

Directions for the following 8 (eight) items :

Read the following **seven** passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.

Passage - 1

Political theorists no doubt have to take history of injustice, for example, untouchability, seriously. The concept of historical injustice takes note of a variety of historical wrongs that continue into the present in some form or the other and tend to resist repair. Two reasons might account for resistance to repair. One, not only are the roots of injustice buried deep in history, injustice itself constitutes economic structures of exploitation, ideologies of discrimination and modes of representation. Two, the category of historical injustice generally extends across a number of wrongs such as economic deprivation, social discrimination and lack of recognition. This category is complex, not only because of the overlap between a number of wrongs, but because one or the other wrong, generally discrimination, tends to acquire partial autonomy from others. This is borne out by the history of repair in India.

1. What is the **main idea** that we can infer from the passage ?
 - (a) Untouchability in India has not been taken seriously by political theorists.
 - (b) Historical injustice is inevitable in any society and is always beyond repair.
 - (c) Social discrimination and deprivation have their roots in bad economies.
 - (d) It is difficult, if not impossible, to repair every manifestation of historical injustice.

2. On the basis of the above passage, the following assumptions have been made :

1. Removal of economic discrimination leads to removal of social discrimination.
2. Democratic polity is the best way to repair historical wrongs.

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 - 2

Education plays a great transformatory role in life, particularly so in this rapidly changing and globalizing world. Universities are the custodians of the intellectual capital and promoters of culture and specialized knowledge. Culture is an activity of thought, and receptiveness to beauty and human feelings. A merely well informed man is only a bore on God's earth. What we should aim at is producing men who possess both culture and expert knowledge. Their expert knowledge will give them a firm ground to start from and their culture will lead them as deep as philosophy and as high as art. Together it will impart meaning to human existence.

3. On the basis of the above passage, the following assumptions have been made :

1. A society without well educated people cannot be transformed into a modern society.
2. Without acquiring culture, a person's education is not complete.

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 - 3

Soil, in which nearly all our food grows, is a living resource that takes years to form. Yet it can vanish in minutes. Each year 75 billion tonnes of fertile soil is lost to erosion. That is alarming — and not just for food producers. Soil can trap huge quantities of carbon dioxide in the form of organic carbon and prevent it from escaping into the atmosphere.

4. On the basis of the above passage, the following assumptions have been made :

1. Large scale soil erosion is a major reason for widespread food insecurity in the world.
2. Soil erosion is mainly anthropogenic.
3. Sustainable management of soils helps in combating climate change.

Which of the above assumptions is/are valid ?

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

BKL-S-HJU

Passage - 4

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 ways in which economic power pulls and tilts visible economic variables remain invisibly obscure.

5. On the basis of 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 of different kinds, income, wealth, etc. reinforces 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

(5-A)

Passage - 5

Climate change may actually benefit some plants by lengthening growing seasons and increasing carbon dioxide. Yet other effects of a warmer world, such as more pests, droughts, and flooding, will be less benign. How will the world adapt? Researchers project that by 2050, suitable croplands for four commodities — maize, potatoes, rice and wheat — will shift, in some cases pushing farmers to plant new crops. Some farmlands may benefit from warming, but others won't. Climate alone does not dictate yields; political shifts, global demand, and agricultural practices will influence how farms fare in the future.

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

- (a) Farmers who modernize their methods and diversify their fields will be in an advantageous position in future.
- (b) Climate change will adversely affect the crop diversity.
- (c) Shifting major crops to new croplands will lead to a great increase in the total area under cultivation and thus an increase in overall agricultural production.
- (d) Climate change is the most important factor affecting the agricultural economy in the future.

Passage - 6

A bat's wings may look like sheets of skin. But underneath, a bat has the same five fingers as an orangutan or a human, as well as a wrist connected to the same cluster of wrist bones connected to the same long bones of the arm. What can be more curious than that the hand of a man, formed for grasping, that of a mole for digging, the leg of the horse, the paddle of the porpoise, and the wing of the bat, should all be constructed on the same pattern?

7. Which one of the following is the *most logical, scientific and rational inference* that can be made from the above passage?

- (a) Different species having similar structure of hands is an example of biodiversity.
- (b) Limbs being used by different species for different kinds of work is an example of biodiversity.
- (c) Man and the aforementioned animals having similar structure of limbs is an example of coincidence in evolution.
- (d) Man and the aforementioned animals have a shared evolutionary history.

Passage - 7

Around 56 million years ago, the Atlantic Ocean had not fully opened and animals, perhaps including our primate ancestors, could walk from Asia to North America through Europe and across Greenland. Earth was warmer than it is today, but as the Palaeocene epoch gave way to Eocene, it was about to get much warmer still — rapidly and radically. The cause was a massive geologically sudden release of carbon. During this period called Palaeocene - Eocene Thermal Maximum or PETM, the carbon injected into the atmosphere was roughly the amount that would be injected today if humans burned all the Earth's reserves of coal, oil and natural gas. The PETM lasted for about 1,50,000 years, until the excess carbon was reabsorbed. It brought on drought, floods, insect plagues and a few extinctions. Life on Earth survived — indeed, it prospered — but it was drastically different.

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

1. Global warming has a bearing on the planet's biological evolution.
2. Separation of land masses causes the release of huge quantities of carbon into the atmosphere.
3. Increased warming of Earth's atmosphere can change the composition of its flora and fauna.
4. The present man-made global warming will finally lead to conditions similar to those which happened 56 million years ago.

Which of the assumptions given above are valid ?

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

9. The number of times the digit 5 will appear while writing the integers from 1 to 1000 is

- (a) 269
- (b) 271
- (c) 300
- (d) 302

10. A solid cube is painted yellow, blue and black such that opposite faces are of same colour. The cube is then cut into 36 cubes of two different sizes such that 32 cubes are small and the other four cubes are big. None of the faces of the bigger cubes is painted blue. How many cubes have only one face painted ?

- (a) 4
- (b) 6
- (c) 8
- (d) 10

11. A and B are two heavy steel blocks. If B is placed on the top of A, the weight increases by 60%. How much weight will reduce with respect to the total weight of A and B, if B is removed from the top of A ?

- (a) 60%
- (b) 45.5%
- (c) 40%
- (d) 37.5%