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Sl.no

Questions

1.

The average age a family consists of six members is 20 years. If one person is removed, the average becomes 15 years. Find the age of the person removed?

- (a) 45 years
- (b) 40 years
- (c) 42 years
- (d) 50 years

2.

In the following number series, a wrong number is given. Find out the wrong number.

150, 450, 750, 1060, 1350, 1650, 1950

- (a) 1060
- (b) 1950
- (c) 450
- (d) 1350

3.

In a certain code 'FORGIVE' is written as 'DPPHGWC'. How would

'REQUEST' be written in that code?

- (a) PFOVCUR
- (b) TFOVCRU
- (c) PFOVCTR
- (d) TOFCVUR

4.

5 kg of metal A and 20 kg of metal B are mixed to form an alloy. The percentage of metal A in the alloy is

- (a) 10%
- (b) 20%
- (c) 30%
- (d) 40%

5.

In a class, there are 80 students and their average marks in the annual examination are 40. If the average marks of passed students are 60 and average marks of failed students are 35, then find out the number of students who failed.





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- (a) 63
- (b) 60
- (c) 72
- (d) 64
- In the series

 AABABCABCDABCDE... which
 letter occupies the 100th position?
 - (a) H
 - (b) I
 - (c) K
 - (d) J
- 7.
 A father is twice as old as his son.20 yr ago, the age of the father was12 times the age of the son. Thepresent age of the son is
 - (a) 20 yr
 - (b) 21 yr
 - (c) 22 yr
 - (d) 23 yr

- 8. What is the next number in the series: 2, 6, 12, 20, 30, ___?
 - a) 42
 - b) 44
 - c) 46
 - d) 48
- A man is looking at a photograph of someone. His friend asks, "Who is it you are looking at?" The man replies, "Brothers and sisters, I have none. But the father of that person in the photograph is my father's son." Who is the person in the photograph?
 - a) The man himself
 - b) The man's son
 - c) The man's father
 - d) The man's friend
- A can X contains 399 litres of petrol and a can Y contains 532 litres of





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diesel. They are to be bottled in bottles of equal size so that whole of petrol and diesel would be separately bottled. The bottle capacity in terms of litres is an integer. How many different bottle sizes are possible?

- (a) 3
- (b) 4
- (c) 5
- (d) 6

11.

Two persons P and Q enter into a business. P puts ₹ 14,000 more than Q, but P has invested for 8 months and Q has invested for 10 months. If P's share is ₹ 400 more than Q's share out of the total profit of ₹ 2,000, what is the capital contributed by P?

- (a) ₹ 30,000
- (b) ₹ 26,000
- (c) ₹ 24,000

(d) ₹ 20,000

12.

If in a certain code, 'POT' is written as ATOP and 'TRAP' is written as APART, then how is 'ARENA' written in that code?

- (a) AARENA
- (b) AANREA
- (c) AANEAR
- (d) AANERA

13.

On January 1st, 2023, a person saved Rs 1. On January 2nd, 2023, he saved Rs. 2 more than that on the previous day. On January 3rd, 2023, he saved Rs. 2 more than that on the previous day and so on. At the end of which date was his total savings a perfect square as well a perfect cube?

- (a) 7th January, 2023
- (b) 8th January, 2023







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- (c) 9th January, 2023
- (d) Not possible
- 14.

The monthly average salary paid to all the employees of a company was Rs. 5000. The monthly average salary paid to male and female employees was Rs. 5200 and Rs. 4200 respectively. Then the percentage of males employed in the company is

- (a) 75%
- (b) 80%
- (c) 85%
- (d) 90%
- 15.

A piece of tin is in the form of a rectangle having length 12 cm and width 8 cm. This is used to construct a closed cube. The side of the cube is:

(a) 2 cm

- (b) 3 cm
- (c) 4 cm
- (d) 7 cm
- 16.

How many integers are there between 1 and 100 which have 4 as a digit but are not divisible by 4?

- (a) 5
- (b) 11
- (c) 12
- (d) 13
- 17.

Consider the following arrangement that has some missing letters:

abab_b_bcb_dcdcded_d

The missing letters which complete the arrangement are

- (a) a, b, c, d
- (b) a, b, d, e
- (c) a, c, c, e





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(d) b, c, d, e

How many times the hour hand and the minute hand coincide in a clock between 10:00 a.m.

and 2.00 p.m. (same day)?

- (a) 3 times
- (b) 4 times
- (c) 5 times
- (d) 6 times

A thief running at 8 km/hr is chased by a policeman whose speed is 10 km/hr. If the thief is 100 m ahead of the policeman, then the time required for the policeman to

catch the thief will be

- a) 2 min
- b) 3 min
- c) 4 min
- d) 6 min

20.

How many 3-digit natural numbers (without repetition of digits) are there such that each digit

is odd and the number is divisible by 5?

- (a) 8
- (b) 12
- (c) 16
- (d) 24

21.

Read the passage below and answer the question:

Unless the forces and tendencies which are responsible for destroying the country's environment are checked in the near future and afforestation of denuded areas is taken up on a massive scale, the harshness of the climatic conditions and soil erosion by wind and water will increase to such an extent that agriculture, which is the mainstay of our people, will gradually become





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impossible. The desert countries of the world and our own desert areas in Rajasthan are a grim reminder of the consequences of large-scale deforestation. Pockets of desert-like landscape are now appearing in other parts of the country including the Sutlej-Ganga Plains and Deccan Plateau. Where only a few decades back there used to be lush green forests with perennial streams and springs, there is only brown earth, bare of vegetation, without any water in the streams and springs except in the rainy season.

According to the passage given above, deforestation and denudation will ultimately lead to

which of the following?

- 1. Depletion of soil resource
- 2. Shortage of land for the common man
- 3. Lack of water for cultivation

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- "SPECIAL" is written as "65" in a certain code language. What will "CONNECT" be coded as?
 - 1) 70
 - 2) 64
 - 3) 78
 - 4) 74
- **23.**

Today is Ram's birthday which falls on Wednesday, Gopal's birthday falls after 50 days after

Ram's birthday. On which day Gopal's birthday falls?

- A. Monday
- B. Thursday





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- C. Sunday
- D. Wednesday
- **24.**Read the passage below and answer the question:

People will invest in education whenever they are granted the economic freedom to fully enjoy its benefits. Again, this is for the obvious reason that the return on education increases as the level of economic freedom rises. When people, thanks to lower tax rates, are allowed to retain most of the higher income that they gain from each incremental level of education, it makes eminent sense to invest in education. On the other hand, when the government decides to tax the higher income of educated individuals at even higher rates, it makes very little sense to invest in educating oneself further. The same incentives apply to parents who decide on whether to invest in their children's education.

Which references to the above passage, the following assumptions have been made:

- 1. Lower tax rates in a country invariably translate into greater investments in higher education.
- 2. Investment in the education of children ensures their economic freedom.
- 3. Economic freedom has a positive impact on building up human capital.

Which of the above assumptions is/are valid?

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

25.

In a class, there are three groups A, B and C. If one student from group A and two students from group B are shifted to group C, then what





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happens to the average weight of the students of the class?

- (a) It increases.
- (b) In decreases.
- (c) It remains the same.
- (d) No conclusion can be drawn due to insufficient data.

26.

A person X wants to distribute some pens among six children A B C D E and F. Suppose A

gets twice the number of pens received by three times that of four times that of D, five times

that of E and six times that of F. What is the minimum number of pens X should buy so that

the number of pens each one gets is an even number?

- (a) 147
- (b) 150
- (c) 294

(d) 300

27.

A digit n > 3 is divisible by 3 but not divisible by 6. Which one of the following is divisible by 4?

- (a) 2n
- (b) 3n
- (c) 2n + 4
- (d) 3n + 1

28. Read the passage below and answer

Bank credit to the industrial sector has started shrinking. Its decline has been a serious concern as credit growth is essential to revive investment. The problem's origins lie in the incomplete reforms of the last 25 years. An institutional change that should have followed the 1991 reforms should have been setting up of a resolution corporation for banks. In a market economy with booms and busts, banks should be allowed to be set





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up and to fail. Today, we cannot shut down banks because there is not proper system to shut them down. Weak loss-making banks continue to need more capital.

Which one of the following is the most logical and rational inference that can be made from the above passage?

- (a) Indian banking system is not able to help the country in its economic growth.
- (b) Economic reforms that started in 1991 have not helped in improving the economy to expected levels.
- (c) India lacks the institutional mechanisms to deal with the failure of banks.
- (d) Encouraging the foreign investments in our industrial sector is a good alternative to this sector's dependence on banks for credit.

29. If Y = 50, SEA = 50, then 'YACHT'

will be equal to?

A.114

B.70

C. 97

D. 130

30.

For any choices of values of X, Y and Z, the 6-digit number of the form XYZXYZ is divisible by:

- (a) 7 and 11 only
- (b) 11 and 13 only
- (c) 7 and 13 only
- (d) 7, 11 and 13

31.

If the order of the letters in the English alphabet is reversed and each letter represents the letter whose position it occupies, then which one of the following represents 'LUCKNOW'?

(a) OGXPMLD





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- (b) OGXQMLE
- (c) OFXPMLE
- (d) OFXPMLD

32.

a + b means a - b; a - b means a x b; a x b means a ÷ b; a ÷ b means a + b, then what is the

value of $10 + 30 - 100 \times 50 \div 25$? (Operations are to be replaced simultaneously)

- (a) 15
- (b) 0
- (c) -15
- (d) -25

33.

Read the passage and answer the below:

Today, if we consider cities such as New York, London and Paris as some of the most iconic cities in the world, it is because plans carrying a heavy systems approach were imposed on their precincts. The backbone of the systems theory is the process of translating social, spatial and cultural desirables into mathematical models using computing, statistics, optimization and an algorithmic way of formulating and solving problems. The early universities of the West which began to train professionals in planning, spawned some of the most ingenious planners, who were experts in these domains. This was because these very subjects were absorbed into the planning curriculum that had its roots in the social sciences, geography and architecture. Planning in India, and its education differ from the West.

Which one of the following statements best reflects the most logical and rational inference that can be made from the above passage?

(a) Curriculum for urban planning courses should have diverse and interdisciplinary approach.





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- (b) In India, city administration is under bureaucracy which lacks formal training in urban planning and management.
- (c) In India, the management of urban areas is a local affair with a chronic problem of insufficient funds.
- (d) With high density of population and widespread poverty in our urban areas, planned development in them is very difficult.
- In a certain code language "EASY" is written as "5117". In the same code language, how will

"BEAM" be written as?

- 1) 4512
- 2) 4567
- 3) 2513
- 4) 2514
- **35.** On dividing a larger number by a

smaller number, the quotient obtained is 6 and the remainder is 30. What is the smaller number if the difference between the two numbers is 1380?

- a) 280
- b) 290
- c) 270
- d) 250

36.

A cubical vessel of side 1 m is filled completely with water. How many millilitres of water is contained in it (neglect thickness of the vessel)?

- (a) 1000
- (b) 10000
- (c) 100000
- (d) 1000000

37.

The main threat to maintaining progress in human development comes from the increasingly evident





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unsustainability of production and consumption patterns. Current production models rely heavily on fossil fuels. We now know that this is unsustainable because the resources are finite. The close link between economic growth and greenhouse gas emissions needs to be served for human development to become truly sustainable. Some developed countries have begun to alleviate the worst effects by expanding recycling and investing in public transport and infrastructure. But most developing countries are hampered by the high costs and low availability of clean energy sources. Developed countries need to support developing countries' transition to sustainable human development.

- Q.1. Unsustainability in production pattern is due to which of the following?
- 1. Heavy dependence on fossil fuels
- 2. Limited availability of resources

3. Expansion of recycling

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

38.

If x is a positive integer such that 2x + 12 is perfectly divisible by x, then the number of possible values of x is

- a) 2
- b) 5
- c) 6
- d) 12

39.

An outgoing batch of students wants to construct an auditorium worth Rs 42,00,000 for their college. If the teachers offer to pay





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50% more than the student's contribution and an external benefactor give three times the teachers contribution, how much should the teachers donate?

- a) 9,00,000 Rs
- b) 7,35,000 Rs
- c) 8,40,000 Rs
- d) 6,50,000 Rs

40.

The cost of a diamond varies directly as the square of its weight. While showing to the customer, this diamond broke into four pieces with weights in the ratio 1:2:3:4. When the pieces were sold, the merchant got Rs 70,000 less. Find the original price of the diamond.

- a) Rs 1.4 lakh
- b) Rs 2 lakh

- c) Rs 1 lakh
- d) Rs 2.1 lakh

41.

Elephants are landscape architects, creating clearings in the forest, preventing overgrowth of certain plant species and allowing space for the regeneration of others, which in turn provide sustenance to others, which in turn provide sustenance to other herbivorous animals. Elephants eat plants, fruits and seeds, propagating the seeds when they defecate in other places as they travel. Elephant dung provides nourishment to plants and animals and acts as a breeding ground for insects. In times of drought, they access water by digging holes which benefits other wildlife.

Which one of the following statements best reflects the most logical and rational inference that can be drawn from the passage?

(a) The home range of elephants





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needs to be a vast area of rich biodiversity.

- (b) Elephants are the keystone species and they benefit the biodiversity.
- (c) Rich biodiversity cannot be maintained in the forests without the presence of elephants.
- (d) Elephants are capable of regenerating forests with species as per their requirement.
- 42.

 If 'ZERO' is written as 'CHUR', then how is 'PLAYER' written?
 - (a) SOCACT
 - (b) SODBGT
 - (c) SODBHT
 - (d) SODBHU

One non-zero-digit, one vowel and one consonant from English alphabet (in capital) are to be used in forming passwords, such that

each password has to start with a vowel and end with a consonant. How many such passwords can be generated?

- (a) 105
- (b) 525
- (c) 945
- (d) 1050

44.

A, B and C are three places such that there are three different roads from A to B, four different roads from B to C and three different roads from A to C. In how many different ways can one travel from A to C using these roads?

- (a) 10
- (b) 13
- (c) 15
- (d) 36

45. In India, agriculture still engages





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about half of its workforce, and about 85 per cent of its farms are small and marginal. Compared to China and Vietnam, which have experienced fast structural and rural transformation, India's story is of slow transformation. As a result, poverty reduction in India was at much slower pace during 1988-2014, compared to China and Vietnam. India's poverty reduction was slow during 1988-2005, but during 2005-2012, it accelerated dramatically-almost three times faster than during the earlier period. What did India do during this period? Research reveals that the relative price scenario changed significantly (by more than 50%) in favour of agriculture in the wake of rising global prices. This boosted private investments in agriculture by more than 50%. As a result, agri-GDP growth touched 4.1% during 2007-2012 as against 2.4% during 2002-2007. The net surplus of agri-trade touched \$25 billion in 2013-2014; real farm wages rose by 7% per annum. All this led to

unprecedented fall in poverty.

With reference to the above passage, the following assumptions have been made:

- 1. Structural and rural transformation is impossible when farms are mainly small and marginal.
- 2. A good price incentive can trigger investments in agriculture.
- 3. India needs to build value chains for high-value agri-products like livestock and horticulture.
- 4. Higher global prices of agricultural commodities are essential for India's poverty reduction.

Which of the above assumptions are valid?

- (a) 1 and 3
- (b) 2 and 4
- (c) 2 and 3
- (d) 3 and 4





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46.

How many zeroes are there at the end of the following product?

 $1 \times 5 \times 10 \times 15 \times 20 \times 25 \times 30 \times 35$ $\times 40 \times 45 \times 50 \times 55 \times 60$

- (a) 10
- (b) 12
- (c) 14
- (d) 15

47.

When the price for a product was decreased by 10%, the number sold increased by 30%. What was the effect on the total revenue?

- 1) 23%
- 2) 17%
- 3) 36%
- 4) 12%

48.

3 men, 4 women and 6 children can complete a work in 7 days. A

woman does double the work a man does and a child does half the work a man does. How many women alone can complete this work in 7 days?

- A) 6
- B) 9
- C) 5
- D) 7

49.

For two or three generations past, ever-increasing number of individuals have been living as workers merely, not as human beings. An excessive amount of labor is rule today in every circle of society, with the result that man's spiritual element cannot thrive. He finds it very difficult to spend his little leisure in serious activities. He does not want to think; or he cannot even if he wants to. He seeks not Self-improvement, but entertainment which would enable him to be mentally idle and to forget his usual activities.





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Therefore, the so-called culture of our age is dependent more on cinema than on theatre, more on newspapers, magazines and crime stories than on serious literature.

The passage is based on the idea that

- (a) man should not work hard
- (b) the great evil of our age is overstrained
- (c) man cannot think well
- (d) man cannot care for his spiritual welfare

50.

The flower was not invented to please us. It flaunted its petals and spread its perfume to attract an insect. The insect carries the pollen from flower to flower so that pollen is not carried away by wind and thus not wasted. What we call a flower's beauty is merely a byproduct and a human invention. The perfume is not there to please us, it pleases us because it is there

and we have been conditioned to it.72. Based on the above passage, the following assumptions have been made:

- 1. The author of the passage believes that flowers are creations of Nature's luxury.
- 2. The author of the passage does not believe in the usefulness of flowers except as things of beauty.

Which of the assumptions given above is/are valid?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

How many natural numbers are there which given a remainder of 31 when 1186 is divided by these

natural numbers?

(a) 6

51.







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- (b) 7
- (c) 8
- (d) 9

52.

A digit n > 3 is divisible by 3 but not divisible by 6. Which one of the following is divisible by 4?

- (a) 2n
- (b) 3n
- (c) 2n + 4
- (d) 3n + 1

53.

A frog tries to come out of a dried well 4.5 m deep with slippery walls. Every time the frog jumps 30 cm, slides down 15 cm. What is the number of jumps required for the frog to come out of the well?

- (a) 28
- (b) 29
- (c) 30

(d) 31

54.

125, 80, 45, 20, ...?

- A. 5
- B. 8
- C.10
- D. 12

55.

One term in the number series is wrong. Find out the wrong term. 2, 6, 24, 96, 285, 568, 567

- (a) 6
- (b) 24
- (c) 285
- (d) 567

56.

In a certain code, THEN is coded as VFGL. How the WORD may be coded?

- (a) UQPF
- (b) YMTB
- (c) YMVB
- (d) VQFP





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57.

A dealer allows his customer a discount of 25% and still gains 25%. If cost price of a radio is Rs. 1440, its marked price is:

- (a) Rs. 2500
- (b) Rs. 244
- (c) Rs. 2400
- (d) Rs. 2020

58.

What is the remainder when $51 \times 27 \times 35 \times 62 \times 75$ is divided by 100?

- (a) 50
- (b) 25
- (c) 5
- (d) 1

59.

Consider the following statements:

- 1. A is older than B.
- 2. C and D are of the same age.
- 3. E is the youngest.

4. F is younger than D.

5. F is older than A.

How many statements given above are required to determine the oldest person/persons?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

60.

ood consumption patterns have changed substantially in India over the past few decades. This has resulted in the disappearance of many nutritious foods such as millets. While food grain production has increased over five times since independence, it has not sufficiently addressed the issue of malnutrition. For long, the agriculture sector focused on increasing food production particularly staples, which led to lower production and consumption





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of indigenous traditional corps/grains, fruits and other vegetables, impacting food and nutrition security in the process. Further, intensive, monoculture agriculture practices can perpetuate the food and nutrition security problem by degrading the quality of land, water and food derived through them.

Based on the above passage, the following assumptions have been made:

- 1. To implement the Sustainable Development Goals and to achieve zero-hunger goal, monoculture agriculture practices are inevitable even if they do not address malnutrition.
- 2. Dependence on a few crops has negative consequences for human health and the ecosystem.
- 3. Government policies regarding food planning need to incorporate nutritional security.
- 4. For the present monoculture

agriculture practices, farmers receive subsidies in various ways and government offers remunerative prices for grains and therefore they do not tend to consider crop diversity.

Which of the above assumptions are valid?

- (a) 1, 2 and 4 only
- (b) 2 and 3 only
- (c) 3 and 4 only
- (d) 1, 2, 3 and 4
- 61.

 If 1*2*3=6, 2*4*5=4 and 3*5*7=6, then what is 4*6*7?
 - (a) 15
 - (b) 10
 - (c) 8
 - (d) 6
- The letters from A to Z are
 numbered from 1 to 26 respectively.

 If GHI = 1578 and DEF = 912, then
 what is ABC equal to ?







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(a) 492

(b) 468

(c) 262

(d) 246

63.

In some code, letters P, Q, R, S, T represent numbers 4, 5, 10, 12, 15. It is not known which letter represents which number. If Q - S = 2S and T = R + S + 3, then what is the value of P + R - T?

- (a) 1
- (b) 2
- (c) 3
- (d) Cannot be determined due to insufficient data

64.

A shopkeeper marked up the price of an item by 60% and sold it for Rs.560 after giving a successive discount of 20% and 30% on the marked price of the item. Then

which of the following is correct?

- (a) He incurred a loss of Rs.65
- (b) He incurred a loss of Rs.85
- (c) He received a profit of Rs.65
- (d) He received a profit of Rs.85

65.

The total ages of X, Y and Z is 93 years. Ten years ago, their ages were in the ratio 2:3:4. What is the present age of Z?

- (a) 38
- (b) 28
- (c) 34
- (d) 24

66.

A vessel has 60 L of solution of acid and water having 80% acid. How much water is to

be added to make a solution in which acid forms 60%?

- (a) 48 L
- (b) 20 L
- (c) 36 L
- (d) None of these





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67.

4 times 4th term of an A.P is equal to 9 times 9th term of the A.P. Then what is 13 times 13th term of the same A.P?

- (a) 0
- (b) 8 times 8th term of the A.P
- (c) 10 times 10th term of the A.P
- (d) 4 times 4th term + 9 times 9th term

68.

Gopika started typing from 1. She typed till 25 and then gave balance work to Bhavana. If Bhavana typed a total of 208 digits, find that last number typed by Bhavana.

- (a) 117
- (b) 118
- (c) 119
- (d) 120

69.

Consider the Question and two

Statements given below:

Question: What is the age of Manisha?

Statement-1: Manisha is 24 years younger than her mother.

Statement-2: 5 years later, the ages of Manisha and her mother will be in the ratio 3: 5.

Which one of the following is correct in respect of the Question and the Statement?

- (a) Statements-1 alone is sufficient to answer the Question
- (b) Statement-2 alone is sufficient to answer the question
- (c) Both Statement-1 and Statement-2 are sufficient to answer the Question
- (d) Both Statement-1 and Statement-2 are not sufficient to answer the Question





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- **70.**What is the measure of the angle formed by the hands of the clock at
 - (a) 30°

2'o clock?

- (b) 45°
- (c) 60°
- (d) 90°
- Which one of the following will have minimum change in its value if 5 is added to both numerator and the denominator of the fractions 2/3, 3/4, 4/5 and 5/6?
 - (a) 2/3
 - (b) 3/4
 - (c) 4/5
 - (d) 5/6
- Today, if we consider cities such as

 New York, London and Paris as

 some of the most iconic cities in the

 world, it is because plans carrying a

 heavy systems approach were
 imposed on their precincts. The

backbone of the systems theory is the process of translating social, spatial and cultural desirables into mathematical models using computing, statistics, optimization and an algorithmic way of formulating and solving problems. The early universities of the West which began to train professionals in planning, spawned some of the most ingenious planners, who were experts in these domains. This was because these very subjects were absorbed into the planning curriculum that had its roots in the social sciences, geography and architecture. Planning in India, and its education differ from the West.

Which one of the following statements best reflects the most logical and rational inference that can be made from the above passage?

- (a) Curriculum for urban planning courses should have diverse and interdisciplinary approach.
- (b) In India, city administration is





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under bureaucracy which lacks formal training in urban planning and management.

- (c) In India, the management of urban areas is a local affair with a chronic problem of insufficient funds.
- (d) With high density of population and widespread poverty in our urban areas, planned development in them is very difficult.
- Paulson spends 75% of his income.

 His income is increased by 20% and he increased his expenditure by 10%. Find the percentage increase in his savings.
 - (a) 21%
 - (b) 50%
 - (c) 64%
 - (d) 12%

74.

In a group of 15 people; 7 can read
French, 8 can read English while 3
of them can read neither of these
two languages. The number of

people who can read exactly one language is

- (a) 10
- (b) 9
- (c) 5
- (d) 4

75.

A and B together can do a piece of work in 50 days. If A is 40% less efficient than B, in how many days can A working alone complete 60% of the work?

- 1. 70
- 2. 110
- 3.80
- 4. 105

76.

The recurring decimal representation 1.272727 ... is equivalent to

- (a) 13/11
- (b) 14/11
- (c) 127/99
- (d) 137/99





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77.

India is at once among the fastest growing global economies and home to the largest number of malnourished children in world. There are regions where malnutrition is not the exception but the norm. And across the country, malnutrition is the cause of death for roughly half the 1.3 million children who die before their fifth birthday each year. Even those children who survive suffer permanently from the damage that has already been done to their bodies and minds from not getting enough of the right foods and nutrients. Around 44 million children under 5 are stunted. That makes it harder for them to learn in school and subsequently earn a living as adults. Their lifetime earnings potential is almost a quarter less than of their healthy peers.

With refence to the above passage, which of the following is/are the most rational and practical implication/implications?

- India's Public Distribution
 System should be monitored by the
 Union Government.
- 2. Girls should be encouraged to delay marriage and first pregnancy.
- 3. Mothers should be encouraged to breastfeed their children immediately after birth.
- 4. The supply of safe drinking water and proper sanitation facilities to all should be ensured.
- 5. Authorities should ensure the vaccination should ensure the vaccination as prescribed.

Select the correct answer using the code given below.

- (a) 1, 2, 3 and 4
- (b) 2, 3, 4 and 5
- (c) 1 only
- (d) 3 and 5 only





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78.

The monthly income of a person was Rs 13500 and his monthly expenditure was Rs 9000. Next year's income increased by 14% and his expenditure increased by 7%. The percent increase in his savings was:

- (a) 7%
- (b) 21%
- (c) 28%
- (d) 35%

79.

In India, authorities always look to store the maximum amount of water in reservoirs during the monsoon season, which is then used for irrigation and generation of electricity during the summer months. It is an internationally accepted practice that the water level of a reservoir should be kept below a certain level before the onset of monsoon season. This is so that when monsoon rains come, there is space to store the excess

rainwater and also so that water can be released in a regulated manner. But the authorities store the maximum amount of water in reservoirs even before the close of the monsoon, only to ensure greater electricity generation and irrigation.

With reference to the above passage, the following assumptions have been made:

- 1. High risks involved in holding maximum water in reservoirs are due to our over-dependence on hydropower projects.
- 2. Storage capacity of dams should not be fully used before or during monsoon season.
- 3. Role of dams in flood control is underestimated in India.

Which of the above assumptions is/are valid?

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only





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(d) 1, 2 and 3

80.

A shop owner offers the following discount options on an article to a customer:

- 1. Successive discounts of 10% and 20%, and then pay a service tax of 10%.
- 2. Successive discounts of 20% and 10%, and then pay a service tax of 10%.
- 3. Pay a service tax of 10% first, then successive discounts of 20% and 10%.

Which one of the following is correct?

- (a) 1 only is the best option for the customer.
- (b) 2 only is the best option for the customer.
- (c) 3 only is the best option for the customer.
- (d) All the options are equally good

for the customer.

81.

A number is mistakenly divided by 4 instead of multiplying by 4. What is the percentage change in the result due to this mistake?

- (a) 25%
- (b) 50%
- (c) 72.75%
- (d) 93.75%

82.

Choose the group which is different from the others:

- (a) 17, 37, 47, 97
- (b) 31, 41, 53, 67
- (c) 71, 73, 79, 83
- (d) 83, 89, 91, 97

83.

Good corporate governance structures encourage companies to provide accountability and control.





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A fundamental reason why corporate governance has moved onto the economic and political agenda worldwide has been the rapid growth in international capital markets. Effective corporate governance enhance access to external financing by firms, leading to greater investment, higher growth and employment. Investors look to place their funds where the standards of disclosure, of timely and accurate financial reporting, and of equal treatment to all stakeholders are met.

Which of the following statements best reflects the logical inference from the passage given above?

- (a) It is an important agenda of the countries around the world to ensure access to good external financing.
- (b) Good corporate governance improves the credibility of the firms.
- (c) International capital markets ensure that the firms maintain good

corporate governance.

- (d) Good corporate governance paves the way for robust supply chains.
- A lady said, "If you reverse my age digits, you'll get my husband's age.

 He is older, and the difference between their ages is one-eleventh of their sum." What is the man's age?
 - (a) 63 years
 - (b) 45 years
 - (c) 54 years
 - (d) 36 years
- 85.

A is thrice as efficient compared to B. When A and B work together they complete a job in 12 days. How many days will it take for A to complete the job alone?

- (a) 14
- (b) 16
- (c) 18
- (d) 20





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86.

A car travels from a place X to place Y at an average speed of V km/hr, from Y to X at an average speed of 2v km/hr, again from X to Y at an average speed of 3v km/hr and again from Y to X at an average speed of 4v km/hr. Then the average speed of the car for the entire journey

- (a) is less than v km/hr
- (b) lies between v and 2v km/hr
- (c) lies between 2v and 3v km/hr
- (d) lies between 3v and 4v km/hr

87.

If presents bring less thrill now that we are grown up, perhaps it is because we have too much already, or perhaps it is because we have lost the fullness of the joy of giving and with it the fullness of the joy of receiving. Children's fears are poignant, their miseries are acute, but they do not look too forward nor too far backward. Their joys are clear and complete, because they

have not yet learnt always to add 'but' to every proposition. Perhaps we are too cautious, too anxious, too sceptical. Perhaps some of our cares would shrink if we thought less about them and entered with more single-minded enjoyment into the happiness that come our way.

With reference to the passage, which one of the following statements is correct?

- (a) It is not possible for adults to feel thrilled by presents.
- (b) There can be more than one reason why adults feel less thrilled by presents.
- (c) The author does not know why adults feel less thrilled by presents.
- (d) Adults have less capacity to feel the joy of loving or being loved.

88.

3 men, 4 women and 6 children can complete a work in 7 days. A woman does double the work a man does and a child does half the work





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a man does. How many women alone can complete this work in 7 days?

- A) 6
- B) 9
- C) 5
- D) 7

On dividing a larger number by a smaller number, the quotient obtained is 6 and the remainder is 30. What is the smaller number if the difference between the two numbers is 1380?

- a) 280
- b) 290
- c) 270
- d) 250

Dhanush bought two cars for Rs.6,00,000. He sold one of the car at a gain of 4% and the other at a

loss of 2%. On the whole he neither gained nor lost. Then, cost price of one of the car will be:

- 1. 5,00,000
- 2. 4,00,000
- 3. 3,00,000
- 4. 2,50,000

91.

A father's age is one more than 5 times of his son's age. After 3 yr, the father's age would be 2 less than four times the son's age. Find the present age of the father.

- (а) 30 уг
- (b) 40 yr
- (c) 31 yr
- (d) 29 yr

92.

In a class of 60, where boys are twice that of girls, Alaka is ranked 17th from the top. If there are 9 boys ahead of Alaka, then how many girls are after her in the rank?





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- (a) 26
- (b) 12
- (c) 10
- (d) 33

93.

A day after tomorrow will be X-mas day. What will be the day on the new year, if today is Monday?

- (a) Monday
- (b) Thursday
- (c) Sunday
- (d) Wednesday

94.

In a group of persons travelling 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 only and one person can speak all the three languages, then how many persons are there in the

group?

- (a) 21
- (b) 22
- (c) 23
- (d) 24

95.

A person has only 1 and 2 coins with her. If the total number of coins that she has is 50 and the amount of money with her is 75, then the number of 1 and 2 coins are, respectively

- (a) 15 and 35
- (b) 35 and 15
- (c) 30 and 20
- (d) 25 and 25

96.

What is the number of numbers of the form 0.XY, where X and Y are distinct non-zero digits?

(a) 72





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- (b) 81
- (c) 90
- (d) 100

97.

"The social order is a sacred right which is the basis of all other rights. Nevertheless, this right does not come from nature, and must therefore be founded on conventions."

With reference to the above passage which of the following statements is/are correct?

- 1. Conventions are the sources of rights of man.
- 2. Rights of man can be exercised only when there is a social order.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

(d) Neither 1 nor 2

98.

A person x can complete 20% of work in 8 days and another person Y can complete 25% of the same work in 6 days. If they work together, in how many days will 40% of the work by completed?

- (a) 6
- (b) 8
- (c) 10
- (d) 12

99.

The emissions humans put into the atmosphere now will affect the climate in the middle of the century and onwards. Technological change, meanwhile, could make a future transition away from fossil fuels cheap or it might not, leaving the world with a terrible choice between sharply reducing emissions at huge cost or suffering through the effects of unabated warming. Businesses that do not hedge against the threat of





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uncertain outcomes fail. The world cannot afford such recklessness on climate change.

Which one of the following statements best reflects the crucial message conveyed by the author of the passage?

- (a) Businesses that cause emissions may need to close down or pay for pollution in future.
- (b) The only solution is technological development related to the issues of climate change.
- (c) Waiting to deal with carbon emissions until technology improves is not a wise strategy.
- (d) Since future technological change is uncertain, new industries should be based on renewable energy sources.

100.

A number is of two digits. The position of digits is interchanged and new number is added to the original number. The resultant

number is always divisible by

- (a) 8
- (b) 9
- (c) 10
- (d) 11

101.

What is the sum of the digits of the least number which when divided by 54 leaves 35 as remainder, when divided by 80 leaves 61 as remainder and when divided by 119 leaves 100 as remainder?

- (a) 21
- (b) 19
- (c) 23
- (d) 28

102.

X and Y are natural numbers other than 1, and Y is greater than X.
Which of the following represents





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the largest number?

- (a) XY
- (b) X/Y
- (c) Y/X
- (d) (X + Y) / X * Y

103.

The monthly incomes of X and Y are in the ratio of 4:3 and their monthly expenses are in the ratio of 3: 2. However, each saves 6000 per month. What is their total monthly income?

- (a) 28000
- (b) 42000
- (c) ₹56000
- (d) ₹ 84000

104.

There are 100 students in a particular class. 60% students play cricket, 30% students play football and 10% students play both the games.

What is the number of students who play neither cricket nor football?

- (a) 25
- (b) 20
- (c) 18
- (d) 15

105.

Spanish ships in the late 16th century first brought the potato tuber from South America to Europe whereby in the early 19th century, it had become a reliable backup to cereal crops, particularly in the cold, rain-soaked soils of Ireland. The Irish were soon almost wholly dependent on the potato as their staple food. And they were planting primarily one prodigious variety, the 'Lumper' potato, whose genetic frailty would be cruelly exposed by the fungus 'Phytophthora infestans'. In 1845, spores of the deadly fungus began spreading across the country, destroying nearly all the Lumpers





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in its path. The resulting famine killed or displaced millions.

Which one of the following statements best reflects the critical message of the passage?

- (a) For introducing any foreign plant into a country, the soil and climate conditions of that country should be suitable.
- (b) As a staple food of a country, tuber crops like potato cannot replace cereal crops.
- (c) Some of the fungal infections of plants cannot be prevented or stopped from spreading across large areas.
- (d) Relying on a homogeneous food source is not desirable.

Sl.no.	Ans	EXPLANATIONS
1.	A	Formula:
		Sum of observations = Average × Number of observations.
		Calculation:
		According to the question given,





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		The average age of a family consists of 6 members is 20 years.
		Now according to the formula used,
		The total age of all family members:
		⇒ 20 × 6 = 120
		Again, it is given that one person is removed then the average becomes 15 years.
		The sum of the age of 5 members:
		\Rightarrow 15 × 5 = 75 years
		The age of the person removed
		⇒ 120 - 75
		⇒ 45 years.
		∴ The average age of the person removed is 45 years.
2.	A	By adding 300 to each term, we get the next term.
		1060 is wrong term.
		It should be 1050.
3.	С	The letters move –2, +1,
		alternately R-2=P,
		E+1=F,
		Q-2=O,
		U+1=V and so on.





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		So, code of REQUEST is PFOVCTR
4.	В	Weight of metal A = 5 kg. Total weight of the alloy = (5 + 20) kg = 25 kg. Therefore, Required percentage = (5/25×100) % = 20%.
5.	D	Let number of failed students be x. Then, number of passed students = $80 - x$ According to the question, $80 * 40 = 35x + 60(80 - x)$ $16 * 40 = 7x + 12(80 - x)$ $5x = 320$ $x = 64$
6.	В	In this series, it contains 1, 2, 3, 4, alphabets from beginning. In this sequence up to 13, it will be 91 letters. After that 14 letters of English alphabet will begin in which 9th letter which will make 100th (91+9th) from beginning will be 1.
7.	C	Let the present age of son be x yr. Then, age of father = 2 x yr Now, age of son 20yr ago = (x - 20) yr and age of father 20yr ago = (2x - 20) yr





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		Now, \Rightarrow (2x - 20) = 12(x - 20)
		2x - 20 = 12x - 240
		10x =220
		x=22 Hence, the present age of son = 22 yr.
		x 22 fichee, the present age of soil 22 yr.
8.	A	
		2 = 1×2
		6 = 2×3
		12 = 3×4
		20 = 4×5
		30 = 5×6
		The pattern seems to be $n\times(n+1)$ So, the next term should be 6×7
		6×7=42
		Thus, the next number in the series is 42 .
9.	В	Solution: If the man has no siblings, "my father's son" refers to
		himself. Therefore, "the father of that person" must be the man himself. Hence, the person in the photograph is the man's son .
10.	В	Quantity of petrol contained in X = 399 litre
		Quantity of diesel contained in Y = 532 litres
		By taking the factors of 399 and 532 we get:
		399 = 1×3×7×19





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		$532 = 1 \times 2 \times 2 \times 7 \times 19$
		So, the possible bottle sizes are 1 litre, 7 litres, 19 litres and 133 litres.
		Therefore, the number of possible bottle sizes is 4.
11.	A	Let Q invested Rs. X for 10 months and P invested Rs. (X + 14000) for 8 months.
		Now, in the profit of Rs.2000, P's share is Rs. 1200 and Q's share is Rs. 800.
		We know that, the profit is divided in the ratio of contribution.
		So, {8 × (X + 14000)} / (10X) = 1200/800
		Or 8X + 112000 = 15X
		Or 7X = 112000
		Or X = Rs. 16000
		Hence, money invested by Q = Rs. 16000
		So, money invested or contributed by P = Rs. 16000 + Rs. 14000 = Rs. 30000
12.	D	
		In a certain code, 'POT' is written as 'ATOP' and 'TRAP' is written as 'APART',
		Logic: Here the word is being reversed and prefix 'A' is being added to the front.
		Reverse order of POT = TOP
		Thus, code of POT will be 'ATOP'.





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		Reverse order of TRAP = PART
		Thus, code of TRAP will be 'APART'.
		Similarly, Reverse order of ARENA = ANERA
		Thus, code of ARENA will be 'AANERA'.
13.	В	The total savings done by the person by 8th January = 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 = 64
		Now, 4*4*4 = 8*8= 64
		So, 64 is a perfect square, as well as a perfect cube. So, it satisfies the given conditions.
1.4		
14.	В	Let the total number of male employees be M & that of female be F.
		Total salary (males) = Rs 5200 x M
		Total salary (females) = Rs 4200 x F
		So, we have 5200M + 4200F = 5000 (M+F)
		Solving, we get 200M = 800F
		Hence, M = 4F.
		Percentage of males employed = 4F/5F *100 = 80%.
15.	С	Solution: Surface area of constructed cube = Area of rectangle
		Hence, 6a*a = 12*8
		So,





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		a =4 cm.
16.	С	The integers between 1 and 100 which have 4 as a digit are:
		4, 14, 24, 34, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 54, 64, 74, 84 and 94
		So, there are a total 19 such integers.
		Out of these, the integers which are divisible by 4 are:
		4, 24, 40, 44, 48, 64 and 84
		So, the number of integers not divisible by 4 = 19 – 7 = 12 integers
		Hence, option (c) is the correct answer.
17.	С	
17.		The given sequence follows following sequence
		a b a b <u>a</u>
		b <u>e</u> b c b
		<u>c</u> d c d c
		d e d e d
		So, the missing letters are: a, c, c, e
18.	В	Answer:(b)
		Solution:
		Use relative speed concept.
		Relative speed of policeman w.r.t the thief is 2 Km/hr (10-8).





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		His Speed in m/min will be (2 X1000)/60 = 100/3 m/min
		He has to cover 100 m.
		So, time needed is 3 mins
19.	В	Use relative speed concept.
		Relative speed of policeman w.r.t the thief is 2 Km/hr (10-8).
		His Speed in m/min will be (2 X1000)/60 = 100/3 m/min
		He has to cover 100 m.
		So, time needed is 3 mins
20.	В	We need to find three-digit numbers in which:
		All digits are different, and all digits are odd.
		So, the three digits must be from amongst 1, 3, 5, 7, and 9.
		The number is divisible by 5, i.e. the unit's digit is 5.
		The number of ways we can fill the first two digits from amongst 4 distinct digits = $4 \times 3 = 12$.
21.	С	
		Statement 1 is correct: The passage mentions, "The desert
		countries of the world and our own desert areas in Rajasthan are a
		grim reminder of the consequences of large-scale deforestation. Pockets of desert-like landscape are now appearing in other parts of
		the country including the Sutlej-Ganga Plains and Deccan Plateau.
		Where only a few decades back there used to be lush green forests
		with perennial streams and springs, there is only brown earth, bare of vegetation, without any water in the streams and springs except
		in the rainy season.". This supports the assertion of the author that
		deforestation and denudation will ultimately lead to the depletion of





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		soil resources.
		Statement 2 is incorrect: This statement goes beyond the scope of the passage. The passage nowhere mentions anything related to the common man.
		Statement 3 is correct: This is supported by the part in the passage which mentions, "the harshness of the climatic conditions" and "Where only a few decades back there used to be lush green forests with perennial streams and springs, there is only brown earth, bare of vegetation, without any water in the streams and springs except in the rainy season".
22.	D	SPECIAL → Sum of the place value of each alphabet in the alphabetical order
		SPECIAL = 19+16+5+3+9+1+12 = 65
		So, CONNECT = 3+15+14+14+5+3+20 = 74
23.		Every day of the week is repeated after 7 days.
		Hence, it will be Wednesday after 49 days. Because 7 × 7 = 49.
		After this one more day means Thursday.
		So, Gopal's birthday falls on Thursday.
24.		Statement 1 is incorrect since it implies that lower tax rates will always lead to greater investment in higher education. Although, the passage discusses the direct correlation between the two, the use of the word invariably makes it an extreme statement. Statement 2 is incorrect because it is economic freedom,
		resulting from lower tax rates, that ensures investment in higher education and not vice versa.





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		Statement 3 is correct since greater economic freedom makes way for investment in education which is a key component for building human capital.
		Although Statement 1 may look correct, there is no option for marking Statements 1 & 2 as correct assumptions. Hence, the most appropriate answer is Option (c).
25.	С	Average weight of the students of the class = Total weight of students of the class / Total number of students in the class. As no student left the class, nor any new student joined, so both the total weight and number of students remain the same. Hence, the average weight remains the same.
		Hence, the correct answer is option (c).
26.	C	Let the number of pens with A be the LCM of 2, 3, 4, 5, and $6 = 60$ Then the number of pens with $B = 60/2 = 30$ The number of pens with $C = 60/3 = 20$ The number of pens with $D = 60/4 = 15$ (an odd number) The number of pens with $E = 60/5 = 12$ The number of pens with $F = 60/6 = 10$ To ensure that all get an even number of pens, we need to double the number of pens bought by A, i.e. $60 \times 2 = 120$ So, total number of pens bought by $X = 120 + 60 + 40 + 30 + 24 + 20 = 294$





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27.	D	Given that n is a digit greater than 3. It is divisible by 3 but not divisible by 6.
		Let n = 9
		Now checking the options:
		(a) $2n = 2 \times 9 = 18$, which is not divisible by 4.
		(b) $3n = 3 \times 9 = 27$, which is not divisible by 4.
		(c) $2n + 4 = 2 \times 9 + 4 = 22$, which is not divisible by 4.
		(d) $3n + 1 = 3 \times 9 + 1 = 28$, which is divisible by 4.
		Hence, the correct answer is option (d).
28.	C	Option A is incorrect . The passage specifically talks about the decline of credit to the industrial sector. From this statement, we cannot infer the banking system's role on economic growth.
		Option B is incorrect. The passage mentions about the incompleteness of reforms. There was scope of including many other things in the reform process, including a resolution corporation for banks, as stated in the Passage. Thus, the statement given in this option cannot be construed as a logical inference from the given passage.
		Option C is correct. The passage mentions the institutional change that could have been included in the 1991 reforms in the form of a resolution corporation for banks and the consequence of such omission i.e. the lack of capacity to deal with bank failures.
		Option D is incorrect : As the decline of credit by the banks to the industrial sector is the premise mentioned. The passage talks about





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		the lack of institutional mechanisms to deal with bank failures. The
		passage does not mention encouraging foreign investments in our
		industrial sector as a resolution this problem.
29.	A	The pattern followed is,
		The place value of Y is $25 \rightarrow 25 \times 2 = 50$
		And,
		For, SEA
		The place value of S, E and A are 19, 5 and 1 respectively.
		$SEA \rightarrow (19 + 5 + 1) \times 2 = 50$
		Similarly,
		For, YACHT
		The place value of Y, A, C, H, T is 25, 1, 3, 8, 20
		$YACHT \rightarrow (25 + 1 + 3 + 8 + 20) \times 2 = 114$
30.	D	XYZXYZ = XYZ000 + XYZ = XYZ (1000 + 1) = XYZ × 1001
		Now, 1001 = 7 × 11 × 13
		So, any number of the form XYZXYZ must be divisible by 7, 11 and 13.
		Hence, option (d) is correct.
31.	D	
		We basically need to find the opposite letter of the letters in the given word.
		Opposite Letter Position = 27 – Letter Position



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		So, in case of LUCKNOW, we get:
		27 – 12 = 15 = O
		27 - 21 = 6 = F
		27 - 3 = 24 = X
		27 – 11 = 16 = P
		27 – 14 = 13 = M
		27 – 15 = 12 = L
		27 - 23 = 4 = D
		The word that we get is OFXPMLD.
32.	D	On changing the mathematical signs according to the given instructions, we get:
		10 - 30 x 100 /50 + 25
		= 10 - 30 x 2 + 25
		= 10 - 60 + 25
		= 35 - 60
		= - 25
33.	A	
		(a) is correct: The passage emphasizes the importance of a systems approach to urban planning, that factors in social, spatial and
		cultural aspects. For example, the passage mentions, "The was
		because these very subjects were absorbed into the planning
		curriculum that had its roots in the social sciences, geography and
		architecture." This implies a need for a diverse and interdisciplinary





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		approach in the curriculum for urban planning courses.
		(b) is incorrect: The passage does not discuss bureaucracy or the lack of formal training incity administration. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
		(c) is incorrect: The passage does not mention the management of urban areas as a local affair or problems of insufficient funds. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
		(d) is incorrect: While it may be true, in general, high density and poverty make development planning difficult, this aspect is not specified in the passage. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
34.	D	$EASY \rightarrow E$ is the 5th alphabet in the series
		_
		A is the first alphabet in the series
		S is the 19th alphabet, which makes it $(1+9 = 10 \Rightarrow 1+0 = 1)$
		Y is the 25th alphabet, which makes it (2+5 = 7)
		Hence, EASY = 5117
		Similarly,
		BEAM \rightarrow B is the 2nd alphabet in the series
		E is the 5th alphabet in the series
		A is the 1st alphabet in the series
		M is the 13th alphabet, which makes it (1+3 = 4)
		Hence BEAM = 2514





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35.	С	Let the smaller number be x. Larger number = $6(x) + 30 = 6x + 30$ Difference between the two numbers is 1380.
		(6x + 30) - x = 1380
		5x = 1350 i.e., x = 270
		Hence, option c.
36.	D	Volume of the cube = Side × Side × Side = 1 × 1 × 1 = 1 cubic meter
		Now, 1 cubic meter = 1000000 mililiters
37.	A	Statement 1 is correct: The passage directly mentions, "the increasingly evident unsustainability of production and consumption patterns. Current production models rely heavily on fossil fuels.". Therefore, heavy dependence on fossil fuels is a reason, as per the author, for the unsustainability of production patterns.
		Statement 2 is correct: Again, the author directly states, "the increasingly evident unsustainability of production and consumption patterns. Current production models rely heavily on fossil fuels. We now know that this is unsustainable because the resources are finite. ". Therefore, this statement is correct as well.
		Statement 3 is incorrect: The passage states that "Some developed countries have begun to alleviatethe worst effects by expanding recycling". This means that some countries are trying to reduce the effects of unsustainable production via recycling and other methods. Therefore, recycling would reduce the unsustainability in production patterns rather than aggravate it.





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38.	С	If $2x+12$ is perfectly divisible by x, then 12 must be divisible by x.
		Hence, there are six possible values of $x : (1,2,3,4,6,12)$
		If $x = 1$ then $2*1+12 = 14$ is divisible by 1
		If $x = 2$ then $2*2+12 = 16$ is divisible by 2
		If $x = 3$ then $2*3+12 = 18$ is divisible by 3
		If $x = 4$ then $2*4+12 = 20$ is divisible by 4
		If $x = 6$ then $2*6+12 = 24$ is divisible by 6
		If $x = 12$ then $2*12+12 = 36$ is divisible by 12
		Hence, option c is correct.
39.	A	Let's assume the students contributed X Rs.
		So, the teachers contributed 3X/2 Rs
		And external benefactor contributed 9X/2 Rs
		Summation of all contribution = 42,00,000 = 7X
		Or, X = 6,00,000 Rs
		Hence, teachers contributed 9,00,000 Rs
40.	C	Let the original weight of the diamond be 10k gm. So, after breaking into 4 pieces, the parts of the diamond weigh k gram, 2k gram, 3k gram, and 4k gram respectively.
		The price of the diamond varies directly in proportion to the weight. Let us assume, P = C*W2 the where C is a constant and W is the weight of the diamond.





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		Therefore, the original price is C*10k*10k = 100k2 *C
		The new weight is $Ck2 + C(2k)2 + C(3k)2 + C(4k)2 = 30k2C$
		The decrease in the price is 70,000 Rs. So, 100k2C - 30k2C = 70,000
		Or, k2C = 1,000
		Therefore, the original price = 100 k2C = 1,00,000 Rs
41.	В	Option (a) is incorrect as this statement is beyond the scope of the passage.
		Option (b) is correct as this line can be inferred from the passage and represents the crux of the passage as well.
		Option (c) is incorrect as the statement is framed like a definitive statement and we cannot be sure whether rich biodiversity is not possible at all without elephants. It can be ruled out as extreme statement.
		Option (d) is incorrect because of the mention of "as per their requirement" which cannot be deduced from the passage.
42.	D	Here, we are required to decipher or decode the pattern.
		ZERO is written as CHUR. We can see that the underlying pattern is very simple, as shown below:
		Z + 3 = C
		E + 3 = H
		R + 3 = U
		O + 3 = R





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DI AMDD
PLAYER.
8 or 9, i.e. 9 possible values.
in English alphabet.
ends with a consonant. So,
0 × 21 = 945
nerated.
rs to go from A to B = 3, and
via B = 3 × 4 = 12
to C = 3 + 12 = 15





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r		
45.	В	Statement 1 is not a valid assumption. It is nowhere indicated in the passage that small and marginal farm size is a hurdle in structural and rural transformation. Passage only mentions that 85 per cent of Indian farms are small and marginal. Statement 2 is a valid assumption. "Research reveals that the relative price scenario changed significantly (by more than 50%) in favour of agriculture in the wake of rising global prices. This boosted private investments in agriculture by more than 50%." Statement 2 can clearly be stated from the above-mentioned sentence.
		Statement 3 is not a valid assumption. The passage nowhere clearly talks about the need to build value chains for high-value agri-products like livestock and horticulture in India. It only makes mention of structural and rural transformation along with boost in private investment.
		Statement 4 is a valid assumption. Assumption can directly be derived from the sentences in the passage. "India's poverty reduction was slow during 1988-2005, but during 2005-2012, it accelerated dramatically–almost three times faster than during the earlier period. What did India do during this period? Research reveals that the relative price scenario changed significantly (by more than 50%) in favour of agriculture in the wake of rising global prices. This boosted private investments in agriculture by more than 50%."
46.	A	Zeros at the end means multiple of 10, i.e. (2×5) . So, the number of 2s or the number of 5s (whichever is lesser) will decide the number of zeros at the end of the expression. Now, $1 \times 5 \times 10 \times 15 \times 20 \times 25 \times 30 \times 35 \times 40 \times 45 \times 50 \times 55 \times 60$ = $1 \times 5 \times (5 \times 2) \times (5 \times 3) \times (5 \times 22) \times (5 \times 5) \times (5 \times 3 \times 2) \times (5 \times 7) \times (5 \times 23) \times (5 \times 9) \times (5 \times 5 \times 2) \times (5 \times 11) \times (5 \times 22 \times 3)$





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		Here, number of 2s = 10
		And number of 5s = 14
		The lesser of the two will determine the number of zeros.
		Hence, there will be 10 zeros at the end in the given expression.
47.	В	
		Let the price of the product be Rs.100 and let original sale be 100 pieces.
		Then, Total Revenue = Rs. (100*100)
		=Rs.10000.
		New revenue = Rs. (90*130)
		=Rs.11700.
		Increase in revenue = ((1700/10000) *100) %
		=17%.
48.	D	Let 1 woman's 1-day work = x
		Then, 1 man's 1-day work = $x/2$ and 1 child's 1-day work $x/4$.
		So, $(3x/2 + 4x + 6x/4) = 1/7$
		$28x/4 = 1/7 \Rightarrow x = 1/49$
		1 woman alone can complete the work in 49 days.
		So, to complete the work in 7 days, number of women required = $49/7 = 7$.





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49.	В	Option (a) is incorrect: The passage suggests the less time left for leisure after work to be an issue as no time is left for spiritual growth- "An excessive amount of labour is rule today in every circle of society, with the result that man's spiritual element cannot thrive. He finds it very difficult to spend his little leisure in serious activities." It would be incorrect to infer that the author is suggesting that man should not work hard. It only argues for a balance in the work-life.
		Option (b) is correct: The passage talks about today's workers being engaged in an excessive amount of labour, which limits his spiritual and intellectual development. Hence, we can conclude that the idea of the passage is that the great evil of our age is overstrained.
		Option (c) is incorrect: The passage does not talk about the lack of the ability of man to think well per se. It rather focusses on the less time left after excessive (hours of) labour to ponder over or involve in spiritual aspects.
		Option (d) is incorrect: The passage does not suggest that man is incapable of caring for his spiritual welfare. It just suggests that in order to go towards spirituality or anything serious, people need a proper amount of spare time after work. But people are incapable of devoting such time as a result of being overstrained with work. So, they look for purely entertaining pursuits in the little leisure time that they get.
50.	D	Assumption 1 is invalid: The passage does not suggest that flowers are creations of Nature's luxury. It emphasizes the functional role of flowers in attracting insects for pollination. The passage states, "The flower was not invented to please us. It flaunted its petals and spread its perfume to attract an insect." This indicates that flowers have a practical purpose rather than being luxurious creations.
		Assumption 2 is invalid: The author believes flowers to have functional utility, rather than being things of beauty. S/he





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		highlights the practical role of flowers in pollination: "The insect carries the pollen from flower to flower so that pollen is not carried away by wind and thus not wasted." This demonstrates the author's recognition of the usefulness of flowers beyond their beauty.
51.	D	Divisor = Dividend × Quotient + Remainder So, 1186 = Dividend × Natural number + 31 Or Dividend × Natural number = 1186 – 31 = 1155 Hence, the required natural number must be a factor of 1155.
		Now, 1155 = 1 × 3 × 5 × 7 × 11 When 1186 is divided by the required natural number, we get 31 as remainder. Thus, the required natural number must be greater than 31. Factors of 1155 which are greater than 31 are: 33, 35, 55, 77, 105, 165, 231, 385, and 1155. Thus, there are 9 natural numbers which give a remainder of 31 when 1186 is divided by them. Hence, option (d) is correct.
52.	В	Given that n is a digit greater than 3. It is divisible by 3 but not divisible by 6. Let $n = 9$ Now checking the options: (a) $2n = 2 \times 9 = 18$, which is not divisible by 4.



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	(b) $3n = 3 \times 9 = 27$, which is not divisible by 4.
	(c) $2n + 4 = 2 \times 9 + 4 = 22$, which is not divisible by 4.
	(d) $3n + 1 = 3 \times 9 + 1 = 28$, which is divisible by 4.
	Hence, the correct answer is option (d).
В	Total length of the wall = 4.5 m = 450 cm
	Total length covered by frog in one jump = 30 – 15 = 15 cm
	Number of jumps required by frog to cover 420 cm = 420/15 = 28 jumps
	In the 29th jump the frog will reach at the top of the wall and will not slide down.
	Hence, total number of jumps required = 29
	Hence, the correct answer is option (b).
A	The pattern is - 45, - 35, - 25,
	So, missing term = 20 - 15
	= 5.
В	The correct pattern is x 6-6, x 5-5, x 4 -4
	So, 24 is wrong and must be replaced by (6 x 5-5)
	i.e. 25.





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56.	В	$T(\pm 0) = V$
		T(+2) = V
		H(-2) = F
		E(+2) = G
		N (-2) =L
		So,
		W(+2) = Y
		O (-2) =M
		R (+2) = T
		D (-2) = B
57.	C	Let MP = X
		CP = 1440
		SP = 1440 + 25% of 1440 = Rs. 1800
		SP = MP - 25 % of MP
		SP = X - 25% of MP
		SP = X - 0.25X
		1800 = 0.75X
		X = 2400
		MP = RS 2400





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58.	A	Ans: (a)
		The expression is: $51 \times 27 \times 35 \times 62 \times 75$
		(51 × 27 × 35 × 62 × 75) / 100 = (51 × 27 × 35 × 62 × 3) / 4 = (51 × 27 × 35 × 31 × 3) / 2
		So, we need to find the remainder when $51 \times 27 \times 35 \times 31 \times 3$ is divided by 2.
		The value of $51 \times 27 \times 35 \times 31 \times 3$ must be an odd number, as it is a multiplication of all odd numbers. Hence,
		when it is divided by 2, we will get 1 as remainder.
		But we cancelled out 50 earlier.
		So, the remainder when $51 \times 27 \times 35 \times 62 \times 75$ is divided by $100 = 1 \times 50 = 50$
		Hence, the correct answer is option (a).
59.	D	The given statements are:
		1. A is older than B.
		2. C and D are of the same age.
		3. E is the youngest.
		4. F is younger than D.
		5. F is older than A.
		So, the persons we need to consider are: A, B, C, D, E, and F, i.e. 6 in total.
		We must use statements 2 and 3, as C has been mentioned only in statement 2, and E has been mentioned only in statement 3. Now,





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		we need to account for A, B, D and F.
		We can account for A and B using statement 1, and for D and F using statement 4.
		Using statements 1 and 3, we get:
		A > B > E
		Using statements 2 and 4, we get:
		C = D > F
		However, we still need statement 5 to find out the relative ages of these two groups. Using statement 5, we get:
		C = D > F > A > B > E
		So, C and D are the oldest and to find this out we need to use all the given five statements.
		Hence, option (d) is correct.
60.	В	Statement 1 is incorrect: The passage neither promotes monoculture nor refers to it as inevitable. In fact, it makes a case against it in the line, "Further, intensive, monoculture agriculture practices can perpetuate the food and nutrition security problem"
		Statement 2 is correct: The passage makes many indications that dependence on a few crops has negative consequences for human health and the ecosystem. This is evidenced by the lines, "disappearance of many nutritious foods such as millets." and "For long, the agriculture sector focused on increasing food production, particularly staples, which led to lower production and consumption of indigenous traditional crops/grains, fruits and other vegetables, impacting food and nutrition security in the process. Further, intensive, monoculture agriculture practices can perpetuate the food and nutrition security problem by degrading the quality of land, water and food derived through them."





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		Statement 3 is correct: The passage mentions, "disappearance of many nutritious foods such as millets", "food grain production has increased over five times since independence, it has not sufficiently addressed the issue of malnutrition", "For long, the agriculture sector focused on increasing food production particularly staples impacting food and nutrition security in the process. Further, intensive, monoculture agriculture practices can perpetuate the food and nutrition security problem". This makes a strong case for the government to incorporate nutritional security in its policies regarding food planning. Statement 4 is incorrect: While this statement might be true in its own right, the passage does not mention anything about subsidies or any particular reason(s) behind monoculture.
61.	A	1*2*3=6, 1×2×3=6 2*4*5=4, 2×4×5=40, 4+0=4 3*5*7=6, 3×5×7=105, 1+0+5=6 4*6*7, 4×6×7=168, 1+6+8=15
62.	D	When alphabets are numbered, then: GHI = 789 DEF = 456 ABC = 123 According to the question, GHI = 1578 = 789 × 2 DEF = 912 = 456 × 2



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		$ABC = 123 \times 2 = 246$
63.	В	In some code, letters P, Q, R, S, T represent numbers 4, 5, 10, 12, 15. It is not known which letter represents which number.
		Here, $Q - S = 2S$
		So, Q = 3S (i)
		The only possible values of S and Q are:
		If $S = 4$, then $Q = 12$
		Or, if S = 5, then Q = 15
		Also, $T = R + S + 3$ (ii)
		Case 1: If S = 4 and Q = 12
		T = R + S + 3 = R + 7
		This is only possible if $T = 12$ and $R = 5$.
		But both Q and T cannot be 12. So, we can eliminate this case.
		Case 2: If $S = 5$ and $Q = 15$
		T = R + S + 3 = R + 8
		This is only possible if $T = 12$ and $R = 4$.
		So, we get $R = 4$, $S = 5$, $T = 12$ and $Q = 15$. It means P must be 10.
		So, $P + R - T = 10 + 4 - 12 = 2$
64.	A	Effective discount = x+y+ xy/100
		= -20 + -30 + (-20*-30)/100





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	= -44%
	Marked price (MP) – 44% of Marked price = 560
	MP - 0.44MP = 560
	MP = 1000
	Cost Price (CP) + 60% of CP = MP = 1000
	CP + 0.6CP = 1000
	CP = 625
	CP > SP, so loss.
	Loss = 625 – 560
	= 65
A	Let 10 years ago, ages of X, Y and Z be 2x, 3x and 4x respectively
	Now their ages will be 2x+10, 3x+10 and 4x+10
	Given,
	2x+10+3x+10+4x+10=93,
	x=7
	Present age of $Z = 4x+10$
	= 38
В	Solution: (b)
	Given, percentage of acid = 80%
	Then, percentage of water = 20%







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		In 601 of colution, water = (60 = 20) / 100 = 101
		In 60L of solution, water = (60 x 20)/ 100 = 12L
		Let p liter of water be added.
		According to the question, => $\{(12 + p)/(60 + p)\}$ x 100 = 40 (: 100 - 60 = 40% water)
		=>1200 + 100p = 2400 + 40p
		\Rightarrow 60p = 1200
		p= 20L
67.	A	Solution: (a)
		$4 \times (a+3d) = 9 \times (a + 8d)$
		4a + 12d = 9a + 72 d
		9a - 4a + 72d - 12d = 0
		5a + 60d = 0
		a + 12d = 0
		13th term = 0
68.	С	Bhavana started from 26 and let's assume last number typed by her is 'X'
		Digits till 99 (two-digit numbers) = (99-26+1) × 2 = 148
		Balance digits = 208 – 148 = 60
		$(X-100+1) \times 3 = 60, X = 119$



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69.	С	It's pretty evident that neither of the two statements is sufficient alone.
		So, now let's combine the two statements.
		Let the present ages of Manisha and her mother be x and y respectively.
		As per statement 1, $y = x + 24$
		As per statement 2, $(x + 5)/(y + 5) = 3/5$
		Or $5x + 25 = 3y + 15$
		Or $3y - 5x = 10$
		Or $3(x + 24) - 5x = 10$
		Or $3x + 72 - 5x = 10$
		Or 2x = 62
		Or x = 31
		So, Manisha is 31 years old at present. Both statements together are sufficient to answer the question.
70.	С	The angle between two digits = 30°
		At 2'o clock one hand will be on 12 and second hand will be on 2
		So, 30° × 2 = 60°
		So, at 2'o clock angles between hands will be 60°.
		The correct option is 3 i.e. 60°



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71.	D	Original fractions and their decimal values are given below:
		2/3 = 0.666
		3/4 = 0.750
		4/5 = 0.800
		5/6 = 0.833
		The new fractions (after adding 5 to numerator and denominator) and their decimal values are given below:
		7/8 = 0.875
		8/9 = 0.888
		9/10 = 0.900
		10/11 = 0.909
		Now, change in values of fractions are:
		(7/8) - (2/3) = 0.875 - 0.666 = 0.209
		(8/9) - (3/4) = 0.888 - 0.750 = 0.138
		(9/10) - (4/5) = 0.900 - 0.800 = 0.100
		(10/11) - (5/6) = 0.909 - 0.833 = 0.076
		Hence, we can see that the minimum change in value is in the fraction 5/6.
		Hence, the correct answer is option (d).
72.	A	Inference (a) is correct: The passage emphasizes the importance of a systems approach to urban planning, that factors in social, spatial and cultural aspects. For example, the passage mentions,





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		"The was because these very subjects were absorbed into the planning curriculum that had its roots in the social sciences, geography and architecture." This implies a need for a diverse and interdisciplinary approach in the curriculum for urban planning courses.
		Inference (b) is incorrect: The passage does not discuss bureaucracy or the lack of formal training in city administration. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
		Inference (c) is incorrect: The passage does not mention the management of urban areas as a local affair or problems of insufficient funds. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
		Inference (d) is incorrect: While it may be true, in general, high density and poverty make development planning difficult, this aspect is not specified in the passage. Thus, it is beyond the scope of the passage and cannot be a logical or rational inference.
73.	В	Let the original income=Rs.100
		Then, expenditure=Rs.75 and savings =Rs.25
		New income =Rs.120,
		New expenditure = Rs. $((110/100) *75)$
		New expenditure = Rs. ((110/100) *75) =Rs.165/2
		=Rs.165/2
		=Rs.165/2 New savings = Rs. (120-(165/2))





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		Increase %= ((25/2) *(1/25) *100) %
		= 50%.
74.	В	$n (A U B) = n(A) + n(B) - n (A \cap B)$
		Total no. of people = 15
		No. of people who neither read French nor English = 3
		No. of people who read at least one language = $15 - 3 = 12 = n$ (A U B)
		No. of people who can read French = 7 = n(A)
		No. of people who can read English = 8 = n(B)
		n (A \cap b) is no. of people who speak both languages
		Therefore,
		12 = 7 + 8 - n (A ∩ b)
		n (A ∩ b) = 3
		Therefore, no. of people who speak both languages = 3
		No. of people who read only French = 7 - 3 = 4
		No. of people who read only English = 8 - 3 = 5
		No. of people who read exactly one language = 4 + 5 = 9
		Hence, 9 is the correct answer.
75		
75.		Answer :3
		Given:





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	A and B together can do a piece of work in 50 days.
	A is 40% less efficient than B
	Concept used:
	Total work = Efficiency of the workers × time taken by them
	Let the efficiency of B be 5a
	So, efficiency of A = $5a \times 60\%$
	⇒ 3a
	So, total efficiency of them = 8a
	Total work = 8a × 50
	⇒ 400a
	Now,
	60% of the work = 400a × 60%
	⇒ 240a
	Now,
	Required time = 240a/3a
	⇒ 80 days
	∴ A can complete 60% of the work working alone in 80 days.
76.	Ans: (b)
	Let $x = 1.272727$
	Then $100x = 127.272727$





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		So 100 (107.070707) (1.070707) = 106
		So, $100x - x = (127.272727) - (1.272727) = 126$
		Or x = 126/99 = 14/11
77.	В	Ans: (b)
		Statement 1 is not correct as mere monitoring the PDS system will not result in better child nutrition.
		Statement 2 is correct as it is related to mother's health and child's health both. Consider a girl getting married in the age of 18 and giving birth to her first child at the age of 19 and in second case a girl getting married in the age of 22/23 and giving birth to first child at the age of 23/24. In second case the child will have better chances to have better nourishment in prenatal and neo natal period.
		Statement 3 is correct as mother contains immunoglobulins which are a certain kind of proteins that allows a mother to pass immunity to her baby. It helps in providing much needed nutrition to the child and also improves the survival rate.
		Statement 4 is correct . According to UNICEF, less than 50 per cent of the population in India has access to safely managed drinking water. Also, inadequate water, sanitation and hygiene (WASH) services in India's health facilities, contributes to the high neonatal mortality rate. So, supply of safe drinking water and proper sanitation facilities to all should be ensured to check the spread of diseases and check malnutrition in children.
		Statement 5 is correct . Passage also implies children poor health due to lack of proper nutrition and associated diseases so vaccination drives should be ensured by authorities for better survival rate of the children
78.		Answer: (c)







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	Given, monthly income = 13500 and expenditure = 9000
	Then, original savings= Rs. (13500-9000) = Rs 4500
	New income = 114% of Rs. 13500 = Rs 15390
	New expenditure= 107% of Rs 9000 = Rs 9630
	New saving = Rs. (15390 – 9630) = Rs 5760
	NS = new savings, OS = Original savings
	Percentage increase in savings = {(NS – OS)/OS} X 100
	{(5760 - 4500)/4500} X 100 = (1260/4500) X 100 = 28%
79.	Ans: (d)
	Option D is the correct answer. The question asks us about the validity of the assumptions.
	Here all the 3 assumptions are valid as, statement 1 and 3 goes with the international practice of managing dams and water and statement 2 is valid as the whole passage is centered on the same theme.
80.	
	Ans: (d)
	Let the base price be Rs. 100
	Checking Condition 1:
	After 1st discount = 100 – 10% × 100 = Rs. 90
	After 2nd discount = 90 – 20% × 90 = Rs. 72
	After Service tax = $72 + 10\% \times 72 = \text{Rs. } 79.2$







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		Checking Condition 2:
		After 1st discount = $100 - 20\% \times 100 = \text{Rs. } 80$
		After 2nd discount = $80 - 10\% \times 80$ = Rs. 72
		After Service tax = $72 + 10\% \times 72 = \text{Rs. } 79.2$
		Checking Condition 3:
		After Service tax = 100 + 10% × 100 = Rs. 110
		After 1st discount = 110 – 20% × 110 = Rs. 88
		After 2nd discount = 88 – 10% × 88 = Rs. 79.2
		All the options are equally good for a customer.
		Hence option (d) is the correct answer.
81.	D	Let the number be 100.
		After multiplying the number by 4, the number will be $4 \times 100 = 400$
		But by mistake it was divided by 4. The resultant number will be $100/4 = 25$
		Required percentage change = {(400 - 25)/400} × 100 = (375/400) × 100 = 93.75%
82.	D	Prime numbers in 1-100 range are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97.
		We can see that all the numbers in options (a), (b), and (c) are prime numbers. However, number 91 in option (d) is not a prime number. As, $91 = 13 \times 7$. So, this group is different from the others.





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Hence, option (d) is correct.

83.

Option (a) is incorrect: While this option presents a correct argument as per the passage, it is the supporting/ secondary and indirect argument. The passage states that "A fundamental reason why corporate governance has moved onto the economic and political agenda worldwide has been the rapid growth in international capital markets. Effective corporate governance enhances access to external financing by firms..." So, countries around the world are trying to put in place good corporate governance, in order to access good external financing. Also, again good external financing is not the ultimate aim, but "greater investment, higher growth and employment."

Option (b) is correct: The passage mentions that "Good corporate governance structures encourage companies to provide accountability and control....Effective corporate governance enhances access to external financing by firms, leading to greater investment, higher growth and employment. Investors look to place their funds where the standards of disclosure, of timely and accurate financial reporting, and of equal treatment to all stakeholders are met." Therefore, we can infer that the central theme of the passage revolves around how good corporate governance improves the credibility of the firms. Hence this option best reflects the logical inference from the passage.

Option (c) is incorrect: While this option presents a correct argument as per the passage, it is the supporting argument. Also, the passage focusses on good corporate governance leading to improvement in the credibility of the firms in the international markets, rather than the other way around, i.e. international capital markets benefitting corporate governance.

Option (d) is incorrect: There is no direct mention of supply chains in the passage.





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0.4		
84.	С	Given:
		Let the lady's age be $10x + y$ (where x and y are the digits of her age).
		the husband's age is 10y + x (reversed digits).
		He is older, so $10y + x > 10x + y$.
		The difference between their ages is one-eleventh of their sum.
		Formula used: (Husband's age) - (Lady's age) = 1/11 × (Husband's age + Lady's age)
		Calculation:
		$\Rightarrow (10y + x) - (10x + y) = 1/11 \times [(10y + x) + (10x + y)]$
		$\Rightarrow 9y - 9x = 1/11 \times (11y + 11x)$
		$\Rightarrow 9(y - x) = y + x$
		$\Rightarrow 8y = 10x$
		\Rightarrow y = 5, x = 4
		\Rightarrow Lady's age = 10(4) + 5 = 45 years
		⇒ Husband's age = 10(5) + 4 = 54 years
		∴ The man's age is 54 years.
85.	В	Let work done by B in 1 day = x. Then work done by A in 1 day = 3x.
		A+B in 1 day = x+3x=4x work
		Total work = 12×4x=48x





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		A to complete alone = $48x/3x=16$ days.
		The state of the s
86.	В	Let the distance between X and Y be 12 km and v = 1 km/hr. Time taken in 1st journey = Distance/Speed = 12/v = 12/1 = 12 hrs Time taken in 2nd journey = 12/2v = 12/2 = 6 hrs Time taken in 3rd Journey = 12/3v = 12/3 = 4 hrs Time taken in 4th Journey = 12/4v = 12/4 = 3 hrs Now, total distance = 12 × 4 = 48 kms Average Speed = Total Distance/Total Time = 48 / (12 + 6 + 4 + 3) = 48/25 (this value lies between 1 and 2) So, the average speed of the car for the entire journey lies between v and 2v. Hence option (b) is the correct answer
87.	В	Option (a) incorrect: This option is an extreme exaggeration of what the author conveys in the passage. The author only speaks about a tendency for adults to be less thrilled by happy events- He mentions giving and receiving presents to depict one example for the same. The author nowhere makes any assertion or inference that adults cannot be thrilled by presents at all. In fact, (s)he suggests that adults could be happy like children too but only if they would be a little less cautious and scepticalabout things- "Their joys are clear and complete, because they have not yet learnt always to add 'but' to every proposition. Perhaps we are too cautious, too anxious, too sceptical. Perhaps some of our cares would shrink if we thought less about them and entered with more single-minded enjoyment into the happiness that come our way."



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		Option (b) correct: The author states that adults feel less thrilled due several reasons. For example, (based on the passage) looking too forward or too far backward, being too cautious, too anxious, too skeptical etc. Option (c) incorrect: The author, as per the passage, has properly reasoned why adults dont feel happy with presents, For example, the author reasons, "If presents bring less thrill now that we are grown up, perhaps it is because we have too much already, or perhaps it is because we have lost the fullness of the joy of giving and with it the fullness of the joy of receiving." and "Perhaps we are too cautious, too anxious, too sceptical." Hence this option is incorrect. Option (d) incorrect: The author does not talk about the "capacity" of the adult to feel loved or joy. The author only focuses only on the reasons why an adult should, but does not, feel thrilled.
88.	D	Explanation: Let 1 woman's 1-day work = x.
		Then, 1 man's 1-day work = $x/2$ and 1 child's 1-day work $x/4$.
		Then, 1 man's 1-day work = $x/2$ and 1 child's 1-day work $x/4$. So, $(3x/2 + 4x + + 6x/4) = 1/7$
		So, $(3x/2 + 4x + + 6x/4) = 1/7$
		So, $(3x/2 + 4x + + 6x/4) = 1/7$ $28x/4 = 1/7 \Rightarrow x = 1/49$
89.	С	So, $(3x/2 + 4x + + 6x/4) = 1/7$ $28x/4 = 1/7 \Rightarrow x = 1/49$ 1 woman alone can complete the work in 49 days. So, to complete the work in 7 days, number of women required =



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		numbers is 1380.
		$\therefore (6x + 30) - x = 1380$
		$\therefore 5x = 1350 \text{ i.e., } x = 270$
90.	В	If cost price of one car is 'x'
		then cost price of another car = $6,00,000 - x$
		Gain on one car will be equal to loss on the other
		$4/100 \times x = 2/100 \times (6,00,000-x),$
		x = 2,00,000 and
		6,00,000-x = 4,00,000
91.	С	Let the present age of son = x
		Then, the present age of father = $(5x + 1)$
		According to the question,
		4(x + 3) - 2 = (5x + 1) + 3
		4x + 12 - 2 = 5x + 4
		12 - 2 - 4 = 5x - 4x
		x = 6
		Present age of father = $5x + 1 = 5 * 6 + 1$
		Present age of father = $5x + 1 = 5 * 6 + 1$ = $31yr$





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92.	В	Since, in a class, 60 boys are twice that of girls.
		In a class of 60, boys = 40 and girls = 20
		in a class of co, soys to and girls 20
		It is given that, Alaka is 17th from the top and 9 boys are ahead of her.
		So,
		Number of girls before Alaka = 17-9-1=7
		and number of girls after Alaka = 20 - Alaka - 7
		= 20-1-7
		= 12
93.	D	Since, X-mas day falls on 25th December.
		So, today will be 23rd December. Also, on 23rd December, it is Monday.
		Since, number of days between 23rd December and 1st January is 9 days.
		On dividing 9 by 7, we get 2 as remainder. Hence, it will be Wednesday on new year day.
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94.	С	Given, Number of persons who can speak Tamil only = 6
		Number of persons who can speak Hindi only = 15
		Number of persons who can speak Gujarati only = 6
		Number of persons who can speak two languages = 2
		Number of persons who can speak three languages = 1





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		So, Number of persons who can speak Tamil + Hindi + Gujarati = Number of persons who can speak only one language +2 x Number of persons who can speak two languages + 3 x Number of persons who can speak three languages
		= $(6+15+6)$ = Number of persons who can speak only one language $+2x2+3x1$
		Number of persons who can speak only one language
		=27-7-20
		So, Total number of persons in the group
		= Number of persons who can speak (one + two + three) languages =20+2+1
		=23
95.	D	Total number of coins = 50
		Let 1 coin = x
		and 2 coin = y
		So, $x + y = 50$,
		and $x + 2y = 75$
		On solving both equations, we get,
		we get $x=25$ and $y=25$
96.	A	Since, X and Y are distinct non-zero digits
		∴ The required number of numbers of the form $0.XY = 9 \times 8 = 72$





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		Hence, option (a) is the correct answer.
97.	С	Statement (1) is correct. The passage clearly mentions, "all other rights. Nevertheless, this right does not come from nature, and must therefore be founded on conventions." The purpose of the first line, "The social order is a sacred right which is the basis of all other rights." is to establish that one cannot enjoy any right if there is no social order present.
		Statement (2) correct. The first line of the passage categorically states that the right of social order is the basis of all other rights. From this we can safely infer that the rights of man can be exercised only when there is social order. This is an extreme stand, but is correct as per the passage.
98.	A	X can complete 20% of work in 8 days.
		So, he will complete 100% work in 40 days.
		Similarly, Y can complete 25% of work in 6 days.
		So, he will complete 100% work in 24 days.
		In 1 day, the amount of work they will complete while working together = $1/40 + 1/24 = (3 + 5)/120 = 8/120 = 1/15$
		So, they need 15 days to complete the whole work.
		Hence, so the time needed to complete 40% of the work = 40% of 15 = 6 days
		Hence option (a) is the correct answer.
99.	С	
		Option (a) is incorrect: The only part of the passage pertaining to
		this assertion is the line, "Businesses that do not hedge against the







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101.	D	(54-35) = 19,
		Let digit at unit's place be x and digit at ten's place be y. Then, number = $10y + x$ Now, new number formed by interchanging the digits = $10x + y$ On adding both, we get Resultant number = $(10y + x) + (10x + y)$ = $11y + 11x$ = $11(x + y)$
100.	D	threat of uncertain outcomes fail." The passage nowhere specifies that businesses would need to close down or pay for pollution in future. Hence, we cannot assume the same, as there is no definite or sufficiently indicative basis for the safe. Option (b) is incorrect: The passage does not convey any solutions to the issue of climate change. Further, the statement is also too extreme ("only solution") to be true. Option (c) is correct: The passage mentions, "Technological change, meanwhile, could make a future transition away from fossil fuels cheap or it might not, leaving the world with a terrible choice between sharply reducing emissions at huge cost or suffering through the effects of unabated warming. Businesses that do not hedge against the threat of uncertain outcomes fail. The world cannot afford such recklessness on climate change." Hence, we can safely conclude that waiting to deal with carbon emissions until technology improves will not be a wise strategy. This is the main message of the author. Option (d) is incorrect: The passage does not convey any solutions to the issue of climate change. Further, the statement is also too specific, whereas the passage does not discuss the same.



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1		
		(80-61) = 19
		and (119-100) = 19
		LCM of 54, 80 and 119 is 257040.
		Required least number = 257040 + 19 = 257059
		Sum of the digits of 257059 = 2+5+7+0+5+9 = 28
100	•	
102.	A	Given X and Y are natural number i.e., (1, 2, 3, N)
		Given X, Y is not equal to 1 and Y > X
		Let, us assume $X = 2$, $Y = 4$
		For these values, we get,
		(a) XY = 2 * 4 = 8
		(b) X / Y = 2/4 =0.5
		(c) $Y / X = 4/2 = 2$
		(d) $(X + Y) / X * Y = 6/8 = 3/4 = 0.75$
		Option (a) i.e., XY will be greatest number.
		Hence, option (a) is correct answer.
103.	В	Let the monthly incomes of X and Y be 4x and 3x, respectively and the monthly expenses be 3y and 2y, respectively.
		As per question,
		4x - 3y = 6000
		And $3x - 2y = 6000$





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		4x - 3y = 3x - 2y
		⇒ x= y
		X= 6000
		Hence, total monthly income = 7x
		= 7*6000
		= 42000
104.	В	Out of 100 students,
		60 students play cricket
		30 students play football
		10 students play both.
		So, number of students who play neither cricket nor football will be given by
		= [100-(60+30-10)]
		= (100-80)
		= 20 students
105.	D	Statement D is the correct answer.
		The passage is reflecting a scenario where diversification of staple food in missing which exposed the country to a fungus and in the absence of alternatives, it resulted in the large-scale famine. The question asks the best reflection of the critical message among the 4 options given. Though all the remaining 3 statements represent a message, only Statement D qualifies as the best. This is because





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the passage is vowing against homogenous nature of food source.

OUR TEST 23. QN. NO.21 (3 FEE MOCK TEST 1)

1. White dwarf stars .. nuclear fuel

2. ...white dwarf stars ... period of time.

Which of the statements given above is/are correct (a)....(b)....(c)....(d)Read our Explanation as well.

UPSC PRELIMS 2024 QUESTION

Consider the following statements:

Statement-I: Giant starsn dwarf stars.

Statement-II: Compared to dwarf stars, ...

nuclear reactions. Which one of the following

is correct?. (a).....(b).....(c)....(d)

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HIGHLIGHTS

- * Explanation pdf with source links
- * Discussion session
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- * Current affairs centric questions









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