# NASSCOM Model Paper Questions

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 he pterosaurs were reptiles-Answer

e Pterosaurs walked on all fours.

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-Answer

d. evidence of the hooklike projections on its hind feet

e location of the shoulder joint joining the wing to its body.

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.-Answer

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

The pterosaurs should be classified as birds, not reptiles.

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-Answer

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.

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.

Quantitative Aptitude and reasoning questions with answer

1 Father is aged three times more than his son Ronit. After 8 years,he would be two and a hlf times of ronits age. After further 8 years how many times would he be of Ronils age?

a.2 times-Answer

B. 2 and 1/2 times

C.21/3 times

D. 3 times

2 The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?

A. 5 years

B. 4 years-Answer

C. 8 years

D. 10 years

3 A gun fired at a distance of 3.2km from bablar.He hears the sound 10 sec later.What is the speed of the sound?

A. 420m/sec

B. 450m/sec

C. 320m/sec

D. 332m/sec

4 If a train moves at the rate of 2km/hr.what is the speed in metres per second?

A. 50

B. 40

C. 30

D. 20

5 If the speed of the man is 92.4km/hr how many metres would it cover in 20minutes?

A. 30800m

B. 3080m

C. 308m

D. 4500m

6 A bus starts running with the initial speed of 40km/hr with its speed increasing every hour by 5kmph.How many hours will it take to cover a distance of 385km?

A. 10hrs

B. 12hrs

C. 8 hrs

D. 7hrs

7 A train passes a man in 15 sec and passes a bridge 100m long in 25 sec.find the length of the train?

A.150m

B. 100m

C. 120m

D. 200m

8 A cat climbs a hill at a speed of 1m/sec and return to ground at twice the speed.His average speed for the round trip is

A. 2m/sec

B. 10m/sec

C. 2.5m/sec

D. 1.5m/sec

9 A train moves with a speed of 80km/hr.What is the speed of the train in m/sec?

A. 38 1/9

B. 22 5/9

C. 22 2/9

D. 45 6/7

10 If a man walk ta 3 kmph ,he miss the bus by 2 minutes.If, however,He walk at 4 kmph ,then reach the station 2 minutes before the arrival of the bus.How far do he walk to reach the station?

A. 3/4km

B. 7/8km

C. 4/9km

D. 4/5km

11 A motor cycle takes 40 seconds to travel 400m.Its speed is

A. 48km/hr

B. 36km/hr

C. 72km/hr

D. 18km/hr

12 A person covers a distance in 40 minutes if it runs at a speed of 30km/hr on an average.The speed at which the car must run to reduce the time of journey to 55 minutes,will be

A. 23.89 km/hr

B. 22.81 km/hr

C. 21.81 km/hr

D. 23.12 km/hr

13 . A train covers 12km in 4 hrs.In travelling 19km the time taken is

A. 6hrs 20min

B. 5 hrs 40 min

C. 6 hrs 30 min

D. 4 hrs 12 min

14 A train takes 5 hrs to cover a distance of 300km.How much should the speed (in km/hr) be maintained to cover the same distance in 4/5th of the previous time?

A. 45

B. 65

C. 75

D. None of these

15 .A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was:

A. 10 years

B. 12 years

C. 11 years

D. 14 years-Answer

16 A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, the how old is B?

A.10-Answer

B. 11

C. 14

D. 13

17 .Present ages of Sameer and Anand are in the ratio of 5 : 4 respectively. Three years hence, the ratio of their ages will become 11 : 9 respectively. What is Anand's present age in years?

A. 12

B. 24-Answer

C. 36

D. Can't be determined

18 A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of his son is:

A. 20 years

B. 21 years

C. 22 years-Answer

D. 23 years

19 Six years ago, the ratio of the ages of Kunal and Sagar was 6 : 5. Four years hence, the ratio of their ages will be 11 : 10. What is Sagar's age at present?

A. 12 years

B. 16 years-Answer

C. 18 years

D, 20 years

20 The sum of the present ages of a father and his son is 60 years. Six years ago, father's age was five times the age of the son. After 6 years, son's age will be:

A. 20 years-Answer

B. 22 years

C. 24 Years

D. Cant be determined

21 At present, the ratio between the ages of Arun and Deepak is 4 : 3. After 6 years, Arun's age will be 26 years. What is the age of Deepak at present ?

A. 12 years

.B. 15 years-Answer

C. 20 years

D. 13 years

21 Sachin is younger than Rahul by 7 years. If their ages are in the respective ratio of 7 : 9, how old is Sachin?
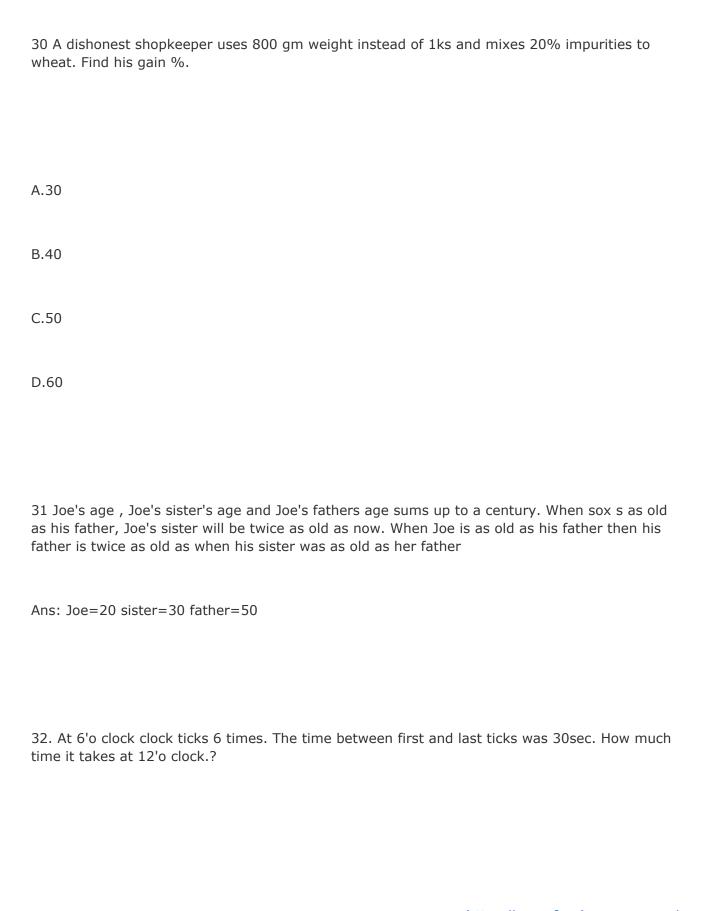
A. 22 years

B. 24 years

C.22.5 years

D. 24.5 years-Answer

22 Three solid cubes of edges 3 cm, 4 cm and 5 cm are melted to form a new cube. The edge of the new cube is

A.6 cm

B.6.5 cm

C.7 cm

D.7.5 cm

23 At what time between 6 and 7 are the hands of the clock coincide?

A.6:32 8/11

B.6:13

C.6:35 8/11

D.6:36

24 If the annual increase of the population of a town is 75 per thousand of previous year and the present population is 3418801, what was the population four years ago?

A.2560000

B.2810000

C.3000000

D.2650000

25 If 830 is divided into three parts such that 4 times the first part is equal to 5 times the second and 7 times the third, the first part is

A.200

B.230

C.320

D.350

26 Two taps can fill a tank in 18 and 24 min respectively. When both the taps are opened find when the first tap be turned off so that the tank may be filled in 12 min.

A.6 min

B.7 min

C.8 min

D.9 min

27 How many number s are there between 200 and 300 in which 9 occurs only once?

18

19

20

21

28 Swathi took Rs. 20000 at 5% SI for 2 years and invested it at 4% CI for same period. Find her gain/loss.

A. Rs. 368 loss

B.Rs. 200 gain

C.Rs.423 gain

D.Rs. 364 gain

29 A plant reproduces at the rate of 25% every 12 min. In approximately what time will it triple itself?

A.90 min

B.75 min

C.60 min

D.40 min

30 A dishonest shopkeeper uses 800 gm weight instead of 1ks and mixes 20% impurities to wheat. Find his gain %.

A.30

B.40

C.50

D.60

31 Joe's age , Joe's sister's age and Joe's fathers age sums up to a century. When sox s as old as his father, Joe's sister will be twice as old as now. When Joe is as old as his father then his father is twice as old as when his sister was as old as her father

Ans: Joe=20 sister=30 father=50

32. At 6'o clock clock ticks 6 times. The time between first and last ticks was 30sec. How much time it takes at 12'o clock.?

Ans. 66 sec. 2 marks.

33. Three friends divided some bullets equally. After all of them shot 4 bullets the total no.of remaining bullets is equal to that of one has after division. Find the original number divided.

Ans: 18

34. A ship went on a voyage after 180 miles a plane started with 10 times speed that of the ship. Find the distance when they meet from starting point.

Ans: 200

35 A man sold two cows for Rs. 210 at a total profit of 5 %. He sold one cow at a loss of 10% and another at a profit of 10%. What is the price of each cow?

Ans: Rs. 150 and Rs. 50