任务作业 3

Passage1: Biologists have long debated about whether egg production in birds is biologically highly costly, some theorizing that egg production is energetically or nutritionally demanding. Lack, however, suggested that clutch size—the number of eggs a bird lays per breeding cycle—is far below the potential limit of egg production. He suggested that clutch size had instead evolved in relation to the number of young that the parents could successfully rear. Subsequently, most studies focused on limitations operating during chick rearing, particularly among altricial species (species in which the parents feed their young in the nest). Lack later recognized that in precocial species (species in which young feed themselves), clutch size might be explained by different factors—the availability of food for egg-laying females, for example.

1. The passage suggests that biologists who say egg production in birds is biologically highly costly would agree that clutch size is determined primarily by

A. the nutritional and energy demands of egg production
B. the number of young that the parents can rear successfully
C. reproductive limitations operating during chick rearing
D. the availability of food for newly hatched chicks
E. the differences between altricial and precocial species

Consider each of the choices separately and select all that apply.

2. The passage suggests that Lack would agree with which of the following statements about factors affecting clutch size in birds?

A. In altricial species, clutch size is determined primarily by factors operating after eggs are laid.
B. In precocial species, clutch size is determined primarily by factors operating after eggs are laid.
C. In many bird species, clutch size generally remains well below the potential limit of egg production.

Passage2: For years, the leading theory for what caused the Younger Dryas (a dramatic reversal, about 12,900 years ago, in a global warming trend) was a release of water from Glacial Lake Agassiz. The theory posited that this meltwater flooded into the North Atlantic, lowering the salinity and intensity of surface waters enough to prevent them from sinking. Ocean currents were changed in such a way that northward transport of heat in the ocean diminished, and the North Atlantic regions plunged back into near-glacial conditions. However, evidence has emerged that the Younger Dryas began long before freshwater flooded the North Atlantic. Additionally, the temperature changes induced by a shutdown in the North Atlantic heat conveyor system are too small to explain the Younger Dryas.

1. The author of the passage implies which of the following about the release of water from glacial Lake Agassiz?

A. The notion that the release occurred has been challenged by more recent findings.
B. The release probably occurred much earlier than scientists have generally assumed.
C. The release would not have been sufficient to cause any temperature change in the North Atlantic.
D. The timing of the release is such that it probably did not trigger the onset of the Younger Dryas.
E. The release was probably unrelated to the global warming trend that was taking place.

2. The passage is primarily concerned with

A. presenting evidence that undermines an explanation
B. explaining the nature of a climatological phenomenon
C. questioning the timing of a particular event
D. discussing a new explanation for a phenomenon
E. suggesting revisions to a popular theory

Passage3: Some historians have recently challenged the "party period paradigm," the view, advanced by McCormick and others, that political parties—especially the two major parties—in the United States between the years 1835 and 1900 **evoked** extraordinary loyalty from voters and dominated political life. Voss-Hubbard cites the frequency of third-party eruptions during the period as evidence of popular antipathy to the two-party regime. He correctly credits third parties with helping generate the nineteenth century's historically high rates of voter turnout by forcing major parties to bolster supporters' allegiance, lest minor parties siphon off their votes, and with pushing policy demands that the major parties ignored. Formisano stresses the pervasive record of nonpartisan and anti-party governance at the local level, and women' s frequent participation in nineteenth-century public life, prior to their enfranchisement, in nonpartisan and antiparty ways as evidence of the limitations of the party period paradigm. Yet McCormick would deny that the existence of antiparty sentiment during the period undermined the paradigm, since he has always acknowledged the residual strength of such sentiment during the nineteenth century. In any case, the strength of the paradigm is its comparative thrust: the contrast it draws between the period in question and earlier and later political eras.

1. The primary purpose of the passage is to

A. correct a common misconception about a historical period
B. identify a feature of a historical period that has often been overlooked
C. challenge the validity of evidence used to support a claim
D. discuss certain challenges to a particular view
E. account for a particular feature of historical period

2. Select the sentence in the passage that describes how a historian might reply to attempts to call his theory into question.

3. In the context in which it appears, "**evoked**" most nearly means

A. elicited
B. recalled
C. cited
D. suggested
E. elaborated

Passage4: Most popularizations of science actually do more harm than good. Why? The single most important feature of scientific work is not this or that specific result. Instead, what science accomplishes--and what physics in particular accomplishes so beautifully--is the linking of diverse phenomena, the binding together of a myriad of predictions and explanations. What nearly all popularizations do is systematically undermine the progressive reasoning that links principles, conventions, experiments, and laws. Bad science writing splinters the most interesting feature of science, its long run of connected argumentation, into isolated metaphors that last just long enough to evoke a particular result: black holes are said to be huge funnels and quantum electron orbits are characterized as diffuse clouds.

Consider each of the choices separately and select all that apply.

1. The passage implies that most popular science writing

A. focuses on discrete results arrived at by scientific reasoning
B. spends more time describing scientific personalities than scientific processes
C. gives readers an incomplete view of the interrelatedness of scientific discovery

2. The author of the passage mentions black holes in order to provide

A. an instance of a factual error to which popularizations of science are prone
B. a metaphor for the emptiness typical of most popular science writing
C. a case in which a metaphor for a scientific process leads to a misunderstanding of that process
D. an example of the metaphorical explanations the author believes are typical of bad science writing
E. an illustration of a complex phenomenon for which most readers require simplified explanations

Passage5: In general, naive individuals appear more likely to learn from interaction with familiar rather than unfamiliar members of their species. Kaveliers and colleagues (2005) reported that naive laboratory-bred deer mice showed greater social learning of defensive responses to biting flies after observing responses of familiar members than after observing responses of unfamiliar members. Earlier, Valsecchi and colleagues (1996) reported striking differences in social learning of food preferences among Mongolian gerbils, depending on whether they were exposed to familiar or unfamiliar demonstrators. At the time, this was unexpected because Gaief and colleagues (1984) had previously reported no familiarity effect in Norway rats on social learning of food preferences. However, Gaief et al (1998) subsequently uncovered a significant familiarity effect that was evident when demonstrators are some hours before interacting with observers but absent when demonstrators are immediately before interacting.

1. The highlighted sentence serves to

A. provide an example of a phenomenon described in the first sentence
B. explain a difference described in the final sentence
C. supplement evidence introduced in the preceding sentence

2. Which of the following can be inferred about the report by Gaief and colleagues (1984) as it is described in the passage?

A. It introduced a concept that the report by Kaveliers and colleagues was intended to clarify.
B. It highlighted an inaccuracy in the report by Valsecchi and colleagues
C. It led to an incorrect supposition on the part of some scientists
D. It played an important role in developing an understanding of social learning between members of different species.
E. It suggested that the familiarity effect is stronger in some species than in others.