the cats in the neighborhood loved my father's garden almost as much as he did--to his great dismay The cats loved to roll among the flowers, crushing what were just about the only green growing things in the area. Other times, they ate them-perhaps as a source of greens. Whatever the case, my father could have done without their destructive displays of appreciation. I don't know where my father came by his love of growing things. He had come to San Francisco as a boy and, except for a brief time spent picking fruit, had lived most of his life among cement, brick, and asphalt. I hadn't thought of my father's garden in years; and yet it was the surest symbol of my father. Somehow he could persuade flowers to grow within the old, yellow soda pop crates though the sun seldom touched them; and he could coax green shoots out of what seemed like lifeless sticks. His was the gift of renewal. However, though I stared and stared, I could not quite figure out where it had been. Everything looked the same; more concrete and more cars. Store, home and garden had all been torn down and replaced by something as cold, massive and impersonal as a prison. Even if I could have gone through the gate, there was nothing for me inside there. If I wanted to return to that lost garden, I would have to go back into my own memories. Award-winning author Laurence Yep did return to his father's garden in his memories. In 1991 he published The Lost Garden an autobiography in which he tells of growing up in San Francisco and of coming to use his writing to celebrate his family and his ethnic heritage.

6. The author is searching for something as he looks through the window of a parking garage. What is he searching for?
A. A particular car
B. The red cement floor of an old store
C. Reminders of the past
D. Evidence of his father's financial success
Ans: C

7. What kind of work did the author's father do?
A. He was a professional gardener
B. He worked in a parking garage.
C. He owned a restaurant.
D. He owned a store.
Ans:D

8. What idea does the story suggest about the author's parents?
A. They both worked hard to support their family
B. They had encouraged their son to become a writer
C. They had not wanted to see a parking garage replace their home.
D. They had been farmers most of their lives.
Ans:C

9. What do you know about the father's garden?
A. It grew in spite of being neglected.
B. The cats would eat all the plants before they grew
C. It flourished in an unlikely spot.
D. It didn't grow well because of lack of sun.

Ans:D

10. Why are details about the neighborhood cats included in this story?
A. To show how much the garden meant to the family.
B. To show how important this garden was to the author's father.
C. To show how had the author worked at helping his father.
D. To show that the author's father loved animals as well as plants.

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 shall / ring him / tomorrow / in the afternoon.
    A   B   C   D
Ans: B

12. I enjoyed / during my / stay in / England.
     A   B   C   D
Ans: A

Directions for Questions 13-15: one of the four sentences given in each question is grammatically wrong. Find the incorrect sentence.

13. A) the odds are against him.
B) Let me thread the needle .
C) A nurse is taking care of him.
D) I don't know if snow is falling.
Ans. D

14. A) Let me put my sign here.
B) These cattle are mine.
c) He examined the book closely.
D) He has no knowledge of and no interest in music.

Ans: A

15. A) He has no desire for fame.
B) I intend going to Calcutta.
C) He is too miserly to part with his money.
D) He has invited me for dinner.
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. Our school had won the match if only we have concentrated .
B. Our school would have won the match if only we would have concentrated.
C. Our school would win the match if only we had concentrated.
D. Our school had won the match if only we would have concentrated.
E. Our school would have won the match if only we had concentrated.
Ans: E

17. A. He will not pay unless he is not compelled
B. He will not pay unless he will be compelled
C. He will not pay unless he is compelled
D. he will not pay till he i s compelled
Ans: C

18. A. Since he lacked needed money, he never turned down anyone who needed help.
B. He wasn't rich by any means, although he never turned down anyone who needed help.
C. Being not rich by any means, but he never turned away anyone who needed help.

D. He wasn't rich by any means, but he never turned away anyone who needed help.
E. Since he wasn't rich by any means, he never turned away anyone who needed help.
Ans: D

19. A) I was asked to stop writing.
B) She denied to go with me.
C) My hairs stood on end.
D) I am reading this novel for four days.
Ans. D

20. A. The teacher asked the student with a frown on his face, to leave the room.
B. The teacher asked with a frawn on his face the student to leave the room.
C. With a frawn on his face, the teacher asked the student to leave the room.
D. The teacher asked the student to leave the room with a frawn on his face.
Ans: C

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) is decidedly harmful
2) disregarding other equally important aspects,
3) to the total neglect of others
4) in the life of a man or a woman
5) is not wisdom but
6) cultivating only one quality
7) giving all attention and energy to one aspect of national life only,
8) folly

9) similarly in the life of a nation.
A) 4,6,2,5,8,9,7,1,3   B) 4,6,3,1,9,7,2,5,8
C) 6,2,4,5,1,9,7,3,8   D) 6,4,2,1,9,7,3,5,8
Ans: B

22. 1) Zealand 2) islands 3) Australia   4) of   5) new   6) consist 7) both   8) and 9) two
A) 2,4,3,6,5,7,1,8,9   B) 5,1, 8 3,7,6,9,2,4
C) 5,1,8,3,7,6,4,9,2   D) 5,1,8,2,3,7,6,4,9
Ans: C

23. 1) Pentium 4   2) any   3) conflicts. 4) handle 5) It seems 6)can 7)that 8)without 9) it
A) 5, 7, 1, 4, 6, 9, 8, 3, 2   B) 5, 7, 2, 4, 6, 8, 9, 1, 3
C) 5, 7, 1, 4, 6, 9, 8, 2, 3   D) 5, 7, 1, 6, 4, 9, 8, 2, 3
Ans: D

24. 1) language   2) of   3) two   4) the   5) official   6)countries   7) is   8) English 9) the
A) 8, 7, 4, 5, 1, 2, 9, 3, 6   B) 8, 7, 1, 5, 4, 2, 9, 3, 6
C) 8, 7, 4, 1, 5, 2 9, 3, 6   D) 8, 7, 4, 5, 1, 9, 2, 3, 6
Ans: A

25. 1) two   2) there   3) some   4) however   5) countries   6) between   7) are   8) differences   9) the
A) 4, 2, 8, 3, 7, 6, 9, 1, 5   B) 4, 2, 5, 3, 8, 6, 9, 1, 7,
C) 4, 2, 7, 3, 8, 6, 9, 1, 5   D) 4, 2, 7, 3, 8, 6, 9, 1, 5,
Ans: C

ANALYTICAL section (25 Q's - 30 mins)

Questions 1-5:
1. Out of forty students, there are 14 who are taking Physics and 29 who are taking Calculus. What is the probability that a randomly chosen student from this group is taking only the Calculus class?
Ans: 0.6 = 60%.

2. In town of 500 people, 285 read Hindu and 212 read Indian express and 127read Times of India 20 read Hindu and times of India and 29 read hindu and Indian express and 35 read times of India and Indian express. 50 read no news paper. Then how many read only one paper?
Ans: 45

3. In a group of persons traveling in a bus, 6 persons can speak Tamil, 15 can speak Hindi and 6 can speak Gujarati. In that group, none can speak any other language. If 2 persons in the group can speak two languages and one person can speak all the three languages, then how many persons are there in the group ?
A) 21   B) 23   C) 22   D)24
Ans: B

4. Out of a total of 120 musicians in a club , 5% can play all the three instruments- Guitar, violin and Flute. It so happens that the number of musicians who can play any two and only two of the above instruments is 30. The number of musicians who can play the guitar alone is 40. What is the total number of those who can play violin alone or flute alone ?
A) 30   B) 38   C) 44   D) 45
Ans: C

5. In a town 65% people watched the news on television, 40% read a newspaper and 25% read a newspaper and watched the news on television also. What percent of the people neither watched the news on television nor read a news paper ?
A) 5   B) 10   C) 15   D) 20
Ans: D

Questions 6-10:

6. A secret can be told only 2 persons in 5 minutes .the same

person tells to 2 more persons and so on. How long will take to tell it to 768 persons ?
a)47.5 min   b)50 min   c) 500 min   d)49 min
Ans: 47.5 min

7. When I was married 10 years ago my wife is the 6th member of the family. Today my father died and a baby born to me.The average age of my family during my marriage is same as today. What is the age of Father when he died?
Ans: 70.

8. A son and father goes for boating in river upstream . After rowing for 1 mile son notices the hat of his father falling in the river. After 5 min. he tells his father that his hat has fallen. So they turn round and are able to pick the hat at the point from where they began boating after 5min. Tell the speed of river?
Ans: 6 miles/hr

9. There are three departments having students 64,58,24 .In an exam they have to be seated in rooms such that each room has equal number of students and each room has students of one type only (No mixing of departments. Find the minimum number rooms required ?
Ans: 73

10. Argentina had football team of 22 player of which captain is from Brazilian team and goalki from European team. For remaining player they have picked 6 from Argentinean and 14 from European. Now for a team of 11 they must have goalki and captain so out of 9 now they plan to select 3 from Argentinean and 6 from European. Find out number of methods available for it.
Ans: 160600 (check out for right no. 6C3 * 14C6)

Directions for Questions 11-15: 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;

11. How many visitors saw the exhibition yesterday?
I. Each entry pass holder can take up to three persons with him / her.
II. In all, 243 passes were sold yesterday.
Ans: D

12. How much was the total sale of the company?
I. The company sold 8000 units of product A each costing Rs. 25.
II. The company has no other product line
Ans: E

13. In what proportion would Raj, Karan and Altaf distribute profit among them
I. Raj gets two-fifth of the profit.
II. Karan and Althaf have made 75% of the total investment.
Ans: D

14. What time did the train leave today.
I. The train normally leaves on time
II. The scheduled departure is at 14.30.
Ans: D

15. On which day in January, Subhas left for Germany?
I. Subhas has so far spent 10 years in Germany.
II. Subhas' friend Anil left for Germany on 15th February and

joined Subhas 20 days after Subhas' arrival.
Ans: D.

Directions for Questions 16-20: Convert the given binary numbers.

16. (1110 0111)2 = (   )16
Ans: (E7)16

17. (01011010)2=(   )8
Ans: (132)8

18. (11110000)2= ( )10
Ans:(240)10

19. (11000101010000111)2=(   )16
Ans: (18A87)16

20. (01001110)2 = ( )8
Ans: (116)8

Directions(21-25): a cube is coloured orange on one face, pink on the opposite face, brown on one face and silver on a face adjacent to the brown face. The other two faces are left uncoloured. It is then cut into 125 smaller cubes of equal size. now, answer the following questions based on the above statements:

21. How many cubes have at least one face coloured pink ?
A) 1   B)9   C) 16   D) 25
Ans: D

22. How many cubes have all the faces uncoloured ?
A) 24   B)36   C) 48   D) 64
Ans: C

23. How many cubes have atleast two faces coloured ?

A) 19   B)20   C) 21   D) 23
Ans: C

24. How many cubes are coloured orange on one face and have the remaining faces incoloured ?
A) 8   B) 12   C) 14   D) 16
Ans: D

25. How many cubes one coloured silver on one face, orange or pink on another face and have four uncoloured faces ?
A) 8   B) 10   C) 12   D) 16
Ans: A

REASONING section (20 Q's - 20 mins)

Directions for Questions 1-4: 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.

1. Statements: Some shirts are biscuits; No biscuit is book
Conclusions : I Some shirts are books
        II. Some books are biscuits
Ans: D.

2. Statements: No women can vote; Some women are politicians
Conclusions : I Male politicians can vote
        II. Some politicians can vote
Ans: D

3. Statements: No man is a donkey; Rahul is a man
Conclusions : I Rahul is not a donkey.
        II.All men are not Rahul
Ans: A

4. Statements: All poles are guns; Some boats are not ploes
Conclusions : I   All guns are boats
        II. Some boats are not guns
Ans: D

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.

5. Statements: All rats are cows; No cow is white.
Conclusions : I   No white is rat.
        II. No rat is white
        III. Some whites are rats
        IV All cows are rats

A) None follows   B) Only I and IV follow.
C) Only II and IV follow. D) Only IV follow
E) None of these
Ans: E

6. Statements: All apples are brinjals
            All brinjals are ladyfingures
        All ladyfingures are oranges

Conclusions: I. Some oranges are brinjals
        II.All brinjals are apples
        III. some apples are oranges

IV All ladyfingures are apples
A) None follows   B) All follow
C) Only I and III follow   D) Either I or III follows
E) None of these
Ans: A.

Directions(7-15): In each of the following questions one word is different from the rest. Find out the word which does not belong to the group

7. (A) Ginger   (B) Tomato   (C) Carrot   (D) Beet   (E) Potato
Ans: B

8. (A) BFD   (B) NRP   (C) HLG   (D) QUS   (E) UYW
Ans: C

9. (A) ML   (B) TS   (C) FG   (D) PO   (E) XW
Ans: C

10. (A) Cheese (B) Butter   (C) Ghee   (D) Milk (E) Curd
Ans: D

11. (A) GTSH (B) BYXC   (C) ETUF   (D) LONM   (E) KPIR
Ans: C

12. (A) PQ   (B) CD   (C) MN   (D) DF   (E) RS
Ans: D

13. (A) FLOK   (B) CROWD   (C) HERD   (D) SWARM   (E) TEAM
Ans: E

14. (A) 64   (B) 54   (C) 42   (D) 31   (E) 20
Ans: D

15. A) mania   B) pneumonia   C) Influenza D) Cholera
Ans: A

16. Five children are sitting in a row. S is sitting next to P but not T. K is sitting next to R who is sitting on the extreme left and T is not sitting next to K. Who are sitting adjacent to S?
A) K and P   B) R and P   C) Only P   D) P and T   E) Insufficient Information.
Ans: D

17. In the Olympic Games, the flags of six nations were flown on the masts in the following way. The flag of America was to the left of Indian tricolour and to the right of the flag of France. The flag of Australia was on the right of the Indian flag but was to the left of the flag of Japan, which was to the left of the flag of China. Find the two flags which are in the centre.
A) India and Australia   B) America and India   C) Japan and Australia   D) America and Australia
Ans: A

18. One boy can eat 100 chocolates in half a minute, and another can eat half as many in twice the length of time. How many chocolates can both boys eat in 15 seconds?
Ans: 62.5 chocolates.

19. Potatoes are made up of 99% water and 1% "potato matter." Jack bought 100 pounds of potatoes and left them outside in the sun for a while. When he returned, he discovered that the potatoes had dehydrated and were now only made up of 98% water. How much did the potatoes now weigh?
Ans: 50 pounds.

20. You own a pet store. If you put in one canary per cage, you have one canary too many. If you put in two canaries per cage, you have one cage too many. How many canaries and cages do you have?
Ans: four canaries and three cages.

APTITUDE TEST

Questions = 70 ; time limit = 70 minutes (Correct answer
carry one mark and wrong answer carry 0.25 marks), Offline
(paper & pen) test.