

## **READING COMPREHENSION – 4**

**Read the following passages and answer the questions that follow:**

### **Passage – 1**

Modern architecture has been criticized for emphasizing practical and technical issues at the expense of aesthetic concerns. The high-rise buildings constructed throughout the industrialized world in the 1960s and 1970s provide ample evidence that cost-efficiency and utility have become the overriding concerns of the modern architect. However, Otto Wagner's seminal text on modern architecture, first published in Germany in 1896, indicates that the failure of modern architecture cannot be blamed on the ideals of its founders.

Wagner's *Modern Architecture* called for a new style based on modern technologies and models of construction. He insisted that there could be no return to traditional, preindustrial models; only by accepting wholeheartedly the political and technological revolutions of the nineteenth century could the architect establish the forms appropriate to a modern, urban society. "All modern creation," Wagner wrote, "must correspond to the new materials and demands of the present...must illustrate our own better, democratic, self-confident, ideal nature," and must incorporate the new "colossal technical and scientific achievements" of the age. This would indeed seem to be the basis of a purely materialist definition of architecture, a prototype for the simplistic form-follows-function dogma that opponents have identified as the intellectual basis of modern architecture.

But the picture was more complex, for Wagner was always careful to distinguish between art and engineering. Ultimately, he envisaged the architect developing the skills of the engineer without losing the powers of aesthetic judgment that Wagner felt were unique to the artist. "Since the engineer is seldom a born artist and the architect must learn as a rule to be an engineer, architects will in time succeed in extending their influence into the realm occupied by the engineers, so that legitimate aesthetic demands can be met in a satisfactory way." In this symbiotic relationship essential to Modernism, art was to exercise the controlling influence.

No other prospect was imaginable for Wagner, who was firmly rooted as a designer and, indeed, as a teacher in the Classical tradition. The apparent inconsistency of a confessed Classicist advising against the mechanical imitation of historical models and arguing for new forms appropriate to the modern age created exactly the tension that made Wagner's writings and buildings so interesting. While he justified, for example, the choice of a circular ground plan for churches in terms of optimal sight-lines and the technology of the gasometer, the true inspiration was derived from the centralized churches of the Italian Renaissance. He acknowledged as rationalist that there was no way back to the social and technological conditions that had produced the work of Michelangelo or Fischer von Erlach, but he recognized his emotional attachment to the great works of the Italian Renaissance and Austrian Baroque.

1. Which one of the following best expresses the main idea of the passage?
  - (A) Modern architecture has been criticized for emphasizing practical and technical issues and for failing to focus on aesthetic concerns.
  - (B) Critics have failed to take into account the technological innovations and aesthetic features that architects have incorporated into modern buildings.
  - (C) Wagner's *Modern Architecture* provides architects with a chronicle of the origins of modern architecture.
  - (D) Wagner's *Modern Architecture* indicates that the founders of modern architecture did not believe that practical issues should supersede the aesthetic concerns of the past.
2. According to the passage, Wagner asserts which one of the following about the roles of architect and engineer?
  - (A) The architect should make decision about aesthetic issues and leave decision about technical matters to the engineers.
  - (B) The engineer has often developed the powers of aesthetic judgment previously thought to be unique to the architect.
  - (C) The judgment of the engineer should be as important as the judgment of the architect when decisions are made about aesthetic issues.
  - (D) The architect should acquire the knowledge of technical matters typically held by the engineer.
3. The author of the passage states which one of the following about the concerns of modern architecture?
  - (A) Cost-efficiency, utility, and aesthetic demands are the primary concerns of the modern architect.
  - (B) Practical issues supersede aesthetic concerns in the design of many modern buildings.
  - (C) Cost-efficiency is more important to the modern architects than are other practical concerns.
  - (D) The design of many new buildings suggests that modern architects are still inspired by architectural forms of the past.
4. The author mentions Wagner's choice of a "circular ground plan for churches" most likely in order to
  - (A) provide an example of the kinds of technological innovations Wagner introduced into modern architecture
  - (B) provide an example of Wagner's dismissal of historical forms from Italian Renaissance
  - (C) provide evidence of the tension between Wagner's commitment to modern technology and to the Classical tradition
  - (D) provide evidence of Wagner's tendency to imitate Italian Renaissance and Austrian Baroque models

## PASSAGE – 2

In order to explain the socioeconomic achievement, in the face of disadvantages due to racial discrimination, of Chinese and Japanese immigration to the United States and their descendants, sociologists have typically applied either culturally based or structurally based theories—but never both together. To use an economic metaphor, culturally based explanations assert the importance of the supply side of the labor market, emphasizing the qualities immigrant groups bring with them for competition in the United States labor market. Such explanations reflect a human-capital perspective in which status attainment is seen as a result of individuals' ability to generate resources. Structurally based explanations, on the other hand, examine the market condition of the immigrants' host society, particularly its discriminatory practices and their impact on the status attainment process of immigrant groups. In the economic metaphor, structural explanations assert the importance of the demand side of the labor market.

In order to understand the socioeconomic mobility of Chinese and Japanese immigrants and their descendants, only an analysis of supply-side and demand-side factors together, in the context of historical events, will suffice. On the cultural or supply side, differences in immigration pattern and family formation resulted in different rates of socioeconomic achievement for Chinese and Japanese immigrants. For various reasons, Chinese immigrants remained sojourners and did not (except for urban merchants) establish families. They were also hampered by ethnic conflict in the labor market. Japanese immigrants, on the other hand, were less constrained, made the transition from sojourner to settler within the first two decades of immigration, and left low-wage labor to establish small businesses based on a household mode of production. Chinese sojourners without families were more vulnerable to demoralization, whereas Japanese immigrants faced societal hostility with the emotional resources provided by a stable family life. Once Chinese immigrants began to establish nuclear families and produce a second generation, instituting household production similar to that established by Japanese immigrants, their socioeconomic attainment soon paralleled that of Japanese immigrants and their descendants.

On the structural or demand side, changes in institutional constraints, immigration laws, labor markets, and societal hostility were rooted in the dynamics of capitalist economic development. Early capitalist development generated a demand for low-wage labor that could not be fulfilled. Early Chinese and Japanese emigration was a response to this demand. In an advanced capitalist economy, the demand for immigrant labor is more differentiated: skilled professional and technical labor fills empty positions in the primary labor market and, with the traditional unskilled low-wage labor, creates two immigrant streams. The high levels of education attained by the descendants of Chinese and Japanese immigrants and their concentration in strategic states such as California paved the way for the movement of the second generation into the expanding primary labor market in the advanced capitalist economy that existed after the Second World War.

5. Which one of the following can best be described as a supply-side element in the labor market, as such elements are explained in the passage?
  - (A) concentration of small businesses in a given geographical area
  - (B) need for workers with varying degrees of skill
  - (C) high value placed by immigrants on work
  - (D) expansion of the primary labor market
6. It can be inferred that the author's analysis of the socioeconomic achievement of Chinese and Japanese immigrants and their descendants differs from that of most sociologists primarily in that most sociologists
  - (A) address the effects of the interaction of causal factors
  - (B) exclude the factor of a developing capitalist economy
  - (C) do not apply an economic metaphor
  - (D) focus on a single type of theoretical explanation
7. It can be inferred that which one of the following was an element of the experience of both Chinese and Japanese immigrants in the United States?
  - (A) initial status as sojourners
  - (B) slow accumulation of capital
  - (C) quick transition from laborer to manager
  - (D) rapid establishment of nuclear families
8. The author is primarily concerned with
  - (A) advancing a synthesis of approaches to an issue
  - (B) challenging a tentative answer to a question
  - (C) evaluating the soundness of theories
  - (D) resolving the differences between schools of thought

### **PASSAGE – 3**

How does the brain know when carbohydrates have been or should be consumed? The answer to this question is not known, but one element in the explanation seems to be the neurotransmitter serotonin, one of a class of chemical mediators that may be released from a presynaptic neuron and that cause the transmission of a nerve impulse across a synapse to an adjacent postsynaptic neuron. In general, it has been found that drugs that selectively facilitate serotonin-mediated neurotransmission tend to cause weight loss, whereas drugs that block serotonin-mediated transmission often have the opposite effect: they often induce carbohydrate craving and consequent weight gain.

Serotonin is a derivative of tryptophan, an amino acid that is normally present at low levels in the bloodstream. The rate of conversion is affected by the proportion of carbohydrates in an individual's diet: carbohydrates stimulate the secretion of insulin, which facilitates the uptake of most amino acids into peripheral tissues, such as muscles. Blood tryptophan levels, however, are unaffected by insulin, so the proportion of tryptophan in the blood relative to the other amino acids increases when carbohydrates are consumed. Since tryptophan competes with other amino acids for transport across the blood-brain barrier into the brain, insulin secretion indirectly speeds tryptophan's entry into the central nervous system where, in a special cluster of neurons, it is converted into serotonin.

The level of serotonin in the brain in turn affects the amount of carbohydrate an individual chooses to eat. Rats that are allowed to choose among synthetic foods containing different proportions of carbohydrate and protein will normally alternate between foods containing mostly protein and those containing mostly carbohydrate. However, if rats are given drugs that enhance the effect of serotonin, the rats' carbohydrate intake is reduced. On the other hand, when rats are given drugs that interrupt serotonin-mediated neurotransmission, their brains fail to respond when carbohydrates are eaten, so the desire for them persists.

In human beings a serotoninlike drug, *d*-fenfluramine (which release serotonin into brain synapses and then prolong its action by blocking its reabsorption into the presynaptic neuron), selectively suppresses carbohydrate snacking (and its associated weight gain) in people who crave carbohydrates. In contrast, drugs that block serotonin-mediated transmission or that interact with neurotransmitters other than serotonin have the opposite effect: they often induce carbohydrate craving and subsequent weight gain. People who crave carbohydrates report feeling refreshed and invigorated after eating a carbohydrate-rich meal (which would be expected to increase brain serotonin levels), in contrast, those who do not crave carbohydrates become sleepy following a high-carbohydrate meal. These findings suggest that serotonin has other effects that may be useful indicators of serotonin levels in human beings.

9. The term "rate" refers to the rate at which
  - (A) serotonin is produced from tryptophan
  - (B) carbohydrates are taken into the body
  - (C) carbohydrates stimulate the secretion of insulin
  - (D) insulin facilitates the uptake of amino acids into peripheral tissues
10. It can be inferred that a person is likely to crave carbohydrates when
  - (A) the amount of insulin produced is too high
  - (B) the amount of serotonin in the brain is too low
  - (C) more tryptophan than usual crosses the blood-brain barrier
  - (D) neurotransmission by neurotransmitters other than serotonin is interrupted
11. The information in the passage indicates that if human beings were given a drug that inhibits the action of serotonin, which one of the following might be expected to occur?
  - (A) Subjects would probably show a preference for carbohydrate-rich snacks rather than protein-rich snacks.
  - (B) Subjects would probably become sleepy after eating a carbohydrate-rich meal.
  - (C) Subjects would be more likely to lose weight than before they took the drug.
  - (D) Subjects' blood tryptophan levels would probably increase.
12. The author's primary purpose is to
  - (A) defend a point of view
  - (B) correct a misconception
  - (C) assess conflicting evidence
  - (D) provide information that helps explain a phenomenon

### **PASSAGE – 4**

A major tenet of the neurosciences has been that all neurons (nerve cells) in the brains of vertebrate animals are formed early in development. An adult vertebrate, it was believed, must make do with a fixed number of neurons: those lost through disease or injury are not replaced, and adult learning takes place not through generation of new cells but through modification of connections among existing ones.

However, new evidence for neurogenesis (the birth of new neurons) has come from the study of canary song. Young canaries and other songbirds learn to sing much as humans learn to speak, by imitating models provided by their elders. Several weeks after birth, a young bird produces its first rudimentary attempts at singing; over the next few months the song becomes more structured and stable, reaching a fully developed state by the time the bird

approaches its first breeding season. But this repertoire of song is not permanently learned. After each breeding season, during late summer and fall, the bird loses mastery of its developed “vocabulary,” and its song becomes as unstable as that of a juvenile bird. During the following winter and spring, however, the canary acquires new songs, and by the next breeding season it has developed an entirely new repertoire.

Recent neurological research into this learning and relearning process has shown that the two most important regions of the canary’s brain related to the learning of songs actually vary in size at different times of the year. In the spring, when the bird’s song is highly developed and uniform, the regions are roughly twice as large as they are in the fall. Further experiments tracing individual nerve cells within these regions have shown that the number of neurons drops by about 38 percent after the breeding season, but by the following breeding season, new ones have been generated to replace them. A possible explanation for this continual replacement of nerve cells may have to do with the canary’s relatively long life span and the requirements of flight. Its brain would have to be substantially larger and heavier than might be feasible for flying if it had to carry all the brain cells needed to process and retain all the information gathered over a lifetime.

Although the idea of neurogenesis in the adult mammalian brain is still not generally accepted, these findings might help uncover a mechanism that would enable the human brain to repair itself through neurogenesis. Whether such replacement of neurons would disrupt complex learning processes or long-term memory is not known, but songbird research challenges scientists to identify the genes or hormones that orchestrate neurogenesis in the young human brain and to learn how to activate them in the adult brain.

13. Information in the passage suggests that the author would most likely regard which one of the following as LEAST important in future research on neurogenesis in humans?
  - (A) research on possible similarities between the neurological structures of humans and canaries
  - (B) studies that compare the ratio of brain weight to body weight in canaries to that in humans
  - (C) neurological research on the genes or hormones that activate neurogenesis in the brain of human infants
  - (D) studies about the ways in which long-term memory functions in the human brain
14. The use of the word “vocabulary” serves primarily to
  - (A) demonstrate the presence of a rudimentary grammatical structure in canary song
  - (B) point out a similarity between the patterned groupings of sounds in a canary’s song and the syllabic structures of words
  - (C) stress the stability and uniformity of canary’s song throughout its lifetime
  - (D) suggest a similarity between the possession of a repertoire of words among humans and a repertoire of songs among canaries
15. According to the passage, which one of the following factors may help account for the occurrence of neurogenesis in canaries?
  - (A) the life span of the average canary
  - (B) the process by which canaries learn songs
  - (C) the frequency of canary breeding seasons
  - (D) the number of regions in the canary brain related to song learning
16. It can be inferred from the passage that the author would most likely describe the current understanding of neurogenesis as
  - (A) exhaustive
  - (B) progressive
  - (C) incomplete
  - (D) antiquated

### **PASSAGE – 5**

For too many years scholars of African American history focused on the harm done by slaveholders and by the institution of slavery, rather than on what Africans in the United States were able to accomplish despite the effects of that institution. In *MyneOwnne Ground*, T. H. Breen and Stephen Innes contribute significantly to a recent, welcome shift from a white-centered to a black-centered inquiry into the role of African Americans in the American colonial period. Breen and Innes focus not on slaves, but on a small group of freed indentured servants in Northampton County (in the Chesapeake Bay region of Virginia) who, according to the authors, maintained their freedom, secured property, and interacted with persons of different races and economic standing from 1620 through the 1670s. African Americans living on the Chesapeake were to some extent disadvantaged; say Breen and Innes, but this did not preclude the attainment of status roughly equal to that of certain white planters of the area. Continuously acting within black social networks, and forming economic relationships with white planters, local Native Americans, indentured servants, and white settlers outside the gentry class, the free African Americans of Northampton County held their own in the rough-hewn world of Chesapeake Bay.

The authors emphasize that in this early period, when the percentage of African Americans in any given Chesapeake county was still no more than 10 percent of the population, very little was predetermined so far as racial



status or race relations were concerned. By schooling themselves in the local legal process and by working prodigiously on the land, African Americans acquired property, established families, and warded off contentious white neighbors. Breen and Innes do acknowledge that political power on the Chesapeake was asymmetrically distributed among black and white residents. However, they underemphasize much evidence that customary law, only gradually embodied in statutory law, was closing in on free African Americans well before the 1670s: during the 1660s, when the proportion of African Americans in Virginia increased dramatically, Virginia tightened a law regulating interracial relations (1662) and enacted a statute prohibiting baptism from altering slave status (1667). Anthony Johnson, a leader in the community of free African Americans in the Chesapeake Bay region, sold the land he had cultivated for more than twenty years and moved north with his family around 1665, an action that the authors attribute to a search for “fresh, more productive land.” But the answer to why the Johnsons left that area where they had labored so long may lie in their realization that their white neighbors were already beginning the transition from a largely white indentured labor force to reliance on a largely black slave labor force, and that the institution of slavery was threatening their descendants’ chances for freedom and success in Virginia.

17. The author of the passage objects to many scholarly studies of African American history for which one of the following reasons?  
(A) Their emphases have been on statutory law rather than on customary law.  
(B) They have ignored specific historical situations and personages in favor of broad interpretations.  
(C) They have failed to focus to a sufficient extent on the achievements of African Americans.  
(D) They have underemphasized the economic system that was the basis of the institution of slavery.
18. The author of the passage most probably refers to Anthony Johnson and his family in order to  
(A) provide a specific example of the potential shortcomings of Breen and Innes’ interpretation of historical events  
(B) provide a specific example of relevant data overlooked by Breen and Innes in their discussion of historical events  
(C) provide a specific example of data that Breen and Innes might profitably have used in proving their thesis  
(D) argue that the standard interpretation of historical events is superior to Breen and Innes’ revisionist interpretation
19. The attitude of the author of the passage toward Breen and Innes’ study can best be described as one of  
(A) condescending dismissal  
(B) wholehearted acceptance  
(C) contentious challenge  
(D) qualified approval

## **PASSAGE – 6**

Late nineteenth-century books about the French artist Watteau (1684-1721) betray a curious blind spot: more than any single artist before or since, Watteau provided his age with an influential image of itself, and nineteenth-century writers accepted this image as genuine. This was largely due to the enterprise of Watteau’s friends who, soon after his death, organized the printing of engraved reproductions of the great bulk of his work—both his paintings and his drawings—so that Watteau’s total artistic output became and continued to be more accessible than that of any other artist until the twentieth-century advent of art monographs illustrated with photographs. These engravings presented aristocratic (and would-be aristocratic) eighteenth-century French society with an image of itself that was highly acceptable and widely imitate by other artists, however little relationship that image bore to reality. By 1884, the bicentenary of Watteau’s birth, it was standard practice for biographers to refer to him as “the personification of the witty and amiable eighteenth century.”

In fact, Watteau saw little enough of that “witty and amiable” century for which so much nostalgia was generally felt between about 1870 and 1920, a period during which enthusiasm for the artist reached its peak. The eighteenth century’s first decades, the period of his artistic activity, were fairly calamitous ones. During his short life, France was almost continually at war: his native region was overrun with foreign troops, and Paris was threatened by siege and by a rampaging army rabble. The dreadful winter of 1709, the year of Watteau’s first Paris successes, was marked by military defeat and a disastrous famine.

Most of Watteau’s nineteenth-century admirers simply ignored the grim background of the works they found so lyrical and charming. Those who took the inconvenient historical facts into consideration did so only in order to refute the widely held deterministic view that the content and style of an artist’s work were absolutely dictated by heredity and environment. (For Watteau admirers, such determinism was unthinkable: the artist was born in a Flemish town only six years after it first became part of France, yet Watteau was quintessentially French. As one patriotic French biographer put it, “In Dresden, Potsdam, and Berlin I have never come across a Watteau without feeling refreshed by a breath of native air.” Even such writers, however, persisted in according Watteau’s canvases a privileged status as representative “personifications” of the eighteenth century. The discrepancy between historical fact and artistic vision, useful in refuting the extreme deterministic position, merely forced these writers to seek a new formula that allowed them to preserve the desired identity between image and reality, this time a rather suspiciously psychic one: Watteau did not record the society he knew, but rather “foresaw” a society that developed shortly after his death.

20. Which one of the following best describes the overall organization of the passage?
- (A) A particular phenomenon is discussed, the reasons that it is atypical are put forward, and these reasons are evaluated and refined.
  - (B) An assumption is made, results deriving from it are compared with what is known to be true, and the assumption is finally rejected as counterfactual.
  - (C) A particular viewpoint is explained, its shortcomings are discussed, and its persistence in the face of these is noted.
  - (D) A general characterization is offered, examples supporting it are introduced, and its special applicability to a particular group is asserted.
21. The passage suggests that late-nineteenth-century biographers of Watteau considered the eighteenth century to be “witty and amiable” in large part because of
- (A) what they saw as Watteau’s typical eighteenth-century talent for transcending reality through art
  - (B) their opposition to the determinism that dominated late-nineteenth-century French thought
  - (C) a lack of access to historical source material concerning the early eighteenth century in France
  - (D) the nature of the image conveyed by the works of Watteau and his many imitators
22. The phrase “curious blind spot” can best be interpreted as referring to which one of the following?
- (A) some biographers’ persistent inability to appreciate what the author considers a particularly admirable equality
  - (B) certain writers’ surprising lack of awareness of what the author considers an obvious discrepancy
  - (C) some writers’ willful refusal to evaluate properly what the author considers a valuable source of information about the past
  - (D) an inexplicable tendency on the part of some writers to undervalue an artist whom the author considers extremely influential
23. The author asserts that during the period of Watteau’s artistic activity French society was experiencing which one of the following?
- (A) widespread social upheaval caused by war
  - (B) a pervasive sense of nostalgia for an idealized past
  - (C) increased domination of public affairs by a powerful aristocracy
  - (D) rapid adoption by the middle classes of aristocratic manners and life-style
24. The information given in the passage suggests that which one of the following principles accurately characterizes the relationship between an artist’s work and the impact it is likely to have on a society?
- (A) An artist’s recognition by society is most directly determined by the degree to which his or her works are perceived as lyrical and charming.
  - (B) An artist will have the greatest influence on a society that values art particularly highly.
  - (C) The works of an artist who captures the true and essential nature of a given society will probably have a great impact on that society.
  - (D) The degree of influence an artist’s vision will have on a society is conditional on the visibility of the artist’s work.

**Answer Key:**

1. D	2. D	3. B	4. C	5. C	6. D	7. A	8. A
9. A	10. B	11. A	12. D	13. B	14. D	15. A	16. C
17. C 18. A	19. D	20. C	21. D	22. B	23. A	24. D	