

Directions for the following 13(thirteen) items: Read the following five passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.

Passage 1

Malnutrition most commonly occurs between the ages of six months and two years. This happens despite the child's food requirement being less than that of an older child. Malnutrition is often attributed to poverty, but it has been found that even in households where adults eat adequate quantities of food, more than 50 per cent of children-under-five do not consume enough food. The child's dependence on someone else to feed him/her is primarily responsible for the malnutrition. Very often the mother is working and the responsibility of feeding the young child is left to the older siblings. It is therefore crucial to increase awareness regarding the child's food needs and how to satisfy them.

1. According to the passage, malnutrition in children can be reduced:

- (a) if the children have regular intake of food.
- (b) after they cross the age of five.
- (c) if the food needs of younger children are known.
- (d) if the responsibility of feeding younger children is given to adults.

Passage 2

Many people in India feel that if we cut out defence expenditure in weapon-building, we can create a climate of peace with our neighbours, subsequently reducing the conflict or creating a no-war situation. People who proclaim such ideas are either the victim of war or the propagators of false argument.

2. With reference to the above passage, which of the following is the most valid assumption?

- (a) Building of weapons system by us has instigated our neighbours to wage wars against us.
- (b) The greater spending on weapon-building by us would lessen the possibility of armed conflict without neighbours.
- (c) It is necessary to have state of the art weapons systems for national security.
- (d) Many people in India believe that we are wasting our resources in weapon-building.

Passage 3

In general, religious traditions stress our duty to God, or to some universal

ethical principle. Our duties to one another derive from these. The religious concept of rights is primarily derived from our relationship to this divinity or principle and the implication it has on our other relationships. This correspondence between rights and duties is critical to any further understanding of justice. But, for justice to be practiced, rights and duties cannot remain formal abstraction. They must be grounded in a community (common unity) bound together by a sense of common union (communion). Even as a person, this solidarity is essential to the oracles and understanding of justice.

3. With reference to the passage, the following assumptions have been made:
1. Human relationships are derived from their religious traditions.
 2. Human beings can be duty bound only if they believe in God.
 3. Religious traditions are essential to practice and understand justice.

Which of these assumption(s) is/are valid?

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

Passage 4

In the last decade, the world's gross domestic product (GDP) has increased

by 50 per cent, whereas inclusive wealth has increased by a mere 6 per cent. In recent decades, GDP-driven economic performance has only harmed inclusive wealth like human capital, and natural capital like forests, land and water. While the world's human capital which stands at 57 per cent of total inclusive wealth grew by only 8 per cent, the natural capital which is 23 per cent of total inclusive wealth declined by 30 per cent worldwide in the last two decades.

4. Which of the following is the most crucial inference from the above passage?
- (a) More emphasis should be laid on the development of natural capital.
 - (b) The growth driven by GDP only is neither desirable nor sustainable.
 - (c) The Economic performance of the countries of the world is not satisfactory.
 - (d) The world needs more human capital under the present circumstances.

Passage 5

Many pathogens that cause food borne illnesses are unknown. Food containment can occur at any stage from farm to plate. Since most cases of food poisoning go unreported, the true extent of global food borne illnesses is unknown. Improvements in international monitoring have led to greater public awareness, yet the rapid globalisation of food production increases consumers'

vulnerability by making food harder to regulate and trace. "We have the world on our plates", says an official of WHO.

5. Which of the following is the most logical corollary to the above passage?

- (a) With more option for food come more risks.
- (b) Food processing is the source of all foodborne illnesses.
- (c) We should depend on locally produced food only.
- (d) Globalisation of food production should be curtailed.

Passage 6

Inequality is visible, even statistically measurable in many instances, but the economic power that drives it is invisible and not measurable. Like the force of gravity, power is the organising principle of inequality, be it of income, or wealth, gender, race, religion and region. Its effects are seen in a pervasive manner in all spheres, but the way in which economic power pulls and tilts visible economic variables remains invisibly obscure.

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

- 1. Economic power is the only reason for the existence of inequality in a society.
- 2. Inequality if different kinds, income, wealth, etc. reinforce power.
- 3. Economic power can be analysed more through its effects than by direct empirical methods.

Which of the above assumptions is/are valid?

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

Passage 7

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-slacked 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 funds began spreading across the country, destroying nearly all the Lumpers in its oath. The resulting famine killed or displaced millions.

7. Which one of the following statements best defects the critical message of the passage?

- (a) For introducing any foreign plant into a country, the soil and climate conditions of the 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.

Passage 8

Aristocratic government ruins itself by limiting too narrowly the circle within which power is confined; oligarchic government ruins itself by the incautious scramble for immediate wealth. But even democracy ruins itself by excess of democracy. Its basic principle is the equal right of all to hold office and determine public policy. This is, at first glance, a delightful arrangement; it becomes disastrous because the people are not properly equipped by education to select the best rulers and the wisest courses. The people have no understanding and only repeat what their rulers are pleased to tell them. Such a democracy is tyranny or autocracy.

——— Plato

8. Which one of the following statements best reflects the crux of the passage given below?
- (a) Human societies experiment with different forms of government.
 - (b) Any form of government tends to deteriorate by excess of its basic principles.
 - (c) Education of all citizens ensured a perfect, functional and sustainer democracy.
 - (d) Having a government is a

necessary evil because tyranny is inherent in this form of government.

Passage 9

For two or three generations past, ever-increasing numbers of individuals have been living as workers merely, not as human beings. 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. 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 gorge his usual activities. Therefore, the so-called culture of our age is dependent more on cinema than on theatre, more on newspaper, magazines and crime stories than on serious literature.

9. The passage is based on 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.
10. Man did not seek self-improvement because he
- (a) is not intellectually capable.
 - (b) has no time to do so.

- (c) is distracted by materialism.
- (d) loves amusement and is mentally idle.

Passage 10

The digital divide is associated with negative outcomes. It is suggested that the digital divide may cause technological, immaterial, social, and educational types of inequality. Individuals who lack access to information technology are disadvantaged in knowledge-based societies and economies. Further, e-government is an important means to break barriers and bring government assistance to all citizens. Digital media usage is a strong predictor of political participation which implies that a digital divide may result in political alienation of those who lack digital media access.

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

- 1. Building cyber cafes could help reduce the digital divide.
- 2. Bridging the digital divide could help empower citizens technologically as well as politically.

Which of the above assumptions is/are valid?

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

Passage 11

Invasive species may be one of the worst environmental problems facing the

conservation of natural areas, because of their role in changing ecosystem function. At the same time, invasive species cause much human suffering and economic loss. The approach to eliminating invasive species can be improved by a better understanding of the various types of invasive species, and the scientific hypotheses surrounding their ability to invade novel environments. Despite the billions of dollars spent each year, invasive species are difficult if not impossible to eliminate after they have been established.

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

- 1. Invasive species, if not eliminated in future, could threaten the food security of people.
- 2. If invasive species are not allowed to change the ecosystem function, natural areas can definitely be conserved.

Which of the above assumptions is/are valid?

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

Passage 12

One of the biggest problems that solar energy technology poses is that energy is only generated while the sun is shining. That means nighttime and overcast days can interrupt the supply. The shortage created by this interruption would not be a problem if there were low-cost ways of

storing energy as extremely sunny periods can generate excess capacity. As the global capacity for solar power continues to rise, nations like Japan and other global leaders in solar energy technology are focusing on developing adequate energy storage to deal with this issue.

13. Which of the following is/are the most rational and logical inference/inferences that can be drawn from the passage?

1. Tropical countries with year-long availability of sunshine are less dependent on the storage of solar energy.
2. In future, the cost of storage of solar energy may reduce due to the involvement of global leaders.

Select the correct answer from the code given below:

- (a) 1 only
- (b) 2 only
- (c) 1 and 2
- (d) None

14. My house is to the South of market and the post office is to the East of my house, which is as far away from the market as from the post office. I first go to the market and then start walking to the post office. Just when I am halfway, I meet a friend and then we decide to walk back to house.

In which direction are we walking now?

- (a) North-West
- ~~(b) South-West~~

- (c) North-East
- (d) South-East

Directions (Q 15-16) Examine the information given below and answer the questions that follow:

P, Q, R, S, T and U are members of a family. There are two married couples. Q is an engineer, and the father of T. U is the grandfather of R and is a lawyer. S is the grandmother of T and is a housewife. There is one engineer, one lawyer, one teacher, one housewife and two students in the family.

15. Which of the following are two married couples?

- ~~(a) US and QP~~
- ✓(b) US and QT
- (c) US and RP
- ✗(d) TS and RU

16. Which of the following is definitely a group of male members?

- (a) Q, U and T
- (b) U and T
- (c) Q, U and P
- ✗(d) Q and U

17. A cube of 3 cm side is divided into smaller cubes of side 1 cm. How many times will it be cut to obtain smaller cubes?

- (a) 8
- (b) 4
- (c) 6
- ✗(d) 9

18. Select the combination of letters which sequentially placed in the gaps of the given letter series will complete the series:

a b - n a b - - n o - - c d m n o p

- (a) a b m n o
- (b) a a m m n
- (c) m c m a b
- (d) m n c a

19. Statements:

All buses are cars.
Some buses are not motorcycles.
No motorcycles are scooters.
All scooters are tempos.

Conclusions.

- 1. Some tempos are not cars.
- 2. Some tempos are not motorcycles.
- 3. No cars are tempos.
- 4. Some cars are not motorcycles.

Which of the following conclusions follow(s) the above statements?

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

20. The price of an item is decreased by 10%, then by 20%, and finally by 30%. This is equivalent to:

- (a) Decreasing the price by 50.4%
- (b) Decreasing the price by 60%.
- (c) Decreasing the price by 40.5%
- (d) Decreasing the price by 49.6%

21. A candidate who gets 20% marks, fails by 10 marks. Another candidate who gets 42% marks, gets 12% of the maximum marks more than the passing marks. Find the maximum marks.

- (a) 50
- (b) 100
- (c) 150
- (d) 200

22. In a certain coded language, SUBLIME is coded as BEILMSU, NASTY is coded as ANSTY, then DIVINE is coded as:

- (a) DIEVIN
- (b) DEIINV
- (c) VNIIED
- (d) NIVIED

23. In a class, the average score of girls in an examination is 73 and that of boys is 71. The average score of whole class is 71.8. The percentage of girls in the class is:

- (a) 60%
- (b) 40%
- (c) 30%
- (d) 18%

24. Two numbers are such that the ratio between them is 4:7. If each is increased by 4, the ratio becomes 3:5. The larger number is:

- (a) 36
- (b) 48
- (c) 56
- (d) 64

25. A person who has a certain amount with him goes to a market. He can buy 50 oranges or 40 mangoes with the amount he has. However, he retains 10% of the amount for taxi fares, buys 20 mangoes, and purchases oranges with the remaining amount. Number of oranges he purchased is:

- (a) 36
- (b) 40
- (c) 15
- (d) 20

26. The average weight of 21 boys was recorded as 64 kg. If the weight of the teacher was added, the average increased by one kg. What was the teacher's weight?

- (a) 86 kg
- (b) 64 kg
- (c) 72 kg
- (d) 98 kg

27. 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

28. If R and S are different integers both divisible by 5, then which of the following is not necessarily true?

- (a) $R-S$ is divisible by 5
- (b) $R+S$ is divisible by 10
- (c) $R \cdot S$ is divisible by 25
- (d) R/S is divisible by 5

29. 15 students failed in a class of 52. After removing the names of failed students, a merit order list has been prepared in which the position of Ramesh is 22nd from the top. What is his position from the bottom?

- (a) 18th
- (b) 17th
- (c) 16th
- (d) 15th

30. A vessel full of water weighs 40 kg. If it is one-third filled, its weight becomes 20 kg. What is the weight of the empty vessel?

- (a) 10 kg
- (b) 15 kg
- (c) 20 kg
- (d) 25 kg

31. A person bought a car and sold it for Rs. 3,00,000. If he incurred a loss of 20%, then how much did he spend to buy the car?

- (a) Rs. 3,60,000
- (b) Rs. 3,65,000
- (c) Rs. 3,70,000
- (d) Rs. 3,75,000

32. When a ball is dropped, it bounces back to $\frac{3}{4}$ th of the height from which it was dropped from. If the ball is dropped from a height of 30 m, find the total vertical distance travelled by the ball before it comes to rest. (Considering there is no air resistance):

- (a) 210 m
- (b) 240 m
- (c) 180 m
- (d) 200 m

33. D is a positive integer, which is a product of two prime numbers. Which of the following cannot be a value of D?

- (a) 46
- (b) 91
- (c) 153
- (d) 143

34. If the numerator of a fraction is increased by a% and denominator of the fraction is increased by b%, then what will be the ratio of original fraction to new fraction?

- (a) $\frac{a}{b}$
- (b) $\frac{(a+1)}{(b+1)}$
- (c) $\frac{(100+b)}{(100+a)}$
- (d) $\frac{b}{a}$

35. If value of a is between -6 and -3 and value of b is between -3 and 3, then the value of $(a^2 - b^2)$ must be in between which of the following ranges?

- (a) -36 and 9

- (b) -36 and -9
- (c) 0 and 9
- (d) 0 and 36

36. Consider the following students in an examination:

- A scored more than B
- C scored as much as D
- E scored less than F
- B scored more than C
- F scored less than D

Who scored the highest:

- (a) E
- (b) C
- (c) D
- (d) F

37. The following questions are based upon the alphabetical series given below:

T J E N U Q A K I O G R M S P B H F
D L V C

What will come in place of question mark (?) in the following series based on the above alphabetical series?

T N E Q U K ?

- (a) OA
- (b) IR
- (c) AO
- (d) None of these

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

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

39. A number is multiplied by one-sixth, then divided by one-seventh, and then multiplied by seven-tenth. Result is what percent of the original number?

- (a) 49/6%
- (b) 50/3%
- (c) 7/42 %
- (d) 294/10%

40. Two pipes A and B can independently fill a tank completely in 20 and 30 minutes respectively. If both the pipes are opened simultaneously, how much time will they take to fill the tank completely?

- (a) 10 minutes
- (b) 12 minutes
- (c) 15 minutes
- (d) 25 minutes

