

CAT 2017 RC

Despite their fierce reputation, Vikings may not have always been the plunderers and pillagers popular culture imagines them to be. In fact, they got their start trading in northern European markets, researchers suggest. Combs carved from animal antlers, as well as comb manufacturing waste and raw antler material has turned up at three archaeological sites in Denmark, including a medieval marketplace in the city of Ribe. A team of researchers from Denmark and the U.K. hoped to identify the species of animal to which the antlers once belonged by analyzing collagen proteins in the samples and comparing them across the animal kingdom, Laura Geggel reports for LiveScience. Somewhat surprisingly, molecular analysis of the artifacts revealed that some combs and other material had been carved from reindeer antlers.... Given that reindeer (*Rangifer tarandus*) don't live in Denmark, the researchers posit that it arrived on Viking ships from Norway. Antler craftsmanship, in the form of decorative combs, was part of Viking culture. Such combs served as symbols of good health, Geggel writes. The fact that the animals shed their antlers also made them easy to collect from the large herds that inhabited Norway.

Since the artifacts were found in marketplace areas at each site it's more likely that the Norsemen came to trade rather than pillage. Most of the artifacts also date to the 780s, but some are as old as 725. That predates the beginning of Viking raids on Great Britain by about 70 years. (Traditionally, the so-called "Viking Age" began with these raids in 793 and ended with the Norman conquest of Great Britain in 1066.) Archaeologists had suspected that the Vikings had experience with long maritime voyages [that] might have preceded their raiding days. Beyond Norway, these combs would have been a popular industry in Scandinavia as well. It's possible that the antler combs represent a larger trade network, where the Norsemen supplied raw material to craftsmen in Denmark and elsewhere.

Questions

Q1) The primary purpose of the passage is:

- A) to explain the presence of reindeer antler combs in Denmark.
- B) to contradict the widely-accepted beginning date for the Viking Age in Britain, and propose an alternate one.
- C) to challenge the popular perception of Vikings as raiders by using evidence that suggests their early trade relations with Europe.
- D) to argue that besides being violent pillagers, Vikings were also skilled craftsmen and efficient traders.

Q2) The evidence – “Most of the artifacts also date to the 780s, but some are as old as 725” – has been used in the passage to argue that:

- A) the beginning date of the Viking Age should be changed from 793 to 725.
- B) the Viking raids started as early as 725.
- C) some of the antler artifacts found in Denmark and Great Britain could have come from Scandinavia.
- D) the Vikings' trade relations with Europe pre-dates the Viking raids.

Q3) All of the following hold true for Vikings EXCEPT

- A) Vikings brought reindeer from Norway to Denmark for trade purposes.
- B) Before becoming the raiders of northern Europe, Vikings had trade relations with European nations.
- C) Antler combs, regarded by the Vikings as a symbol of good health, were part of the Viking culture.
- D) Vikings, once upon a time, had trade relations with Denmark and Scandinavia.

Answers

Q1: Option (C)

Q2: Option (D)

Q3: Option (A)

CAT 2017 RC

Typewriters are the epitome of a technology that has been comprehensively rendered obsolete by the digital age. The ink comes off the ribbon, they weigh a ton, and second thoughts are a disaster. But they are also personal, portable and, above all, private. Type a document and lock it away and more or less the only way anyone else can get it is if you give it to them. That is why the Russians have decided to go back to typewriters in some government offices, and why in the US, some departments have never abandoned them. Yet it is not just their resistance to algorithms and secret surveillance that keeps typewriter production lines – well one, at least – in business (the last British one closed a year ago). Nor is it only the nostalgic appeal of the metal body and the stout well-defined keys that make them popular on eBay.

A typewriter demands something particular: attentiveness. By the time the paper is loaded, the ribbon tightened, the carriage returned, the spacing and the margins set, there's a big premium on hitting the right key. That means sorting out ideas, pulling together a kind of order and organising details before actually striking off. There can be no thinking on screen with a typewriter. Nor are there any easy distractions. No online shopping. No urgent emails. No Twitter. No need even for electricity – perfect for writing in a remote hideaway. The thinking process is accompanied by the encouraging clack of keys, and the ratchet of the carriage return. Ping!

## Questions

Q1) Which one of the following best describes what the passage is trying to do?

- A) It describes why people continue to use typewriters even in the digital age.
- B) It argues that typewriters will continue to be used even though they are an obsolete technology.
- C) It highlights the personal benefits of using typewriters.
- D) It shows that computers offer fewer options than typewriters.

Q2) According to the passage, some governments still use typewriters because:

- A) they do not want to abandon old technologies that may be useful in the future.
- B) they want to ensure that typewriter production lines remain in business.
- C) they like the nostalgic appeal of typewriter.
- D) they can control who reads the document.

Q3) The writer praises typewriters for all the following reasons EXCEPT

- A) Unlike computers, they can only be used for typing.
- B) You cannot revise what you have typed on a typewriter.
- C) Typewriters are noisier than computers.
- D) Typewriters are messier to use than computers.

## Answers

Q1: Option (A)

Q2: Option (D)

Q3: Option (D)

Kerala is reeling under the worst floods since 1924. The Southwest monsoon that began on June 1 has been 30 per cent in excess in the state. All 44 rivers in the state are in spate and 35 of its 39 dams are overflowing. A red alert has been sounded in all 14 districts while 12 of them are already flooded. In the past week alone, 94 persons have died. Landslides, mudslips and flashfloods have been reported from all over the state. Over one lakh people have shifted to relief camps and many more are reportedly marooned in houses and buildings cut off by flood waters. The state's main airport at Nedumbassery, Kochi, was closed on Wednesday after water from Periyar, the state's largest river, flooded the runway.

Road and rail links are in disarray with central Kerala, including the city of Ernakulam, cut off from rest of the state. Parts of the state are now without electricity. Flood waters have entered the tourist destination of Munnar and the Triveni Sangamam at Sabarimala. Relief operations are in full swing and it will need generous

help from the Centre and other agencies as a large part of the state's transport infrastructure will have to be repaired or rebuilt. While the immediate concern is rescue and relief, this deluge and the tragedy it has wreaked should be a reason to reflect on Kerala's development trajectory. Excess rainfall is primarily responsible for the disaster, but unplanned development, particularly in construction and quarrying, have contributed to the death and destruction.

Q1. Which of the following can be the most appropriate title for the passage above?

- a) Faulty Infrastructure
- b) The Trickle
- c) The Tragedy
- d) The Deluge

Solution:

The most appropriate title for the passage above is "The Deluge". Deluge means a severe flood. Hence, the paragraph is about the floods in Kerala.

Q2. Which of the following statement(s) is/are incorrect in context with the passage?

- (I) Many river channels have been historically straightened to improve navigability.
- (II) India has witnessed many of the largest, most catastrophic floods, causing irreparable damage to people's livelihood, property, and crucial infrastructure.
- (III) Kerala will need help from centre and other agencies to rebuild state's transport infrastructure which has been damaged.

- a) Only (I)
- b) Only (II)
- c) Both (I) and (II)
- d) Only (III)

Solution:

Only option (III) is correct. Refer paragraph 2 following lines "Relief operations are in full swing and it will need generous help from the Centre and other agencies as a large part of the state's transport infrastructure will have to be repaired or rebuilt."

Q3. Which of the following statements is/are true in context with the passage?

- (I) All 44 Rivers in the state are flooded and 35 of its 39 dams are overflowing.
- (II) Kerala's main airport at Nedumbassery, Kochi, was closed on Wednesday after water from Periyar River flooded the runway.
- (III) A red alert has been sounded in all 14 districts while 12 of them are already flooded.

- a) Only (I)
- b) Only (II)
- c) Only (III)
- d) All of the Above

Solution:

All three statements are true in reference to the passage.

Passage 2

Britain (and France) declared war on Germany in 1939. In preparation, India's economy was geared up by the colonial government towards the war effort through imposition of controls. The first was the exchange control. Completely convertible into any currency until then, the rupee was made inconvertible. Transferring money outside the sterling area required permission under rules that were laid down in London. The maze of controls grew as the war went on. Dollar securities held by private individuals were compulsorily acquired, and compensation was in rupees at the market price on an arbitrary date, resulting in losses to many. The Bank of England (BoE) sold the securities so acquired, adding the dollars to its coffers. Dollars for the war were also raised by selling silver bullion from India's reserves to governments outside the sterling area. Dollars could be

spent on imports of essential consumables, not capital goods. What was essential was defined by the war requirements until 1946, when civilian requirements were included. The restrictions on capital goods imports continued because the BoE had blocked what were called India's sterling balances. By the end of World War II, India had accumulated a sizeable sterling balance of £1,300 million — India's earnings in foreign currency on its exports for the war, deposited in the BoE in the form of sterling to the credit of the Reserve Bank of India (RBI) account.

The balance had grown with import controls limiting forex outflows. The corresponding increase in rupee circulation stoked war inflation in India. After the war ended, the transfer of the sterling balances was negotiated between India and Britain. (After Partition, Pakistan joined the talks.) India's key negotiator, B.K. Nehru, has described the protracted settlement in his memoirs. Winston Churchill had been threatening to write off the sterling balances. In the first round of negotiations, in 1946, by which time Churchill was out of power, the British delegation sought a considerable scaling-down of the sterling balances. India sought word that the sterling — that had become much overvalued — would not be devalued. The visitors refused. The sterling to them was still the premium currency against which other currencies were valued.

Q1. In which of the following year/years were the sterling balances negotiations held?

- a) 1946
- b) 1947
- c) 1948
- d) Both (a) and (b)

Solution:

Refer the following lines: "In the first round of negotiations, in 1946, by which time Churchill was out of power, the British delegation sought a considerable scaling-down of the sterling balances. India sought word that the sterling — that had become much overvalued — would not be devalued. The visitors refused." "The next sterling balances negotiations were held in London in July 1947 against the backdrop of the Government of India having been thrown into chaos by the advancement of the date Independence/Partition to August 15, 1947, from June 30, 1948. "

Q2. What controls were imposed by the colonial government to gear up India's Economy towards the war?

- a) Dollar securities held by private individuals were compulsorily acquired, and compensation was in rupees at the market price on an arbitrary date, resulting in losses to many.
- b) Transferring money outside the sterling area required permission under rules laid down in London.
- c) Indian rupee was made inconvertible from completely convertible.
- d) All of the Above

Solution:

All are correct. Refer Paragraph 1.

Q3. Which of the following statements is/are true in context with the passage?

(I) The sterling was floated against the major international currencies in the early 1970s, the rupee as late as 1993-1994.

(II) India devalued the rupee proportionally: from ₹3.309 to a dollar to ₹4.762.

(III) Dollars could be spent on imports of essential consumables, not capital goods.

- a) Only (I)
- b) Only (II)
- c) Only (III)
- d) Both (I) and (II)

Solution:

Only (III) is correct. Refer paragraph 2.

Q4. Which of the following statement(s) is/are incorrect in context with the passage?

- (I) Limits were placed on how much could be drawn in a given period from the balances.  
(II) India had accumulated a sizeable sterling balance of £1,300 million by the end of World War II.  
(III) Dollars for the war were raised by selling silver bullion from India's reserves to governments outside the sterling area.
- Only (I)
  - Only (II)
  - Only (III)
  - Both (I) and (II)

Solution:

Only (I) is incorrect. Both (II) and (III) are correct. Option (II) Refer paragraph 2 Option (III) Refer paragraph 1

Q5. Which of the following can be the most appropriate title for the passage above?

- Transferring Money Outside India
- War and its After Effects
- Control on Money
- A Brief History of the Rupee

Solution:

The most appropriate title for the passage is "A Brief History of the Rupee"

Passage 3

Social sector benefits, notably rice at Rs 2 a kg and 100 days of work under the Mahatma Gandhi NREGS, have scarcely been able to address the grinding privation in the Janglemahal belt that straddles West Bengal's Purulia, Bankura, West Midnapore and the newly-created Jhargram districts. Whether or not this failure on the food front facilitated the Bharatiya Janata Party's victory in the region's panchayat elections need not detain us here. In point of fact, 14 years after the five starvation deaths at Amlasole (West Midnapore), the recent death out of starvation of a 67-year-old woman in Purulia, has caused a flutter in the district administration's roost. This is not to forget the deaths on account of starvation in Darjeeling's tea estates.

In death, Bimala Pande symbolises the failure of the local administration in Purulia, a reaffirmation that the best-laid plans can be made to flounder by the bureaucracy, especially at the subordinate levels. The prognosis that she "died of illness and not starvation" is to split hairs between cause and effect. That said, the response of the government has not been as facile as that of its predecessor in the wake of the Amlasole tragedy. It would be pertinent to recall that the Supreme Court had then ordered an inquiry into the tragedy in West Midnapore. The Bengal Left had drawn a fine distinction between starvation and malnutrition. Death caused by hunger lends no scope for semantic quibbling. Yet the present dispensation will have to concede that for all the drum-beating over welfare, the failure to provide the promised entitlements has driven ~ at least one individual ~ quicker to death than to a handful of grain. The truth of the matter was recounted by none other than her son ~ "She was without food for seven days prior to her death on 9 August. We ran from pillar to post to get ration cards and other benefits like the Pradhan Mantri Awas Yojana, but failed to get our names listed." In the net, the family wasn't listed in the NREGA scheme.

Q1. As per the passage, what does the death of Bimala Pande symbolise about the administration?

- It gives a confirmation that even the best laid plans can be made to face difficulty by the administration, especially at higher levels.
- It gives a confirmation that even the worst laid plans can be made effective by the administration, especially at higher levels.
- It gives a confirmation that even the best laid plans can be made to face difficulty by the administration, especially at lower levels.
- It gives a confirmation that even the worst laid plans can be made effective by the administration, especially at lower levels.

Solution:

Refer the following lines in paragraph 2 "In death, Bimala Pande symbolises the failure of the local administration in Purulia, a reaffirmation that the best-laid plans can be made to flounder by the bureaucracy, especially at the subordinate levels." Here, flounder means to face difficulty.

Q2. Which of the following can be the most appropriate title for the passage above?

- a) Rise in prices of Rice
- b) Social Sector Benefits
- c) A painful signal
- d) Benefits of MNREGA Scheme

Solution:

The most appropriate title for the passage is "A painful signal". In the passage, the author is focussing upon the lack of implementation of social sector benefits by relating it with a painful story. He tells the extent of losses that occur due to ineffective implementation of social sector benefits scheme by depicting a sad part of it.

Q3. Which of the following statements are incorrect in context with the passage?

- (I) Mahatma Gandhi's NREGS has scarcely been able to address the scarcity in the Junglemahal belt in West Bengal.
  - (II) The death of Bimala Pande symbolises the failure of the local administration in Purulia
  - (III) It is evident now that over the last five years there has been sluggishness in MGNREGS's implementation.
- a) Only (I)
  - b) Only (II)
  - c) Only (III)
  - d) Both (I) and (II)

Solution:

Only statement (III) is incorrect. Both (I) and (II) are correct. Refer the following lines: Statement (I)"Social sector benefits, notably rice at Rs 2 a kg and 100 days of work under the Mahatma Gandhi NREGS, have scarcely been able to address the grinding privation in the Junglemahal belt that straddles West Bengal's Purulia, Bankura, West Midnapore and the newly-created Jhargram districts. " Statement (II)"In death, Bimala Pande symbolises the failure of the local administration in Purulia, a reaffirmation that the best-laid plans can be made to flounder by the bureaucracy, especially at the subordinate levels. "

Passage 4

Are the latest employment estimates by the Central Statistics Office (CSO) factually correct? No. They are off the mark, and confined to the economy's organised or formal sector, accounting at best for 15% of the workforce. Is there a paradox in high output growth rates and the marginal effect on employment? Probably not, if one acknowledges that GDP estimates (after the latest revision a few years ago) have apparently overstated domestic output growth on account of the infirmities in the methods applied and datasets used. Between September 2017 and April 2018, says a CSO media release last week titled "Payroll Reporting in India: An Employment Perspective – April 2018", the economy added 4.1 million new jobs in the formal sector. Apparently, these estimates supplement the data on organised sector employment that are reported regularly in the Economic Survey since the early 1960s, compiled by the Directorate General of Employment, Ministry of Labour and Employment.

The CSO release defines jobs as ones that provide at least one government financed (or mandated) social security benefit such as Employees' Provident Fund (EPF), National Pension Scheme, or Employees' State Insurance Scheme. NITI Aayog and official economists have also put out similar estimates since early this year, inviting widespread scepticism among knowledgeable people. As the formal sector accounts for just about 8-15% of India's workforce (depending on the definitions used), the official estimates are completely silent about the majority of the workforce engaged in the informal sector. Ignoring the tiny size of the formal sector for the

moment, how reliable or credible are the official estimates? Very little and for two reasons: the estimates are based on administrative records of implementing the social security schemes, whose completeness, consistency and accuracy are unknown; and since a formal (organised) sector worker, in principle, can legitimately access (or subscribe to) more than one social security scheme, double counting is a distinct possibility.

Q1. Which of the following statements are incorrect in context with the passage?

- (I) The employment estimates are off the mark as they are confined to the formal sector.
  - (II) The Indian economy was subjected to massive external forces of formalisation by the twin forces of demonetisation in FY-2017 and the GST in FY-2018.
  - (III) It is well-known that when an employee loses her job or stops working, her membership from the EPFO database is not removed automatically.
- a) Only (II)
  - b) Only (I)
  - c) Both (I) and (II)
  - d) Both (II) and (III)

Solution:

Refer 1st three lines of the passage. Both (II) and (III) are incorrect.

Q2. Why are the official estimates considered less reliable as stated in the passage?

The estimates are based on administrative records of implementing the social security schemes, whose completeness, consistency and accuracy are unknown.

1. A formal sector worker can subscribe to more than one social security scheme and so there is a possibility of double counting.
2. It assumed that any 18- to 25-year-old registering with the EPFO are not legal subscribers of the schemes.
3. Both (a) and (b)
4. None of the Above

Solution:

Both (a) and (b) are the reasons. Refer the following lines "Ignoring the tiny size of the formal sector for the moment, how reliable or credible are the official estimates? Very little and for two reasons: the estimates are based on administrative records of implementing the social security schemes, whose completeness, consistency and accuracy are unknown; and since a formal (organised) sector worker, in principle, can legitimately access (or subscribe to) more than one social security scheme, double counting is a distinct possibility"

Q3. Which of the following can be the most appropriate title for the passage above?

- a) Flaws in EPFO methodology
- b) Payroll Reporting in India
- c) Facts of the Central Statistics Office
- d) The Paradox of Job Growth

Solution:

The most appropriate title for the passage above is "The Paradox of Job Growth".

Passage 5

In GST On the services front, too, there are important tweaks and clarifications. Overall, industry and consumers may consider these rate cuts, largely on products and services of mass use, as a stimulus to drive consumption ahead of the festive season. It is also a sign that the government has begun the groundwork to woo voters ahead of State and parliamentary elections. Whichever way one looks at it, the GST Council's 28th meeting has

significantly altered the course of the nearly 13-month-old tax regime. Given that GST rates on more than 200 items were already tweaked in past meetings, the original rate structure has been upended to a great extent. The actual impact of these changes on product prices and consumption demand will be visible soon, but the government's confidence in such a rate reduction gambit indicates it is now comfortable with revenue yields from the GST.

Estimates of revenue losses from these rate cuts vary widely, but it's too early to fret about the impact on macro fiscal numbers. If implemented well, the revenue lost could be offset by higher consumption that may lead to more investments over time. Moreover, improvements in compliance can be expected from the Council's decision to further simplify paperwork for small and medium enterprises. But there are two major concerns. First, since the new rates are to kick in from July 27, companies may not have enough time to rework pricing strategies and replace existing market inventory, failing which they could face anti-profiteering action. Second, members of the Council have for the first time questioned its functioning and alleged that not all of the changes and rate cuts were placed on the agenda. For a tricky tax that is still a work in progress, distrust between the Centre and the States would make further rationalisation difficult. Such friction must be avoided in a system in which the States have so far worked in tandem with the Centre.

Q1. As per the passage, what is/are the concerns regarding these rate cuts in the GST regime?

- (a) Companies will not get enough time to rework pricing strategies and replace existing market inventory, failing which they could face anti-profiteering action.
- (b) The GST Council's 28th meeting has significantly altered the course of the nearly 13-month-old tax regime in a negative way.
- (c) The decision to make the GSTN a 100% government-owned firm, instead of the present structure with 51% private ownership, explains neither how this will address data security concerns nor the impact on the Network's functional efficiency, which was the original stated intent for giving private players an upper hand in operations.
- (d) Both (a) and (c)

Show Answer

S1. Ans.(a) Sol. Refer paragraph 2 following lines "First, since the new rates are to kick in from July 27, companies may not have enough time to rework pricing strategies and replace existing market inventory, failing which they could face anti-profiteering action." There is no information about options b and c in the paragraph.

Q2. Which of the following is the most appropriate title for the passage above?

- (a) GST is a successful story of cooperative federalism
- (b) Impact on macro fiscal numbers
- (c) Stimulus mode: on GST rate cuts
- (d) Delivering the goods: on GST collections

Show Answer

S2. Ans.(c) Sol. The most appropriate title for the passage is "Stimulus mode: on GST rate cuts".

Q3. Which of the following statements is/are correct in context with the passage?

- (a) The government is keen to start matching tax credits claimed by businesses for inputs from suppliers.
- (b) In its second year, the GST Council must pursue a time-bound approach to execute plans already announced to ease taxpayers' woes, such as an e-wallet for exporters and a simpler return form.
- (c) The GST Council is one of the successes of what the government likes to call cooperative federalism, where the Centre and the states work together.
- (d) The rate cuts on products of mass use can be considered as the driving force to increase consumption before the festive season.

Show Answer

S3. Ans.(d) Sol. Refer paragraph 1 following lines ". Overall, industry and consumers may consider these rate cuts, largely on products and services of mass use, as a stimulus to drive consumption ahead of the festive season."

Paragraph 6

However, there are formidable obstacles. AI start-ups already offer some solutions, but the challenge lies in scaling these to cover the entire value chain, as NITI Aayog envisions. The first problem is data. Machine learning, the set of technologies used to create AI, is a data-guzzling monster. It takes reams of historical data as input, identifies the relationships among data elements, and makes predictions. More sophisticated forms of machine learning, like "deep learning", attempt to mimic the human brain. And even though they promise greater accuracy, they also need more data than what is required by traditional machine learning. Unfortunately, India has sparse data in sectors like agriculture, and this is already hampering AI-based businesses today.

Take the Bengaluru-based Intello Labs, for instance. This is a start-up which helps buyers at agricultural mandis evaluate the quality of grains, fruits or vegetables. In the normal course, a buyer determines visually how much wheat is destroyed by pests, and if foreign particles are present, before offering the farmer a price. But this process is subjective and prone to error. Visual inspection relies too much on the buyer's expertise, and corrupt middlemen may cheat farmers. So, a smartphone-based AI product, such as Intello Labs' grading app, can help. To develop this product, the Intello Labs team had to photograph 2.5 million agricultural samples. Experts then identified the contents of these photos — a laborious process called annotation. Next, the team wrote a deep learning algorithm, which was trained using the photos.

1. "Machine learning, the set of technologies used to create AI, is a data-guzzling monster." Why is the set of technologies termed as data-guzzling monsters?

- (a) AI is considered as a monster as it provides negative results.
- (b) It requires a huge amount of funds to create AI based technologies.
- (c) AI involves a laborious process called annotation.
- (d) Large amount of data is required as input to create AI.

Show Answer

Ans.(d) Sol. Guzzling means to swallow or imbibe. Large amount of historical data is required as input to identify relationships among data elements and then make predictions. Hence, option d is the correct choice.

Q2. As per the passage, what are the drawbacks of normal inspection of agricultural products?

- (a) Virtual inspection involves a laborious process called annotation.
- (b) It becomes challenging to inspect a large amount of grains physically.
- (c) To inspect visually, it requires expertise of buyer and middlemen may cheat farmers.
- (d) None is correct

Show Answer

S2. Ans.(c) Sol. Refer paragraph 2 following lines ". In the normal course, a buyer determines visually how much wheat is destroyed by pests, and if foreign particles are present, before offering the farmer a price. But this process is subjective and prone to error. Visual inspection relies too much on the buyer's expertise, and corrupt middlemen may cheat farmers."

Q3. Which of the following statements is/are correct in context with the passage?

- (a) The dream of a computer system with godlike powers and the wisdom to use them well is a theological construct, not a technological possibility.
- (b) The biggest agricultural data today resides with the government. It's entirely up to them to annotate it and make it usable.
- (c) Machine learning (a more precise term for AI) will certainly continue to surpass human capabilities in specific domains such as medical diagnosis and facial recognition.
- (d) People wonder whether instead of our controlling artificial intelligence, it will control us, turning us, in effect, into cyborgs.

Show Answer

3. Ans.(b) Sol. Only option (b) is correct here. Refer the following lines in paragraph 2 "The biggest agricultural data today resides with the government. It's entirely up to them to annotate it and make it usable," says Nishant Mishra, the chief technological officer of Intello Labs."

Paragraph 7

The Food Safety and Standards Authority of India has banned formaldehyde in fresh fish, while the International Agency for Research on Cancer labelled the chemical a carcinogen in 2004. The evidence the IARC relied on mainly consists of studies on workers in industries such as printing, textiles and embalming. Such workers inhale formaldehyde fumes, and the studies show high rates of nasopharyngeal and other cancers among them. But there is little evidence that formaldehyde causes cancer when ingested orally. A 1990 study by U.S. researchers estimated that humans consume 11 mg of the chemical through dietary sources every day. So, why is formaldehyde in fish a problem? For one thing, fresh fish should not have preservatives, and the presence of formaldehyde points to unscrupulous vendors trying to pass off stale catch as recent. Two, the lack of evidence linking ingested formaldehyde with cancer doesn't necessarily make the chemical safe.

At high doses, it causes gastric irritation. Plus, the lack of data could merely mean that not enough people are consuming formaldehyde regularly enough for its carcinogenic effects to show — the absence of evidence is not evidence of absence. There is a third complication. When certain marine fish are improperly frozen during transit, formaldehyde forms in them naturally. But this formaldehyde binds to the tissue, unlike added formaldehyde, which remains free. And so, measuring free formaldehyde versus bound formaldehyde can be one way of distinguishing a contaminant from a naturally occurring chemical. In this context, the Goan government must clarify its claim. Did the Goan FDA measure free formaldehyde or bound formaldehyde?

1. Which of the following can be inferred as the theme of the passage?

- (a) Shortcomings of Food and Drugs Administration.
- (b) Did the Goan FDA measure free formaldehyde or bound formaldehyde?
- (c) Nothing beats dynamite fishing for sheer efficiency.
- (d) Concerns over formaldehyde contamination of fish need to be addressed scientifically.

Ans.(d) Sol. The passage deals about concerns regarding formaldehyde contamination of fish and the need required to address these scientifically.

2. Which of the following statements is/are correct in context with the passage?

- (a) Fish markets over the last few days wore a desolate look following the controversy.
- (b) The researchers obtained five commonly used fishmeal products and subjected each one to a detailed genetic analysis.

(c) The discovery of fish food as a source of resistance genes migrating into oceanic bacteria is worrying, and the researchers say more work is needed to determine if these resistance traits can find their way into the human food chain.

(d) The Goa Government has not clarified the criteria on which they conducted the formaldehyde test.

Ans.(d) Sol. Refer paragraph 2 following lines "In this context, the Goan government must clarify its claim. Did the Goan FDA measure free formaldehyde or bound formaldehyde? If it measured the sum of both, on what basis did it conclude that the chemical came from natural sources? " hence it can be inferred that the Goa Government has not clarified its test.m

3. What does the author mean by the phrase "the absence of evidence is not evidence of absence" in context with the above passage?

(a) Goa Government has not provided the proper evidence of absence of Formaldehyde in fresh fish.

(b) There is a lack of evidence that inhaling formaldehyde fumes causes cancer.

(c) There is no evidence that consuming formaldehyde shows carcinogenic effects, but this does not prove that formaldehyde is absent in fishes.

(d) There is no evidence proving that enough people are fishes and thus no evidence of contamination of fish.

3. Ans.(c) Sol. The phrase "the absence of evidence is not evidence of absence" means There is no evidence that consuming formaldehyde shows carcinogenic effects, but this does not prove that formaldehyde is absent in fishes. We can infer this from following lines in paragraph 2 "At high doses, it causes gastric irritation. Plus, the lack of data could merely mean that not enough people are consuming formaldehyde regularly enough for its carcinogenic effects to show — the absence of evidence is not evidence of absence. "

Cat 2017 RC Passage

Do sports mega events like the summer Olympic Games benefit the host city economically? It depends, but the prospects are less than rosy. The trick is converting...several billion dollars in operating costs during the 17-day fiesta of the Games into a basis for long-term economic returns. These days, the summer Olympic Games themselves generate total revenue of \$4 billion to \$5 billion, but the lion's share of this goes to the International Olympics Committee, the National Olympics Committees and the International Sports Federations. Any economic benefit would have to flow from the value of the Games as an advertisement for the city, the new transportation and communications infrastructure that was created for the Games, or the ongoing use of the new facilities. Evidence suggests that the advertising effect is far from certain. The infrastructure benefit depends on the initial condition of the city and the effectiveness of the planning. The facilities benefit is dubious at best for buildings such as velodromes or natatoriums and problematic for 100,000-seat Olympic stadiums. The latter require a conversion plan for future use, the former are usually doomed to near vacancy. Hosting the summer Games generally requires 30-plus sports venues and dozens of training centers. Today, the Bird's Nest in Beijing sits virtually empty, while the Olympic Stadium in Sydney costs some \$30 million a year to operate.

Part of the problem is that Olympics planning takes place in a frenzied and time-pressured atmosphere of intense competition with the other prospective host cities — not optimal conditions for contemplating the future shape of an urban landscape. Another part of the problem is that urban land is generally scarce and growing scarcer. The new facilities often stand for decades or longer. Even if they have future use, are they the best use of precious urban real estate? Further, cities must consider the human cost. Residential areas often are razed and citizens relocated (without adequate preparation or compensation). Life is made more hectic and congested. There are, after all, other productive uses that can be made of vanishing fiscal resources.

Q1) The central point in the first paragraph is that the economic benefits of the Olympic Games

A) are shared equally among the three organising committees

B) accrue mostly through revenue from advertisements and ticket sales

C) accrue to host cities, if at all, only in the long term

D) are usually eroded by expenditure incurred by the host city

Q2) Sports facilities built for the Olympics are not fully utilised after the Games are over because

- A) their scale and the costs of operating them are large
- B) their location away from the city centre usually limits easy access.
- C) the authorities do not adapt them to local conditions.
- D) they become outdated having being built with little planning and under time pressure

Q3) The author feels that the Games place a burden on the host city for all of the following reasons EXCEPT that

- A) they divert scarce urban land from more productive uses
- B) they involve the demolition of residential structures to accommodate sports facilities and infrastructure
- C) the finances used to fund the Games could be better used for other purposes.
- D) the influx of visitors during the Games places a huge strain on the urban infrastructure.

Answers

- Q1: Option (C)
- Q2: Option (A)
- Q3: Option (D)

CAT 2017 RC

Scientists have long recognized the incredible diversity within a species. But they thought it reflected evolutionary changes that unfolded imperceptibly, over millions of years. That divergence between populations within a species was enforced, according to Ernst Mayr, the great evolutionary biologist of the 1940s, when a population was separated from the rest of the species by a mountain range or a desert, preventing breeding across the divide over geologic scales of time. Without the separation, gene flow was relentless. But as the separation persisted, the isolated population grew apart and speciation occurred. In the mid-1960s, the biologist Paul Ehrlich – author of *The Population Bomb* (1968) – and his Stanford University colleague Peter Raven challenged Mayr’s ideas about speciation. They had studied checkerspot butterflies living in the Jasper Ridge Biological Preserve in California, and it soon became clear that they were not examining a single population. Through years of capturing, marking and then recapturing the butterflies, they were able to prove that within the population, spread over just 50 acres of suitable checkerspot habitat, there were three groups that rarely interacted despite their very close proximity.

Among other ideas, Ehrlich and Raven argued in a now classic paper from 1969 that gene flow was not as predictable and ubiquitous as Mayr and his cohort maintained, and thus evolutionary divergence between neighbouring groups in a population was probably common. They also asserted that isolation and gene flow were less important to evolutionary divergence than natural selection (when factors such as mate choice, weather, disease or predation cause better-adapted individuals to survive and pass on their successful genetic traits). For example, Ehrlich and Raven suggested that, without the force of natural selection, an isolated population would remain unchanged and that, in other scenarios, natural selection could be strong enough to overpower gene flow...

Q1) Which of the following best sums up Ehrlich and Raven’s argument in their classic 1969 paper?

- A) Ernst Mayr was wrong in identifying physical separation as the cause of species diversity
- B) Checkerspot butterflies in the 50-acre Jasper Ridge Preserve formed three groups that rarely interacted with each other
- C) While a factor, isolation was not as important to speciation as natural selection
- D) Gene flow is less common and more erratic than Mayr and his colleagues claimed.

Q2) All of the following statements are true according to the passage EXCEPT

- A) Gene flow contributes to evolutionary divergence.

## Squat RCs



- B) The Population Bomb questioned dominant ideas about species diversity
- C) Evolutionary changes unfold imperceptibly over time.
- D) Checkerspot butterflies are known to exhibit speciation while living in close proximity

Q3) The author discusses Mayr, Ehrlich and Raven to demonstrate that

- A) evolution is a sensitive and controversial topic
- B) Ehrlich and Raven's ideas about evolutionary divergence are widely accepted by scientists.
- C) the causes of speciation are debated by scientists
- D) checkerspot butterflies offer the best example of Ehrlich and Raven's ideas about speciation

Answers

Q1: Option (C)

Q2: Option (B)

Q3: Option (C)