

# **Practice Verbal Reasoning 1**

## *Questions*

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**Number of Items: 40**

**Time Allowed: 60 minutes**

**DIRECTIONS:** There are seven passages in the Verbal Reasoning test. Each passage is followed by several questions. After reading a passage, select the one best answer to each question. If you are not certain of an answer, eliminate the alternatives that you know to be incorrect then select an answer from the remaining alternatives. Indicate your selection by clicking on the answer bubble next to it.

**Passage I**

Scientists have long made two claims about their discipline: that it requires freedom to flourish and progress and that it is inherently international, transcending the divisions of national and political boundaries. These are related claims since the internationalism of science lies partly in the freedom to communicate openly with all of one's scientific colleagues, wherever they may live. Though these ideals have not always been attained, especially in the area of international scientific relations, they have served as normative assumptions for most scientists.

Before this, challenges to these assumptions came primarily from religious quarters—such as Galileo's trial by the Catholic Church and the controversy surrounding Darwin's *Descent of Man*. But in this century, they have come largely from political and ideological pressures growing out of the increasing importance of science to social and national life. The close link between science and national governments, largely spurred by scientific contributions to warfare and defense in World War I and even more decisively in World War II, facilitated large and expensive projects, such as the particle accelerator and space programs, which would have been difficult to fund through private sources. But the connection also channeled the direction of scientific research increasingly toward military defense; scientific knowledge had become closely linked with national security and could no longer be so freely communicated to all scientific colleagues without any restrictions. One of the most interesting and complex challenges to science's normative assumptions involves the diverse developments related to science that have arisen in Russia since the Bolshevik Revolution of 1917. The new Soviet state based itself on science in a way no previous government ever had. Yet Soviet scientists occupied an ambiguous position from the beginning, for while the government encouraged and generally supported scientific research, it simultaneously imposed significant restrictions on science and scientists.

The Soviets strongly emphasized planned science, sparking criticism from many Western scientists who charged that planned science could not be free since the choice of investigation had been taken from the researcher and that without such freedom science could not progress. A strong nationalistic emphasis on science led at times to the dismissal of all non-Russian scientific work as irrelevant to Soviet science. One leading Soviet philosopher wrote, in 1940, that "it is impossible to speak of a world science as something single, whole and continuous." A 1973 article in *Literatunaya Gazeta*, a Soviet publication, insisted that: "World science is based upon national schools, so the weakening of one or another national school inevitably leads to stagnation in the development of world science." Scientific internationalism was further challenged in a more profound way by the assertion that there are two kinds of science—a socialist science and a capitalistic, or bourgeois, science—each developing out of the particular economic organization of the society in which it arises. According to the Soviet regime, socialist science must be consistent with, and in fact grows out of the Marxism-Leninism political ideology. Soviet scientists were exhorted to build a genuinely socialist science rather than to conduct an impartial search for nature's truths.

Toward these ends, the Soviet regime curtailed many of the freedoms considered essential for the advancement of science. Where scientific work conflicted with political criteria, the work was often disrupted. During the Stalinist purges of the 1930s, many Soviet scientists simply disappeared. In the 1970s, Soviet scientists who were part of the *refusenik* movement lost their

jobs, were barred from access to scientific resources, were shunned by colleagues, and were even imprisoned. The government even sought to erase their previous contributions by removing their books and articles from libraries and by excising citations to their work from the scientific literature. Some scientific theories or fields, such as relativity, and genetics, were criticized, or even abolished, because they deviated from Marxism-Leninism.

Of course, hindrances to scientific freedom and scientific internationalism in this century are not limited to the Soviet Union. In the 1930s a nationalistic science promoted in Nazi Germany proclaimed the existence of a *Deutsche Physik*, which the Nazis distinguished from “Jewish physics.” More recently, scientists in South American countries, especially Argentina, were fired from their positions or arrested for political reasons. But the Soviet Union constitutes the longest-lived instance of a seemingly contradictory situation which couples a strong dependence on, and support for, science with stringent restrictions on that very scientific activity.

1. In stating that scientific knowledge had become closely linked with national security and could no longer be freely communicated, the author implies that
  - A) expensive research projects such as the particle accelerator and space programs apply technology that can also be applied toward projects relating to national security
  - B) governments have subordinated the ideal of scientific freedom to national security interests
  - C) without free access to new scientific knowledge, scientists in different countries are less able to communicate with one another
  - D) governments should de-emphasize scientific projects related to military defense and emphasize instead research that can be shared freely within the international scientific community
  
2. The author quotes an article from *Literatunaya Gazeta* most probably in order to:
  - A) illustrate the general sentiment among members of the international scientific community during the time period
  - B) underscore the Soviet emphasis on the notion of a national science
  - C) show the disparity of views within the Soviet intellectual community regarding the proper role of science
  - D) underscore the point that only those notions about science that conformed to the Marxist-Leninist ideal were sanctioned by the Soviet government
  
3. Which of the following statements is LEAST supported by the passage?
  - A) Intervention by the Soviet government in scientific research reached its zenith during the Stalinist era of the 1930s.
  - B) Soviet attempts to suppress scientific freedom during the 1970s resembled those made by the Argentinean government.
  - C) Like the Soviet regime, the Nazi regime promoted the notion of a national science and attempted to distinguish it from other science.
  - D) Western scientists opposed the notion of planned science on the grounds that it restricts the scientist's freedom.

4. Which of the following best characterizes the “ambiguous position” in which Soviet scientists were placed during the decades that followed the Bolshevik Revolution?
- A) The Soviet government demanded that their research result in scientific progress, although funding was insufficient to accomplish this goal.
  - B) They were exhorted to strive toward scientific advancements, while at the same time the freedoms necessary to make such advancements were restricted.
  - C) While required to direct their research entirely toward military defense, most advancements in this field were being made by non-Soviet scientists with whom the Soviet scientists were prohibited contact.
  - D) They were encouraged to collaborate with Soviet colleagues but were prohibited from any discourse with scientists from other countries.
5. Which of the following does the author identify as a fundamental cause of twentieth-century challenges to scientific freedom?
- A) the increasing role that science has played in national life
  - B) religious intolerance, particularly in the Soviet Union and in Nazi Germany
  - C) the Bolshevik Revolution of 1917 and the Marxism-Leninism political ideology
  - D) increasing disloyalty on the part of scientists to their governments
6. The author’s primary purpose in the passage is to
- A) examine the events leading up to the suppression of the Soviet refusenik movement of the 1970s
  - B) define and dispel the notion of a national science as promulgated by the post-revolution Soviet regime
  - C) describe specific attempts by the modern Soviet regime to suppress scientific freedom
  - D) examine the major twentieth-century challenges to the normative assumptions that science requires freedom and that it is inherently international

## Passage II

While the organization of society can reduce the dangers of disease, trade and urbanization, with their consequent problems of sanitation and pollution, can also exacerbate such dangers. Epidemiological phenomena can be seen most starkly in the colonization of the New World by Europeans. As is well known, European settlement wreaked havoc on the native population by exposing it to Old World diseases. Even within the white settlements of North America, however, it was urbanization (without adequate sanitation) accompanied by international trade that brought forth repeated epidemics of yellow fever and cholera, and, later, the enduring epidemic of tuberculosis. Even in the mid-twentieth century, during the brief calm between the polio and AIDS epidemics when communicable disease seemed anachronistic, epidemic health risks associated with carcinogens from polluted air threatened the industrialized world.

To the economist, efforts to combat these risks are at least partially public goods. The benefits from public goods are indivisible among beneficiaries. A sole private purchaser of health care would give others in society a “free ride” with respect to the benefits obtained. For example,

one's vaccination protects another from infection. Conversely, the costs of failing to pay for such goods may be borne by others. To market theorists, such goods are legitimate objects of governmental intervention in the market. While the theory of public goods helps explain aspects of public health law and assists in fitting it into modern economic theory, it omits a critical point. Ill health is not a mere byproduct of economic activity. It is an inevitable concomitant of human existence. As a result, wherever there is human society, there will be public health. Every society has to face the risks of disease. And because it must, every society searches to make disease, like mortality, comprehensible within the context of the society's own particular culture, theology, or science. In this sense, health care is public not only because its benefits are indivisible and threats to it arise from factors outside of the individual but also because communal life gives individuals the cultural context in which to understand it.

Governments typically have assumed an active role with respect to health care, acting as if their role were obligatory. How governments have fulfilled that duty has varied throughout time and across societies, according not only to the wealth and scientific sophistication of the culture but also to its fundamental values—because health is defined in part by a community's belief system, public health measures will necessarily reflect cultural norms and values. In highly religious societies, the preservation and regulation of health is intermingled with theological considerations. In our more secular era, governments rely on less theistic approaches, such as investment in medical research.

Those who criticize the United States government today for not providing health care to all citizens equate the provision of health care with insurance coverage for the costs of medical expenses. By this standard, seventeenth- and eighteenth-century America lacked any significant conception of public health law. However, despite the general paucity of bureaucratic organization in pre-industrial America, the vast extent of health regulation and provision stands out as remarkable. Of course the public role in the protection and regulation of eighteenth-century health was carried out in ways quite different from those today. Organizations responsible for health regulation were less stable than modern bureaucracies, tending to appear in crises and wither away in periods of calm. The focus was on epidemics which were seen as unnatural and warranting a response, not to the many endemic and chronic conditions which were accepted as part and parcel of daily life. Additionally, and not surprisingly, religious influence was significant, especially in the seventeenth century. Finally, in an era which lacked sharp demarcations between private and governmental bodies, many public responsibilities were carried out by what we would now consider private associations. Nevertheless, the extent of public health regulation long before the dawn of the welfare state is remarkable and suggests that the founding generation's assumptions about the relationship between government and health were more complex than is commonly assumed.

7. In the passage, the author's primary purpose is to:
- A) present and evaluate different views regarding the proper role of government in the provision of health care
  - B) argue for the expansion of the United States government's role regarding the provision of health care
  - C) trace the historical development of the United States government's role in the provision of health care

- D) discuss the societal causes of epidemic disease and propose a policy for addressing those causes
8. Based upon the information in the passage, the author would agree that health care is inherently a public concern for all of the following reasons EXCEPT:
- A) The benefits of health care are indivisible among its beneficiaries.
  - B) The health of an individual person is affected in part by societal factors.
  - C) Governments have typically acted as if they have a duty to provide health care.
  - D) Disease is fully comprehended only within the context of one's particular culture.
9. Which of the following best characterizes the market theorists' argument for public health care as viewed by the author of the passage?
- A) theoretically sound
  - B) empirically unsupported
  - C) politically biased
  - D) cogent but inadequate
10. Among the following statements about the United States government's role in the provision of health care, which finds the least support in the passage?
- A) The government today addresses health concerns that formerly were not considered serious enough to warrant government involvement.
  - B) Many public health care functions were served by the private sector.
  - C) Philosophical considerations play a less significant role today in the formulation of public health care policies than in previous centuries.
  - D) Public health care today is guided largely by secular rather than religious values.
11. Which of the following best expresses the author's point of contention with "those who criticize the United States government for not providing health care to all citizens"?
- A) Their standard for measuring such provision is too narrow.
  - B) They underestimate the role that insurance plays in the provision of health care today.
  - C) They fail to recognize that government plays a more significant role today in health care than in previous eras.
  - D) They misunderstand the intent of the founding generation with respect to the proper role of the government in the area of health care.
12. Which of the following best expresses the main point of the last paragraph in the passage?
- A) The government's role in health care has not expanded over time to the extent that many critics have asserted.
  - B) The government should limit its involvement in health care to epidemiological problems.
  - C) Health problems plaguing pre-industrial America resulted largely from inadequate public health care.
  - D) History suggests that the United States government has properly played a significant role in provision of health care.

**Passage III**

The metaphysical first principles can never fail of exemplification. We can never catch the actual world taking a holiday from their sway. However, for the discovery of metaphysics, the method of pinning down thought to the strict systematization of detailed discrimination, already effected by antecedent observation, breaks down. This collapse of the method of rigid empiricism is not confined to metaphysics. It occurs whenever we seek the larger generalities. In natural science this rigid method is the Baconian method of induction, a method which, if consistently pursued, would have left science where it found it.

What Bacon omitted was the play of free imagination, controlled by the requirements of coherence and logic. The true method of discovery is like the flight of an airplane. It starts from the ground of particular observation; it makes a flight in the thin air of imaginative generalization; and it again lands for renewed observation rendered acute by rational interpretation. The reason for the success of this method of imaginative rationalization is that when the method of discrimination fails, factors which are constantly present may yet be obsessed under the influence of imaginative thought. Such thought supplies the connections which the direct observation lacks, it can even play with inconsistency, and can thus throw light on the consistent, and persistent, elements in experience by comparison with what in imagination is inconsistent with them. The negative judgment is the peak of mentality.

But the conditions for the success of imaginative construction must be rigidly adhered to. In the first place, this construction must have its origin in the generalization of particular factors discerned in particular topics of human interest, for example in physics, or in physiology, or in psychology, or in aesthetics, or in ethical beliefs, or in sociology, or in languages conceived as store-houses of human experience.

In this way the prime requisite, that there shall be some important and extended application of the imaginative construct, is secured; the success of the imaginative experiment is always to be tested by the applicability of its results beyond the restricted locus from which it originates. In default of such expanded application, a generalization started from physics, for instance, remains merely an alternative expression of notions applicable to physics; a successful philosophic generalization will find applications in fields of experience beyond physics. It will enlighten observation in those remote fields so that in examinations of the process of illustration, universal principles can be discerned which, in the absence of the imaginative generalization, would be obscured by their persistent particular exemplification.

13. Which of the following does the author believe is lacking in a strict use of the inductive method in the natural sciences?
  - A) the use of generalizations
  - B) emphasis on systematic and discriminatory laboratory techniques
  - C) a rigid adherence to the use of hypothesis
  - D) a free imagination, controlled by logic and coherence
  
14. The factor which makes imaginative rationalization successful is
  - A) exclusive reliance upon detailed discriminatory observation

- B) its basis in logical consistencies and persistencies
  - C) its ability to illuminate the ostensibly inconsistent and disconnected present factors
  - D) its capacity to account for irrational interpretations
15. Which of the following could characterize an application of the “true method of discovery” to an investigation of variant behavior of deaf infants?
- I. analysis of the intonation patterns of the sounds the infants themselves make
  - II. quantitative observation of motor response to very loud noise
  - III. concluding that persistently unpredictable behavior is characteristic of deaf infants and thus dropping what appears to be fruitless investigation in favor of more promising areas of research
  - IV. elimination from the sample of infants who do not respond same way as the control group
  - V. analysis of response patterns of deaf adults who have learned sign language and comparison of the results with the responses of the infants
- A) I only
  - B) II and III
  - C) I, II, and V
  - D) III and IV
16. According to the author, one can measure the success of the imaginative construct by
- A) assessing its utility as an alternative expression of its original application
  - B) showing how strictly it adhered to the Baconian method of induction
  - C) discriminating analysis of the observed data which the imaginative construct attempts to account for
  - D) its applicability to areas other than the restricted one of its origin
17. The author believes a successful philosophical generalization should be able to
- A) explain particular facts in systematic detail
  - B) discern universal principles obscured by particular facts
  - C) summarize coherently and logically the results of persistent consistent experimental phenomena
  - D) validate the strict application of the Baconian method of induction

#### Passage IV

Although accounts differ as to which of two men—Hiawatha or Degandawida—played a more significant role in founding the Iroquois League of Indian nations, it is generally agreed among anthropologists and historians that the principles on which the League was founded were formulated by Degandawida, while Hiawatha served as his advocate. Because the League proposed by Degandawida was a radical step in an unfamiliar direction for the warring and fiercely-autonomous Iroquois nations, acceptance required that the League be tied to familiar Iroquois customs and institutions.

Degandawida's philosophy that warring nations could lay down their arms and become partners was embraced by the Iroquois only by his associating this notion with the Iroquois custom by which the families of slain warriors adopted war prisoners into the tribe to prevent the tribe's male population from dwindling. Degandawida also used unquestioned social institutions as symbols. He compared the League to the traditional Iroquois clan in which several families share a "Longhouse," likening the Great Council, comprised of representatives from each member nation, to the ever-burning Council Fire of the Longhouse. To ease the Iroquois' fear of losing national identity, Degandawida assigned a meaningful League title as well as specific duties to each nation. The powerful Mohawks, for example, were given the title "Keepers of the Eastern Door" and were given a council veto, while the Onondagas, who were centrally-positioned geographically, were made "Fire Keepers" or perpetual hosts. Degandawida also replicated the power structure of the traditional Iroquois clan. Each of the five Iroquois nations was comprised of matriarchal totemic clans in which, although the clan's chiefs were men, the heads of the clan were women. A chief's children were considered members of his wife's clan. Degandawida determined that the heads of each nation should select their League representatives, thereby effectively precluding the possibility of League representatives passing their power on to their sons as well as decreasing the likelihood that a pro-war representative would be appointed.

Unification of the Iroquois nations lasted for over two hundred years, until the American Revolution of 1776 when disagreement as to whether they should become involved in the war divided the Iroquois. Due to the success of the revolutionaries and the encroachment upon Iroquois lands that followed, many Iroquois resettled in Canada while those who remained behind lost the respect they had enjoyed among other Indian nations. The introduction of distilled spirits resulted in widespread alcoholism, leading in turn to the rapid decline of both the culture and the population. The influence of the Quakers impeded, yet in another sense contributed to, this decline. By establishing schools for the Iroquois and by introducing them to modern technology for agriculture and husbandry, the Quakers instilled in the Iroquois some hope for the future yet undermined the Iroquois' sense of national identity.

Ironically, it was the alcoholic half-brother of Seneca Cornplanter, perhaps the most outspoken proponent among the Iroquois for assimilation of white customs and institutions, who can be credited with reviving the Iroquois culture. Inspired by a near-death vision in 1799, Handsome Lake, a former member of the Great Council, established a new religion among the Iroquois that tied the more useful aspects of Christianity to traditional Indian beliefs and customs. Within a year, Handsome Lake had converted most of the Iroquois to his religion and had assumed an unprecedented position of power in the tribe. His teachings became firmly entrenched among the Iroquois and sparked reunification and renewed confidence, while also helping to end rampant alcoholism. The influence of Handsome Lake is still evident today; many modern-day Iroquois belong to both the religion of Handsome Lake and to one or another Christian sect. However, due in part to this dualism and in part to an absence of hierarchy, organization, or even a name, the extent of his influence upon modern-day Iroquois culture is not readily determinable.

18. In stating that the heads of the nations should select council representatives, thereby "decreasing the likelihood that a pro-war representative would be appointed," the author implies that
- A) women were more likely to select peace-loving representatives than were men

- B) heads of the nations were less likely to select pro-war representatives than were heads of the individual totemic clans
- C) war was more likely where power was passed down by a chief to his children
- D) a chief's children were more likely to favor war than were other members of the totemic clan
19. Which of the following best characterizes the structure of the passage as a whole?
- A) A theory is presented and then applied to two related historical phenomena.
- B) Two historical figures are introduced; then the nature and extent of their influence are compared.
- C) The inception of an historical phenomenon is examined; then the subsequent life of the phenomenon is traced.
- D) Competing views respecting an historical phenomenon are presented and then evaluated based upon empirical evidence.
20. The passage mentions all of the following events as contributing to the decline of the Iroquois culture EXCEPT:
- A) new educational opportunities for the Iroquois people
- B) divisive power struggles among the leaders of the Iroquois nations
- C) introduction of new farming technologies
- D) territorial threats against the Iroquois nations
21. Among the following reasons, it is most likely that the author considers Handsome Lake's leading a revival of the Iroquois culture to be "ironic" because
- A) he was a former member of the Great Council
- B) he was not a full-blooded relative of Seneca Cornplanter
- C) he was related by blood to a chief proponent of assimilation
- D) he was alcoholic
22. Assuming that the reasons asserted in the passage for the decline of the Iroquois culture are historically representative of the decline of cultural minorities, which of the following developments would most likely contribute to the demise of a modern-day ethnic minority?
- A) a bilingual education program in which children who are members of the minority group learn to read and write in both their traditional language and the language prevalent in the present culture
- B) a tax credit for residential-property owners who lease their property to members of the minority group
- C) increased efforts by local government to eradicate the availability of illegal drugs
- D) a government-sponsored program to assist minority-owned businesses in using computer technology to improve efficiency
23. Based upon the information in the passage, the author would agree that Degandawida and Handsome Lake most resembled each other in which of the following respects?
- A) They combined traditional Iroquois religious beliefs and the most useful aspects of Christianity.
- B) They drew upon their knowledge of Iroquois customs and traditions to persuade the

- Iroquois people.
- C) Their policies were aimed at uniting the Iroquois people against the white settlers.
  - D) Their efforts resulted in peace among the formerly feuding Iroquois factions.

### Passage V

The development of moulding technology parallels the study of resinification since it was only by fabricating the synthetic laboratory products that these materials could be turned into articles of commerce. The art of moulding developed following Charles Goodyear's discovery of the vulcanization of rubber about 1839; this involved the use of a simple hand type hydraulic press. This type of press came into use for all types of moulding operations where the mould is sufficiently light to warrant manual handling. With the development of phenolic resins, larger objects could be moulded, and this necessitated the improvement of compression moulding in order to increase the output of any individual mould. Automatic presses were developed and pins were incorporated into the mould itself to permit automatic ejection of the pieces from the mould. Where metallic inserts had to be introduced into the specimen during moulding, semiautomatic presses were constructed, enabling the introduction of inserts in an efficient manner. To eliminate error further and to speed production, automatic presses were fashioned which can measure the charge, preheat the charge, load it into the cavity, close the mould, mould the object, open the mould and eject the final piece. Still greater mould efficiencies are achieved by electronic preheating of the plastic prior to its introduction into the mould.

The conventional type of compression moulding is both awkward and expensive when applied to thermoplastic materials. When compression moulding is used on thermosetting materials the mould can be kept at a uniform and constant temperature. During the moulding and curing operations chemical reaction occurs, causing the plasticity to decrease, with the result that the product is sufficiently rigid while hot to be ejected from the mould. Thermoplastic resins, on the other hand, do not undergo any chemical change, and after fabrication of the piece it is necessary to cool the mould in order to decrease the plasticity to the point where the object can be taken out as a single entity. The idea arose that if it were possible to inject the hot plastic into a cool mould, utilizing the procedure used in the die-casting of metals, it would obviate the periodic heating and cooling of the mould. It is of interest to note that the first experiments directed toward injection moulding were made by John and Isaiah Hyatt, who were also instrumental in first commercializing nitrocellulose but they abandoned the work. Later the technique of injection moulding was again revived, this time in Germany. The first presses had an injection capacity of from about 5 oz. to 15 oz. per cycle and were useful only for the manufacture of small objects such as buttons, combs, and costume jewellery. Once the value of these presses was demonstrated and a suitable plastic composition developed, larger and larger presses were designed until it became possible to inject 32 oz. of plastic into a mould in a single cycle.

The advent of the injection type of equipment speeded up the production of thermoplastic resins, and in order to increase the mould capacity of the thermosetting resins a type of injection moulding was developed for the thermosetting type of material. This is known as transfer moulding. Since thermosetting resins remain plastic for only a very short time, they cannot be preheated in the manner employed for thermoplastic resins, the heating chamber must be loaded

afresh for each cycle and the heated charge forced into a hot mould. Not only does transfer moulding decrease the time of moulding of certain objects, but it allows the introduction of inserts which sometimes cannot be introduced into conventional compression mouldings. The plastic enters the mould in a highly fluid state and will not displace or break such fragile inserts as glass and fine metal parts. Moreover, the separation of resin and filler are minimized by this type of moulding, and the resulting moulded objects are stronger, of more uniform density, and free of gas pockets.

24. According to the passage, greater efficiency in compression molding can be achieved by
- A) keeping the plastic at a uniform and constant temperature
  - B) minimizing the separation of resin and filler
  - C) injecting the hot plastic into a cool mould, utilizing the procedure used in the die-casting of metals
  - D) electronically preheating the plastic prior to pouring it into the mould
25. According to the passage, all of the following contributed to the improvement of compression moulding except
- A) the desire to increase the output of any individual mould
  - B) the inability of compression moulding to adequately process thermoplastic moulds
  - C) the development of phenolic resins
  - D) the need to eject pieces automatically from the mould
26. What reason does the author give for the development of semiautomatic presses for use in compression moulding?
- A) to decrease the plasticity of thermoplastic resins
  - B) to facilitate the introduction of metal inserts into the specimen during the moulding process
  - C) to eliminate error and speed production
  - D) to maintain a constant and uniform temperature for moulding thermosetting resins
27. According to the author, the transfer moulding process is best utilized in which of the following operations?
- A) all types of moulding operations where the mould is sufficiently light to warrant manual handling
  - B) only for the manufacture of small objects such as buttons, combs, and costume jewelry
  - C) for use with thermoplastic materials
  - D) for use with thermosetting materials
28. The author mentions as advantages of transfer moulding all of the following except
- A) shorter moulding time for some products
  - B) minimal separation of resin and filler
  - C) more uniform density of the product
  - D) accelerated production of thermoplastic resins
29. The main theme expressed by the author of this passage is

- A) bigger and better plastic products can be developed through the various techniques of moulding
- B) the effect of heat on resins greatly affects the choice of moulding process in the manufacture of plastics
- C) the rubber industry was a prime casual agent in the development of moulding technology
- D) moulding technology developed in conjunction with the ability to synthesize resins in the laboratory

## Passage VI

“The painter of the future will be a colorist such as there has never been before.” This phrase underlined by Van Gogh in a letter to his brother Theo, is all the more prophetic in that the painter adds: “This will be seen in the generation to follow.”

Coming upon Japanese art after his discovery of Delacroix, Van Gogh first regarded color in terms of classical technique, regretting that he had not been taught to handle it sooner. His correspondence is full of comments which, however naive and over-simple, demonstrate his enthusiasm for color. He urged his brother to send him books on painting “provided that they deal with technique.” His first visit to Antwerp brought him a revelation of color that, in its effect upon him, was comparable to the conviction of his evangelical mission. As he had not yet embarked on his great creative phase, he associated tones along traditional lines: “A reddish grey containing relatively little red will appear more or less red according to the colors around it.” The Impressionists had already been aware of this, but Van Gogh’s conception was quite different from theirs in that he not only approved the use of black (anathema to the Impressionists), but openly maintained that darkness in itself was a color not to be dispensed with contending, furthermore, that to express form effectively it was preferable to use an almost monochrome color scheme whose tones differed only in their intensity and values. More and more frequently, however, he was inspired by a discoverer whose possibilities he was, in time, to exploit to the full: “Color in itself expresses something.” We find him declaring too that, while he had no scruples about borrowing from others, he continued to “see with his own eyes and to conceive things in his own way.”

During his stay in Antwerp (1885-86), Van Gogh also hit upon the rudiments of a system of color symbols not far removed from the technique employed by certain primitive artists who, in their frescos, stained glass and illuminations, attributed special meanings to the various colors. For instance, he was to qualify cobalt as “divine” and carmine as “warm and heady, like wine.” Perhaps his novel conception of the role of color was to come out most strongly in his moments of crisis. To his way of thinking, all the refinements of traditional technique could not “finish off a picture.” “I shall become an arbitrary colorist,” he was to say. He would try to “paint infinity” behind a commonplace wall, “to express hope by a star” and “human aspiration by a ray from the setting sun.” Emancipating himself from the tones of nature, he would employ “colors suggesting some emotion, warmth, personality.” About the same time, he was to speak of expressing “those terrible things, men’s passions” in red and green, and repeatedly to assert his fondness for yellow, which he considered as the color of faith, triumph, or love. Even the black contour lines he was to

employ were not intended to serve any purely painterly or technical function but to produce “something of a feeling of anguish.” He finally concluded that “exact color or exact drawing could not produce these emotions in themselves.”

Van Gogh, then, was to go beyond the traditional idea of painting as an exclusively visual art, thus opening up a wide field of experiment for painters to come. The present-day conception of art as individual creation and self-expression undoubtedly owes much to the idea so clearly expressed by Van Gogh in the following lines: “In life, and in painting too, I can very well dispense with God, but as a man acquainted with suffering, I can’t do without something greater than myself, which is my very life: the power to create.”

30. According to the author, we can learn most about Van Gogh’s enthusiasm and attitudes about color through
- A) his paintings
  - B) his correspondence
  - C) his brother Theo’s books on painting
  - D) his classical technique
31. In which of the following ways did Van Gogh originally regard color?
- A) as dealing only with technique
  - B) with the conviction of an evangelical mission
  - C) as most effective in almost monochromatic color schemes
  - D) as expressive in itself
32. The author indicates that Van Gogh’s later ideas about color were
- I. traditional
  - II. arbitrary
  - III. prophetic
  - IV. experimental
  - V. Impressionistic
- A) I and II
  - B) I and V
  - C) I, III, and V
  - D) II, III, and IV
33. All of the following factors are given in the passage as contributing directly or indirectly to Van Gogh’s particular attitudes about color except
- A) his stay in Antwerp in 1885-86
  - B) his moments of crisis
  - C) the color tones of nature
  - D) his study of Japanese art
34. According to the passage, all of the following are characteristic of Van Gogh’s use of color except
- A) the use of a monochromatic color scheme to express form

- B) the use of red and green to express men's passions
- C) the use of black contour lines to produce a feeling of anguish
- D) the use of exact color to express emotions

### Passage VII

World War I marks a great divide in the history of progressive education. Merely the founding of the Progressive Education Association in 1919 would have changed the movement significantly, since what had formerly been a rather loosely defined revolt against academic formalism now gained a vigorous organizational voice. But there were deeper changes, in the image of progressivism itself, that were bound to influence the course and meaning of educational reform.

Malcolm Cowley, in his delightful reminiscences of the twenties, *Exile's Return*, describes these changes well. He notes insightfully that intellectual protest in prewar years had mingled two quite different sorts of revolt: bohemianism and radicalism. The one was essentially an individual revolt against puritan restraint; the other, primarily a social revolt against the evils of capitalism. World War I, he argues, brought a parting of the ways. People were suddenly forced to decide what kinds of rebels they were. If they were merely rebels against puritanism, they could exist safely in Mr. Wilson's world; if they were radicals, they had no place in it.

Cowley's analysis provides a key to one of the important intellectual shifts of the twenties. With the end of the War, radicalism seemed no longer in fashion among the avant garde, particularly the artists and literati who flocked to the Greenwich Villages of New York, Chicago, and San Francisco. It did not die; it was merely eclipsed by a polyglot system of ideas which combined the doctrines of self-expression, liberty, and psychological adjustment into a confident, iconoclastic individualism that fought the constraints of Babbity and the discipline of social reform as well. And just as pre-war progressivism had given rise to a new educational outlook, on which cast the school as a lever of social change, so this post-war protest developed its own characteristic pedagogical argument: the notion that each individual has uniquely creative potentialities, and that a school in which children are encouraged freely to develop these potentialities is the best guarantee of a larger society truly devoted to human worth and excellence.

Now those who had read *Schools of Tomorrow* must certainly have recognized this essentially Rousseauian stance; it had been at the heart of several of the schools Dewey had described. Yet readers who had troubled to follow Dewey's argument to the end, and who had accepted his analysis incorporating Rousseau's insights into a larger social reformism, must have noted a curious difference of emphasis here. For just as radicalism seemed eclipsed in the broader protests of the twenties, so it seemed to disappear from the progressive pedagogy of the decade. For all intents and purposes, the avant garde pedagogues expanded one part of what progressive education had formerly meant into its total meaning.

Nowhere is this transformation more clearly documented than in the characteristic exegesis of progressive education during the twenties, *The Child-centered School*. Written by Harold Rugg and Ann Shumaker in 1928, the volume attempts for the movement in its time what *Schools of*

Tomorrow had done a decade earlier. Its pages teem with pedagogical experiments illustrating the new articles of pedagogical faith: freedom, child-interest, pupil initiative, creative self-expression, and personality development. And just as Dewey had seen a central connection with democracy as the crux of the earlier movement, so Rugg and Shumaker saw the relationship with the creative revolution of the twenties as the essential meaning of this one. To grasp the significance of the child-centered schools, they urged, one had to comprehend the historic battle of the artist against the standardization, the superficiality, and the commercialism of industrial civilization. The key to the creative revolution of the twenties was the triumph of self-expression, in art and in education as well. Hence, in creative self-expression they found the quintessential meaning of the progressive education movement.

35. All of the following reasons are given in the passage for the significant change which occurred in progressive education after World War I except
- A) the emergence of a progressive educational organization which gave a public voice to the progressive movement
  - B) a factional split within the progressive intellectual protest movement between Bohemians and radicals
  - C) the unification of bohemians and radicals under the auspices of the Progressive Education Association
  - D) the falling out of fashion of radicalism among the post-war avant garde
36. The chief difference between Dewey's ideas of progressive education and those of other educators mentioned in the passage is that Dewey
- A) believed in the unique creative potential of each individual student
  - B) saw the essential meaning of progressive education as a war against industrial civilization
  - C) believed in the triumph of self-expression in art and in education as well
  - D) saw the school as a lever of social change
37. It was argued during the 1920's that in order to grasp the significance of the child-centered schools, a person ought to be
- A) Rousseauian
  - B) pedagogically experimental
  - C) avant garde
  - D) united against the evils of capitalism
38. It can be inferred from the passage that after World War I teachers in America became
- A) more socially conscious
  - B) more interested in child psychology
  - C) less free
  - D) more democratic
39. Which of the following did the post-war movement believe should be the essential motivations or reference points of progressive education?
- I. the creative revolution of the twenties
  - II. the need for individual expression of creative potential

- III. democracy
- IV. the need for social reform
- V. radicalism

- A) I and III
- B) I, II, and IV
- C) II and III
- D) I and II

40. The main idea of this selection is that
- A) the post-war progressive education movement expanded the bohemian current of the prewar movement into a pedagogical doctrine of iconoclastic individualism
  - B) World War I was responsible for pushing American progressive education in a new direction
  - C) the Progressive Education Association enabled the movement to make a change in emphasis that would otherwise have been impossible
  - D) radicalism as an article of pedagogical faith faded from the post-war scene