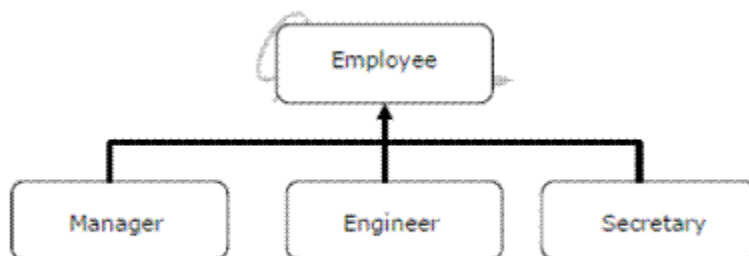


OOP

1. It is desired to design an object-oriented employee record system for a company. Each employee has a name, unique id and salary. Employees belong to different categories and their salary is determined by their category. The functions to get Name, getld and compute salary are required. Given the class hierarchy below, possible locations for these functions are: (GATE CS 2004) (gfg)

- i. getld is implemented in the superclass
- ii. getld is implemented in the subclass
- iii. getName is an abstract function in the superclass
- iv. getName is implemented in the superclass
- v. getName is implemented in the subclass
- vi. getSalary is an abstract function in the superclass
- vii. getSalary is implemented in the superclass
- viii. getSalary is implemented in the subclass



Choose the best design

- (a) (i), (iv), (vi), (viii)
- (b) (i), (iv), (vii)

(c) (i), (iii), (v), (vi), (viii)

(d) (ii), (v), (viii)

Answer (a)

Getid() and GetName() can be there in the base class as these functions have the same implementation for all subclasses. As the question says that every employee must have salary and salary is determined by their category, getSalary() must be there as an abstract function in base class. And all subclasses should implement salary according to their category.

2. Which one of the following are essential features of an object-oriented programming language? (GATE CS 2005) (gfg)

(i) Abstraction and encapsulation

(ii) Strictly-typedness

(iii) Type-safe property coupled with sub-type rule

(iv) Polymorphism in the presence of inheritance

(a) (i) and (ii) only

(b) (i) and (iv) only

(c) (i), (ii) and (iv) only

(d) (i), (iii) and (iv) only

Answer (b)

Abstraction, Encapsulation, Polymorphism and Inheritance are the essential features of a OOP Language

3) Total instances of an abstract class that can be created? (Int. Bit)

0

1

4

8

Answer: 0

4)

Under which pillar of OOPS do base class and derived class relationships come? (Int. Bit)

- a) Polymorphism
- b) Inheritance
- c) Encapsulation
- d) Abstraction

Answer: (b) Inheritance

5)

Virtual function should be _____. (Int. Bit)

- a) Public
- b) Private
- c) Protected
- d) default

Answer: (a) public

6)

What type of inheritance does single-level inheritance support (Int. Bit)

- a) Compile time
- b) Runtime
- c) Multiple inheritances
- d) Language independent

Answer: (b) runtime

7) Which of the following functions can be inherited from the base class? (Int. Bit)

- a) constructor
- b) Destructor
- c) Static
- d) None

Answer: (d) none

8)

Why is reusability a desirable feature?

Reduces compilation time

Decreases testing time

Lowers maintenance cost

None

Answer: (b) decreases testing time

9)

Choose whether True or False: The constructor function can be constant.

True

False

Depends on implementation

None

10) .

Choose the option below for which instance of the class cannot be created.

Anonymous class

Parent class

Nested class

Abstract class

11)

Choose the option below which can show polymorphism.

Overloading ||

Overloading <<

Overloading &&

Overloading +=

12)

Choose the option below which describes the overloading of functions.

Ad-hoc polymorphism

Virtual polymorphism

Pseudo polymorphism

Transient polymorphism

13)

How do encapsulation and abstraction differ?

Hiding and binding

Binding and hiding

Hiding and hiding

None

14)

Identify the feature using which, one object can interact with another object.

Message passing

Message reading

Data binding

Data transfer

15) Identify the pure object-oriented programming language among the following.

C++

SmallTalk

Java

Python

16)

Choose the option below which is used to implement late binding.

Friend function

Static function

Virtual function

Const function

17) Which is the correct syntax of inheritance? (Sanfoundry)

a) class base_classname :access derived_classname{ /*define class body*/ };

b) class derived_classname : access base_classname{ /*define class body*/ };

c) class derived_classname : base_classname{ /*define class body*/ };

d) `class base_classname : derived_classname{ /*define class body*/ };`

Answer: b

Explanation: Firstly, keyword class should come, followed by the derived class name. Colon is must followed by access in which base class has to be derived, followed by the base class name. And finally the body of class. Semicolon after the body is also must.

18) . Which among the following, for a pure OOP language, is true?

- a) The language should follow at least 1 feature of OOP
- b) The language must follow only 3 features of OOP
- c) The language must follow all the rules of OOP
- d) The language should follow 3 or more features of OOP

Answer: c

Explanation: The language must follow all the rules of OOP to be called a purely OOP language. Even if a single OOP feature is not followed, then it's known to be a partially OOP language.

19) The copy constructors can be used to _____

- a) Copy an object so that it can be passed to another primitive type variable
- b) Copy an object for type casting
- c) Copy an object so that it can be passed to a function
- d) Copy an object so that it can be passed to a class

Answer: c

Explanation: When an object is passed to a function, actually its copy is made in the function. To copy the values, copy constructor is used. Hence the object being passed and object being used in function are different.

20) What happens when an object is passed by reference?

- a) Destructor is called at end of function
- b) Destructor is called when called explicitly
- c) Destructor is not called
- d) Destructor is called when function is out of scope

Answer: c

Explanation: The destructor is never called in this situation. The concept is that when an object is passed by reference to the function, the constructor is not called, but only the main object will be used. Hence no destructor will be called at end of function.

21) How to overcome diamond problem?

- a) Using separate derived class
- b) Using virtual keyword with same name function
- c) Can't be done
- d) Using alias name

Answer: b

Explanation: To overcome the ambiguity and conflict we can use keyword virtual. This will help us to differentiate the functions with same name that came to last derived class in diamond problem.

22) Which class/set of classes can illustrate polymorphism in the following C++ code?

```
abstract class student
{
    public : int marks;

    calc_grade();
}

class topper:public student
{
    public : calc_grade()
    {
        return 10;
    }
};

class average:public student
{
    public : calc_grade()
    {
        return 20;
    }
};

class failed{ int marks; };
```

- a) Only class student and topper together can show polymorphism
- b) Only class student can show polymorphism
- c) Class failed should also inherit class student for this code to work for polymorphism
- d) All class student, topper and average together can show polymorphism

Answer: d

Explanation: Since Student class is abstract class and class topper and average are inheriting student, class topper and average must define the function named `calc_grade()` in abstract class. Since both the definition are different in those classes, `calc_grade()` will work in different way for same input from different objects. Hence it shows polymorphism.

23) Which among the following is not a necessary condition for constructors?

- a) Its name must be same as that of class
- b) It must not have any return type
- c) It must contain a definition body
- d) It can contains arguments

Answer: c

Explanation: Constructors are predefined implicitly, even if the programmer doesn't define any of them. Even if the programmer declares a constructor, it's not necessary that it must contain some definition.

24) If in multiple inheritance, class C inherits class B, and Class B inherits class A. In which sequence are their destructors called if an object of class C was declared?

- a) `~A()` then `~B()` then `~C()`
- b) `~C()` then `~A()` then `~B()`
- c) `~C()` then `~B()` then `~A()`
- d) `~B()` then `~C()` then `~A()`

Answer: c

Explanation: The destructors are always called in the reverse order of how the constructors were called. Here class A constructor would have been created first if Class C object is declared. Hence class A destructor is called at last.

25)

What is the output of the following Python code? (placement preparation)

```
class Animal:
    def speak(self):
        return "makes a sound"
class Dog(Animal):
    def speak(self):
        return "barks"
print(Dog().speak())
```

A

makes a sound

B

barks

C

SyntaxError

D

None

Answer: (b) barks

26)

When does the "diamond problem" occur in programming?

A

When multiple interfaces are implemented

B

When a class inherits from two classes with the same method

C

When multiple classes inherit from a single class

D

None of the above

Answer: (b)

27)

Given the following Java code, which principle is demonstrated?

```
interface Flyable {  
    void fly();  
}  
  
class Bird implements Flyable {  
    public void fly() {  
        System.out.println("Bird flies");  
    }  
}  
  
class Airplane implements Flyable {  
    public void fly() {  
        System.out.println("Airplane flies");  
    }  
}
```

A

Inheritance

B

Encapsulation

C

Polymorphism

D

Abstraction

Answer: (c) polymorphism

28) Which of the following language supports polymorphism but not the classes?

- a. C++ programming language
- b. Java programming language
- c. Ada programming language
- d. C# programming language

Answer: c. Ada programming language

Explanation: It is a programming language that disapproves of the concept of polymorphism but supports the concept of classes. It is an object-based language. So, it does not follow the Object-oriented programming concepts.

29)

After refactoring a class hierarchy, a method call on a subclass object executes the superclass method instead of the overridden method.

What is the likely cause?

A

The overridden method in the subclass is marked as private

B

The method call is statically bound

C

The subclass method does not correctly override the superclass method due to a signature mismatch

D

None of the above

Answer: (C)

30) What will be the output of the following interface and class implementation in Java?

```
interface Speakable {  
    default void speak() {  
        System.out.println("Hello, World!");  
    }  
}  
  
class Speaker implements Speakable {  
    public static void main(String[] args) {  
        new Speaker().speak();  
    }  
}
```

A

Hello, World!

B

No output, as interfaces cannot have default methods with a body

C

A compilation error as the method is not overridden in the class

D

None of the above

Answer: (A)

VARC

Directions for questions 1 to 5: Read the passage given below and answer the questions that follow it.

Examining the process of development of archaeology in India by any scholar outside the domain of government bodies was initiated about four decades back by Abu Imam. Very few scholars since then have taken any interest in this rather infertile branch of research.

Dilip Chakravarti was the only other Indian scholar who undertook a detailed analysis of this process of development in 1988. Apparently, he must have felt that a large chunk of time was not taken care of in this book and hence in 2003 he came out with yet another book to not only cover the history since 1947 but also examine this in the context of development in the neighboring third world countries.

Upinder Singh studied with Chakravarti and as such may have developed interest in the history of archaeology. Singh is an acclaimed teacher of history and is astute and extremely balanced in her classroom deliberations. In this excellent piece of research she lives up to her image.

Tracing the history of development of any academic discipline one can usually identify three distinct phases, which may be termed as the formative, descriptive and analytical.

It is also true that as one progresses from one phase to the next, one considers it almost as a self-appointed right to criticise the earlier works – as if one needs to legitimise the reason for seeking a change. Singh not only refrains from any such attempt but also sets a clear goal for herself.

In the preface she writes, “A large part of this book focuses unabashedly on individuals and their scholarly contributions. This is because of my conviction that individuals count and make a difference; they can make or break disciplines and institutions, more so at a time when these are in their fragile, embryonic stage”. This conviction of the author, in one swift stroke, pushes history of archaeology from the infertile zone to a matter of primary importance.

The author starts her delineation with a chapter titled, “From antiquarianism to archaeology”, wherein she notes how surveyors, collectors or adventurers were all clubbed together as one during the phase from 1750 A.D. to 1830 A.D. Even the word archaeology was not thought as important or even used.

It is during the latter half of the 19th Century that we come across early archaeological writings by government officials. Interest generated by the newly established Asiatic Society concentrating on texts, coins and sculptures brought about appreciable changes in these writings.

The establishment of the Archaeological Survey of India in 1861 brought about a sea change towards systematically surveying and also recording structures spread out all over the vast country. For decades the field was entirely dominated by Alexander Cunningham and a handful of assistants trained by him. With a gap of five years from 1866 to 1871, Cunningham continued to work till 1886. This, indeed, was a long period and the foundations of archaeological investigations in this country, as such, were basically laid down by his efforts. Singh brings out, quite succinctly, how these otherwise praiseworthy investigations had an undercurrent of denying any credit to native researchers. The description of the early native scholars like Ram Raz, P.C. Mukharji, Rajendralala Mitra and others including Sir Sayyid Ahmed Khan makes very interesting reading.

The final chapter “Arcaeology, sites and monuments” describes how the Archaeological Survey finally decided that the antiquities need not be transported to England. Earlier the then prevailing attitude was that the natives did not care for their own past and hence, as their colonial masters, England had a right to take away important antiquities for better conservation.

The nationalist political movements emerging in the 19th Century also started constructing India's past for their purpose. Singh demonstrates how, at the same time, the British perception of India's past had always divided monuments into such categories as "Hindu" and "Mohammedan". They did not think, "..... it conceivable that Indian princes could transcend sectarianism when it came to historical monuments in their realms."

"The fact that they often did is indicated by the contributions made by Maharaja of Dhar towards conservation work at the medieval site of Mandu, the steps taken by Nizam of Hyderabad to protect the Buddhist frescoes of Ajanta, the money given by Scindia for the restoration of Jain temples in the Gwalior fortress and most eloquently by the long-standing concern of the Bhopal durbar for Sanchi". "All through" the author has shown that archaeology in India ran parallel to available texts, including those of Chinese travellers; these parallel streams have always taken and also given findings of their respective fields to each other.

Unfortunately, those concerns of archaeology which cannot be referred to any available texts, namely palaeolithic, mesolithic, neolithic and chalcolithic cultural periods (which incidentally cover four fifths of India's past) has basically remained grossly neglected during this formative period of the history of archaeology of India.

1. The Nizam of Hyderabad is quoted as an example to:

- a) show the interest evinced by rulers to protect monuments.
- b) show that the Indian rulers rose above religious affinities when it meant protecting monuments
- c) show that Hyderabad was an important state in the archaeological history of India.
- d) show that the Nizam was interested in art and architecture.

2. In what way is Singh different from the other authors writing on the history of an academic subject?

- a) She has a distinct purpose for herself.
- b) She focusses on individuals more than others have done.
- c) She has not followed the usual pattern of such books which describe the history in three phases.
- d) She does not denounce the earlier works whereas others usually do so.

3. What is the significant contribution of the author of the book towards the history of archaeology according to the writer?

- a) Her efforts have pushed the subject from an area of neglect to one of significance.
- b) She is the first Indian authoress to create an interest in the subject in others.
- c) She has made the first authentic book on the history of archaeology.
- d) She has excellent reputation as a teacher and hence her writings are held in high esteem.

4. The Archaeological Survey of India allowed objects of antiquity to be taken to England because

- a) Indians did not have enough knowledge about preserving antiquities.
- b) the English were thought to have a great regard for the past.
- c) Indians were thought to be insensitive to their past history.
- d) the previous archaeologists were all

English

5. Which one among the following is 'NOT TRUE' according to the passage?

- a) Archaeology in India used the writings of foreign travellers.
- b) The author of the book reviewed is a teacher of archaeology.
- c) Certain important issues of archaeology were not given due importance during initial stages of the history of archaeology in India.

d) The word 'archaeology' was not used in connection with researches on the past till the 18th century in India.

Directions for questions 6 to 10: Read the passage given below and answer the questions that follow it.

In the past, credit for telling the tale of Aladdin has often gone to Antoine Galland . . . the first European translator of . . . Arabian Nights [which] started as a series of translations of an incomplete manuscript of a medieval Arabic story collection. . . But, though those tales were of medieval origin, Aladdin may be a more recent invention. Scholars have not found a manuscript of the story that predates the version published in 1712 by Galland, who wrote in his diary that he first heard the tale from a Syrian storyteller from Aleppo named Hanna Diyab . . .

Despite the fantastical elements of the story, scholars now think the main character may actually be based on a real person's real experiences. . . . Though Galland never credited Diyab in his published translations of the Arabian Nights stories, Diyab wrote something of his own: a travelogue penned in the mid-18th century. In it, he recalls telling Galland the story of Aladdin [and] describes his own hard-knocks upbringing and the way he marveled at the extravagance of Versailles. The descriptions he uses were very similar to the descriptions of the lavish palace that ended up in Galland's version of the Aladdin story. [Therefore, author Paulo Lemos] Horta believes that "Aladdin might be the young Arab Maronite from Aleppo, marveling at the jewels and riches of Versailles." . . .

For 300 years, scholars thought that the rags-to-riches story of Aladdin might have been inspired by the plots of French fairy tales that came out around the same time, or that the story was invented in that 18th century period as a byproduct of French Orientalism, a fascination with stereotypical exotic Middle Eastern luxuries that was prevalent then. The idea that Diyab might have based it on his own life — the experiences of a Middle Eastern man encountering the French, not vice-versa — flips the script. [According to Horta,] "Diyab was ideally placed to embody the overlapping world of East and West, blending the storytelling traditions of his homeland with his youthful observations of the wonder of 18th-century France." . . .

To the scholars who study the tale, its narrative drama isn't the only reason storytellers keep finding reason to return to Aladdin. It reflects not only "a history of the French and the Middle East, but also [a story about] Middle Easterners coming to Paris and that speaks to our world today," as Horta puts it. "The day Diyab told the story of Aladdin to Galland, there were riots due to food shortages during the winter and spring of 1708 to 1709, and Diyab was sensitive to those people in a way that Galland is not. When you read this diary, you see this solidarity among the Arabs who were in Paris at the time. . . . There is little in the writings of Galland that would suggest that he was capable of developing a character like Aladdin with sympathy, but Diyab's memoir reveals a narrator adept at capturing the distinctive psychology of a young protagonist, as well as recognizing the kinds of injustices and opportunities that can transform the path of any youthful adventurer."

6. All of the following serve as evidence for the character of Aladdin being based on Hanna Diyab EXCEPT:

- A. Diyab's cosmopolitanism and cross-cultural experience.
- B. Diyab's humble origins and class struggles, as recounted in his travelogue.
- C. Diyab's description of the wealth of Versailles in his travelogue.
- D. Diyab's narration of the original story to Galland.

7. The author of the passage is most likely to agree with which of the following explanations for the origins of the story of Aladdin?

- A. Galland derived the story of Aladdin from Diyab's travelogue in which he recounts his fascination with the wealth of Versailles.
- B. The story of Aladdin has its origins in an undiscovered, incomplete manuscript of a medieval Arabic collection of stories.
- C. Basing it on his own life experiences, Diyab transmitted the story of Aladdin to Galland who included it in Arabian Nights.
- D. Galland received the story of Aladdin from Diyab who, in turn, found it in an incomplete medieval manuscript.

8. Which of the following, if true, would invalidate the inversion that the phrase "flips the script" refers to?

- A. Diyab's travelogue described the affluence of the French city of Bordeaux, instead of Versailles.
- B. The French fairy tales of the eighteenth century did not have rags-to-riches plot lines like that of the tale of Aladdin.
- C. The description of opulence in Hanna Diyab's and Antoine Galland's narratives bore no resemblance to each other.
- D. Galland acknowledged in the published translations of Arabian Nights that he heard the story of Aladdin from Diyab.

9. Which of the following is the primary reason for why storytellers are still fascinated by the story of Aladdin?

- A. The traveller's experience that inspired the tale of Aladdin resonates even today.
- B. The tale of Aladdin documents the history of Europe and Middle East.
- C. The archetype of the rags-to-riches story of Aladdin makes it popular even today.
- D. The story of Aladdin is evidence of the eighteenth century French Orientalist

10. Which of the following does not contribute to the passage's claim about the authorship of Aladdin?

- A. The narrative sensibility of Diyab's travelogue.
- B. The depiction of the affluence of Versailles in Diyab's travelogue.
- C. Galland's acknowledgment of Diyab in his diary.
- D. The story-line of many French fairy tales of the 18th century.

Directions for questions 11 to 18: Read the passage given below and answer the questions that follow it.

It can be argued that much consumer dissatisfaction with marketing strategies arises from an inability to aim advertising at only the likely buyers of a given product.

There are three groups of consumers who are affected by the marketing process. First, there is the market segment—people who need the commodity in question. Second, there is the program target—people in the market segment with the "best fit" characteristics for a specific product. Lots of people may need trousers, but only a few qualify as likely buyers of very expensive designer

trousers. Finally, there is the program audience—all people who are actually exposed to the marketing program without regard to whether they need or want the product.

These three groups are rarely identical. An exception occurs occasionally in cases where customers for a particular industrial product may be few and easily identifiable. Such customers, all sharing a particular need, are likely to form a meaningful target, for example, all companies with a particular application of the product in question, such as high-speed fillers of bottles at breweries. In such circumstances, direct selling (marketing that reaches only the program target) is likely to be economically justified, and highly specialized trade media exist to expose members of the program target—and only members of the program target—to the marketing program.

Most consumer-goods markets are significantly different. Typically, there are many rather than few potential customers. Each represents a relatively small percentage of potential sales. Rarely do members of a particular market segment group themselves neatly into a meaningful program target. There are substantial differences among consumers with similar demographic characteristics. Even with all the past decade's advances in information technology, direct selling of consumer goods is rare, and mass marketing—a marketing approach that aims at a wide audience—remains the only economically feasible mode. Unfortunately, there are few media that allow the marketer to direct a marketing program exclusively to the program target. Inevitably, people get exposed to a great deal of marketing for products in which they have no interest and so they become annoyed.

11. The passage suggests which of the following about highly specialized trade media?

- (A) They should be used only when direct selling is not economically feasible.
- (B) They can be used to exclude from the program audience people who are not part of the program target.
- (C) They are used only for very expensive products.
- (D) They are rarely used in the implementation of marketing programs for industrial products.
- (E) They are used only when direct selling has not reached the appropriate market segment.

12. According to the passage, most consumer-goods markets share which of the following characteristics?

- I. Customers who differ significantly from each other
- II. Large numbers of potential customers
- III. Customers who each represent a small percentage of potential sales

- (A) I only
- (B) II only
- (C) I and II only
- (D) II and III only
- (E) I, II, and III

13. The passage suggests which of the following about direct selling?

- (A) It is used in the marketing of most industrial products.
- (B) It is often used in cases where there is a large program target.
- (C) It is not economically feasible for most marketing programs.
- (D) It is used only for products for which there are many potential customers.
- (E) It is less successful at directing a marketing program to the target audience than are other marketing approaches.

14. The author mentions “trousers” most likely in order to

- (A) make a comparison between the program target and the program audience
- (B) emphasize the similarities between the market segment and the program target
- (C) provide an example of the way three groups of consumers are affected by a marketing program

(D) clarify the distinction between the market segment and the program target

(E) introduce the concept of the program audience

15. Which of the following best exemplifies the situation described in the last two sentences of the passage?

(A) A product suitable for women age 21-30 is marketed at meetings attended only by potential customers.

(B) A company develops a new product and must develop an advertising campaign to create a market for it.

(C) An idea for a specialized product remains unexplored because media exposure of the product to its few potential customers would be too expensive.

(D) A new product is developed and marketers collect demographic data on potential consumers before developing a specific advertising campaign.

(E) A product suitable for men age 60 and over is advertised in a magazine read by adults of all ages.

16. The passage suggests that which of the following is true about the marketing of industrial products ?

(A) The market segment and program target are identical.

(B) Mass marketing is the only feasible way of advertising such products.

(C) The marketing program cannot be directed specifically to the program target.

(D) More customers would be needed to justify the expense of direct selling.

(E) The program audience would necessarily be made up of potential customers, regardless of the marketing approach that was used.

17. The passage supports which of the following statements about demographic characteristics and marketing?

(A) Demographic research is of no use in determining how successful a product will be with a particular group of consumers.

(B) A program audience is usually composed of people with similar demographic characteristics.

(C) Psychological factors are more important than demographic factors in defining a market segments.

(D) Consumers with similar demographic characteristics do not necessarily form a meaningful program target.

(E) Collecting demographic data is the first step that marketers take in designing a marketing program.

18. It can be inferred from the passage that which of the following is true for most consumer-goods markets?

(A) The program audience is smaller than the market segment.

(B) The program audience and the market segment are usually identical.

(C) The market segment and the program target are usually identical.

(D) The program target is larger than the market segment

(E) The program target and the program audience are not usually identical

19. A law requiring companies to offer employees unpaid time off to care for their children will harm the economic competitiveness of our nation's businesses. Companies must be free to set their own employment policies without mandated parental-leave regulations.

Which of the following, if true, would most seriously weaken the conclusion of the argument above?

(A) A parental-leave law will serve to strengthen the family as a social institution in this country. (B) Many businesses in this country already offer employees some form of parental leave.

(C) Some of the countries with the most economically competitive businesses have strong parental-leave regulations.

(D) Only companies with one hundred or more employees would be subject to the proposed parental-leave law.

(E) In most polls, a majority of citizens say they favor passage of a parental-leave law.

20. Investing in real estate would be a profitable venture at this time. A survey in House magazine revealed that 85% of the magazine's readers are planning to buy a second home over the next few years. A study of the real estate industry, however, revealed that the current supply of homes could only provide for 65% of that demand each year.

Which of the following, if true, reveals a weakness in the evidence cited above?

(A) Real estate is a highly labor-intensive business.

(B) Home builders are not evenly distributed across the country.

(C) The number of people who want second homes has been increasing each year for the past ten years.

(D) Readers of House magazine are more likely than most people to want second homes.

(E) House magazine includes articles about owning a second home as well as articles about building a second home.

21. Which of the following, if true, would undermine the validity of the investment advice in the paragraph above?

(A) Some home owners are satisfied with only one home.

(B) About half of the people who buy homes are investing in their first home.

(C) About half of the people who buy homes have to take out a mortgage to do so.

(D) Only a quarter of the homes that are built are sold within the first two weeks.

(E) Only a quarter of those who claim that they want a second home actually end up purchasing one.

Directions for questions 22-30: Given a paragraph and four choices, you are asked to choose the option that summarizes the paragraph best.

22. Totalitarianism is not always operated by diktat. It can be insinuated by suggestion and replication. Dissent does not have to be banned if it is countered by orchestrated mass promo rallies and hypnotizing oratory. Despotism does not need to turn Hitlerian; all they need to do is to let the Reich chemistry work. Self-regulation and self-censorship will click in. Then any dissident who wants to retain his intellectual liberty will find himself thwarted by the general drift of society rather than by active persecution.

A. Totalitarianism is generally operated by undermining freedom of expression through active persecution and censorship.

B. Hypnotizing oratory and promo rallies can effectively counter dissent and lead to persecution of the masses.

C. Self-regulation and self-censorship in societies stifle freedom of expression.

D. Intellectual liberty does not have to be repressed by authority if there are self-appointed vigilantes to bully it into silence.

23. Modern history abounds with violence fueled by apocalyptic myths, not always explicitly religious in nature. The aim of the Jacobin terror in revolutionary France was the creation of a modern state. If the violent suppression of the peasant revolt in the Vendée is included, the casualties ran into the hundreds of thousands. The myths that possessed these anarchists in their campaigns of

assassination were secular myths of social transformation. Lenin avowedly followed the Jacobin example when he used the Cheka to create a modern state in Russia. One of the factors that distinguished Nazism and fascism from conventional tyrannies was the belief that a new society could be fashioned by the systematic use of terror. Violent jihadism has more in common with these modern totalitarian movements than is commonly supposed.

- A. Violent jihadism is justified on the secular myth of social transformation, rather than the idea of religious apocalypse.
- B. The myth of social transformation has underpinned many totalitarian movements in modern history, and violent jihadism too exploits this.
- C. Although it is believed that violence is fueled by religion, the reality is that it is unleashed on the premise of the creation of a modern state.
- D. Modern history illustrates that it is a myth that societies can be transformed by the systematic use of terror.

24. When a language seems especially telegraphic (that is, requiring less to be actually said to put a sentence together), it is usually because enough adults learnt it at a certain stage in its history that, given the difficulty of learning a new language after childhood, it became a kind of stripped-down "schoolroom" version of itself. Because all languages, are, to some extent, busier than they need to be, this streamlining leaves the language thoroughly complex and nuanced, just lighter on the bric-a-brac that so many languages pant under. For example, Indonesian, one of the most economical languages in the world, is a first language to only one in four of its speakers; the language has been used for many centuries as a lingua franca in a vast region, imposed on speakers of several hundred languages. This means that while other languages can be like overgrown lawns, Indonesian's grammar has been regularly mowed, such that especially the colloquial forms are tidier.

- A. When a language has been used for many centuries as the lingua franca in a vast region, it becomes especially telegraphic.
- B. Languages become less "busy" and more nuanced when imposed over long periods of time on new people, who learn it as adults.
- C. When more adults who are non-native speakers are forced, over time, to learn a language, its colloquial forms become cryptic.
- D. In languages that have been spoken for centuries over vast regions, time and repetition wear words out, and what wears away is often a nugget of meaning

25. Nineteenth-century liberals recognized that democracy comes in various forms, and dreaded the version advocated by Rousseau, in which an inspired lawgiver interprets and implements the will of the people. Nowadays such fears are dismissed as elitist. But the old-fashioned liberals grasped a vital truth: popular government has no necessary connection with the freedom of individuals or minorities. Of course, liberals today will say this can be remedied by installing the rule of constitutional rights. Such systems are fragile, however, and count for nothing when large sections of society are indifferent or actively hostile to liberal values. Where this is the case, democracy means not much more than the tyranny of the majority.

- A. Inspired lawgivers in liberal democracies are better equipped to interpret and implement the will of the people than in illiberal democracies.

- B. Nineteenth-century liberals believed that democracy means not much more than the tyranny of the majority.
- C. Constitutional rights are fragile and ineffective in ensuring protection of the freedom of individuals in any democracy.
- D. Popular governments in illiberal democracies use the power of the majority to clamp down on the freedom of minorities.

26. Cheapness and its cinematic markers, such as hand-held camera work and low or high-contrast light, aren't themselves guarantors of a tone of artistic authenticity. In fact, they're often misused by filmmakers short of inspiration as badges of sincerity that take the place of actual artistry. The theatrical realism of many older, ostensibly classic movies have dated terribly and reflect the very exclusions and compromises of the system that produced them. Only the ingenious exertions and inventions of a slender minority of great filmmakers could circumvent and override them. Yet, critics fetishize the styles of studio-era movies and take them for an enduring and immutable aesthetic standard – as if, with an appreciation of Shakespeare came a comparable fixation on lesser Elizabethans and a disdain for latter-day dramatists for not writing in iambic pentameter.

- A. Nostalgia for movies as they were made in the past converges to nostalgic exaltation of their production methods.
- B. Rather than imitating the styles of studio-era movies in a bid to achieve artistic authenticity, filmmakers need to focus on inventive ideas and realistic themes.
- C. Only the brilliance and resourcefulness of small minority of great filmmakers could overcome the hurdles posed by budget constraints in studio-era movies.
- D. The veneration of the styles and production methods of low-budget movies of the studio-era as the ideal aesthetic standard is misguided.

27. A recent study, published in the Proceedings of the National Academy of Sciences, has shown that high-level mathematical reasoning rests on a set of brain areas that do not overlap with the classical left-hemisphere regions involved in verbal semantics. Instead, all domains of mathematics tested (algebra, analysis, geometry, and topology) recruit a bilateral network, of prefrontal, parietal, and inferior temporal regions, which is also activated when mathematicians or non-mathematicians recognize and manipulate numbers mentally. These results suggest that high-level mathematical thinking makes minimal use of language areas and instead recruits circuits initially involved in space and number. This result may explain why knowledge of number and space, during early childhood, predicts mathematical achievement.

- A. High-level mathematical expertise and basic number sense share common roots in a non-linguistic brain circuit.
- B. Regardless of domain- algebra, analysis, geometry or topology- mathematicians recognize and manipulate numbers mentally.
- C. Classic left-hemisphere regions involved in verbal semantics are not as well developed in mathematicians as the brain areas involving number and space.
- D. The mathematical achievement of an individual can be predicted based on his knowledge of number, space and language during childhood.

28. Since the Holocaust is an axial event of modern history, its misunderstanding turns our minds in the wrong direction. When the Holocaust is blamed on the modern state, the weakening of state

authority appears salutary. On the political right, the erosion of state power by international capitalism seems natural; on the political left, rudderless revolutions portray themselves as virtuous. In the 21st century, anarchical protest movements join in a friendly tussle with global oligarchy, in which neither side can be hurt since both see the real enemy as the state. Both the left and the right tend to fear order rather than its destruction or absence.

- A. The Holocaust was a result of an all-powerful state, which forced order through fear and crushed dissent from both the political right and the political left.
- B. Following the Holocaust, the power of the state has been systematically eroded by international capitalism and rudderless revolutions, as both the right and the left fear order more than its absence.
- C. The weakened state is the fundamental reason for disorder in the world, be it anarchical uprisings, global oligarchy or the Holocaust.
- D. The Holocaust is not to be blamed on the modern state, but on the tussle between the political right and the political left.

29. Journalism may never have been as public-spirited an enterprise as editors and writers liked to think it was. Yet the myth mattered. It pushed journalism to challenge power; it made journalists loath to bend to the whims of their audience; it provided a crucial sense of detachment. The new generation of media giants that dominates journalism today has no patience for the old ethos of detachment. It's not that these companies don't have aspirations toward journalistic greatness. BuzzFeed, Vice, and the Huffington Post invest in excellent reporting and employ first-rate journalists—and they have produced some of the most memorable pieces of investigative journalism in this century. But in the pursuit of audience, they have allowed the endless feedback loop of the web to shape their editorial sensibility and determine their editorial investments.

- A. The belief that editorial insight can be engineered with the help of audience feedback loops has eroded the very nature of journalism.
- B. The ethos of detachment and social-consciousness that marked journalism earlier has been progressively eroded by the relentless pursuit of the audience by media giants.
- C. By playing to the audience, media giants that have engulfed journalism today have shattered the myth of detachment and compromised editorial sensibility.
- D. The steady rise in the role of media giants in journalism and their strategic pursuit of the audience has had a damaging effect on the quality of journalism and its ethos.

30. Much has rightly been made of the problem of political polarisation, but not nearly as much has been said about the problem of political homogenisation. Both are toxic to public discourse. While the former makes for awkward conversations at the family dinner table, the latter buries difficult conversations. Where agreement is sought without a decent discussion, opinion corridors form, limiting the range of ideas tolerated in public discourse. Where all views are not heard in appropriate discussion, the only alternative is inappropriate discussion. And populist rhetoric cuts through this muffled discussion culture like a hot knife through butter, as the pent-up need to be heard surfaces.

- A. Political ambivalence is as harmful to public discourse as political polarisation.
- B. By subduing discussion, political homogenisation can lead to the rise of populism.
- C. When opinion across the political spectrum is not heard, public discourse is crippled.
- D. Political homogenisation is as much a cause for rise of populism as political polarisation

SOLUTIONS:

1. B

2. D

3. A

4. C

5. B

6. D

7. C

8. C

9. A

10. D

11. B

12. E

13. C

14. D

15. E

16. A

17. D

18. E

19. C

20. D

21. E

22. D

23. B

24. B

25. D

26. D

27. A

28. C

29. C

30. B