

# LNAT Free Sample: LNAT00



# National Admissions Test for Law (LNAT)

## Free Practise Question Paper

The test has 2 separate Section A and Section B

### Section A: Multiple Choice

This section is divided into 14 sub sections; each sub section has between 2 and 4 questions. You should answer all 42 multiple choice questions in Section A, selecting one of the possible answers listed for each question.

**Time allowed: 135 minutes**

### Section B: Essay

This section has 5 essay questions. You should select and answer one question in Section B.

**Time allowed: 40 minutes**

**Passage I****The achievements of Florence Nightingale**

Two recent publications offer different assessment of the career of the famous British nurse Florence Nightingale. A book by Anne Summers seeks to debunk the idealisations and present a reality at odds with Nightingale's heroic reputation. According to Summers, Nightingale's importance during the Crimean War has been exaggerated: not until near the war's end did she become supervisor of the female nurses. Additionally, Summers writes that the contribution of the nurses to the relief of the wounded was at best marginal. The prevailing problems of military medicine were caused by army organisational practices, and the addition of a few nurses to the medical staff could be no more than symbolic. Nightingale's place in the national pantheon, Summers asserts, is largely due to the propagandistic efforts of contemporary newspaper reporters.

By contrast, the editors of a new volume of Nightingale's letters view Nightingale as a person who significantly influenced not only her own age but also subsequent generations. They highlight her ongoing efforts to reform sanitary conditions after the war. For example, when she learned that peacetime living conditions in British barracks were so horrible that the death rate of enlisted men far exceeded that of neighbouring civilian populations, she succeeded in persuading the government to establish a Royal Commission on the Health of the Army. She used sums raised through public contributions to found a nurses' training hospital in London. Even in administrative matters, the editors assert, her practical intelligence was formidable: as recently as 1947 the British Army's medical services were still using the cost-accounting system she had devised in the 1860's.

I believe that the evidence of her letters supports continued respect for Nightingale's brilliance and creativity. When counselling a village schoolmaster to encourage children to use their faculties of observation, she sounds like a modern educator. Her insistence on classifying the problems of the needy in order to devise appropriate treatments is similar to the approach of modern social workers. In sum, although Nightingale may not have achieved all of her goals during the Crimean War, her breadth of vision and ability to realise ambitious projects have earned her an eminent place among the ranks of social pioneers.

- 1 The passage is primarily concerned with evaluating
  - A the importance of Florence Nightingale's innovations in the field of nursing.
  - B contrasting approaches to the writing of historical biography.
  - C contradictory accounts of Florence Nightingale's historical significance.
  - D the quality of health care in nineteenth-century England.
  - E the effect of the Crimean War on developments in the field of health care.
  
- 2 According to the passage, the editors of Nightingale's letters credit her with contributing to which of the following?
  - A Improvement of the survival rate for soldiers in British Army hospitals during the Crimean War.
  - B The development of a nurses' training curriculum that was far advanced for its day.
  - C The increase in the number of women doctors practicing in British Army hospitals.
  - D Establishment of the first facility for training nurses at a major British university.
  - E The creation of an organisation for monitoring the peacetime living conditions of British soldiers.
  
- 3 The passage suggests which of the following about Nightingale's relationship with the British public of her day?
  - A She was highly respected, her projects receiving popular and governmental support.
  - B She encountered resistance both from the army establishment and the general public.
  - C She was supported by the working classes and opposed by the wealthier classes.
  - D She was supported by the military establishment but had to fight the governmental bureaucracy.
  - E After initially being received with enthusiasm, she was quickly forgotten.

**Passage II****Experiments with meteor streams**

A meteor stream is composed of dust particles that have been ejected from a parent comet at a variety of velocities. These particles follow the same orbit as the parent comet, but due to their differing velocities they slowly gain on or fall behind the disintegrating comet until a shroud of dust surrounds the entire commentary orbit. Astronomers have hypothesised that a meteor stream should broaden with time as the dust particles' individual orbits are perturbed by planetary gravitational fields. A recent computer-modelling experiment tested this hypothesis by tracking the influence of planetary gravitation over a projected 5,000-year period on the positions of a group of hypothetical dust particles. In the model, the particles were randomly distributed throughout a computer simulation of the orbit of an actual meteor stream, the Geminid. The researcher found, as expected, that the computer-model stream broadened with time. Conventional theories, however, predicted that the distribution of particles would be increasingly dense toward the centre of a meteor stream. Surprisingly, the computer-model meteor stream gradually came to resemble a thick-walled, hollow pipe.

Whenever the Earth passes through a meteor stream, a meteor shower occurs. Moving at a little over 1,500,000 miles per day around its orbit, the Earth would take, on average, just over a day to cross the hollow, computer-model Geminid stream if the stream were 5,000 years old. Two brief periods of peak meteor activity during the shower would be observed, one as the Earth entered the thick-walled "pipe" and one as it exited. There is no reason why the Earth should always pass through the stream's exact centre, so the time interval between the two bursts of activity would vary from one year to the next.

- 4 The primary focus of the passage is on which of the following?
- A Comparing two scientific theories and contrasting the predictions that each would make concerning a natural phenomenon.
  - B Describing a new theoretical model and noting that it explains the nature of observations made of a particular natural phenomenon.
  - C Evaluating the results of a particular scientific experiment and suggesting further areas for research.
  - D Explaining how two different natural phenomena are related and demonstrating a way to measure them.
  - E Analysing recent data derived from observations of an actual phenomenon and constructing a model to explain the data.
- 5 According to the passage, which of the following is an accurate statement concerning meteor streams?
- A Meteor streams and comets start out with similar orbits, but only those of meteor streams are perturbed by planetary gravitation.
  - B Meteor streams grow as dust particles are attracted by the gravitational fields of comets.
  - C Meteor streams are composed of dust particles derived from comets.
  - D Comets may be composed of several kinds of materials, while meteor streams consist only of large dust particles.
  - E Once formed, meteor streams hasten the further disintegration of comets.
- 6 The author states that the research described in the first paragraph was undertaken in order to
- A determine the age of an actual meteor stream.
  - B identify the various structural features of meteor streams.
  - C explore the nature of a particularly interesting meteor stream.
  - D test the hypothesis that meteor streams become broader as they age.
  - E show that a computer model could help in explaining actual astronomical data.

**Passage III****Nineteenth century women's politics in USA**

The new school of political history that emerged in the 1960's and 1970's sought to go beyond the traditional focus of political historians on leaders and government institutions by examining directly the political practices of ordinary citizens. Like the old approach, however, this new approach excluded women. The very techniques these historians used to uncover mass political behaviour in the nineteenth-century United States—quantitative analyses of election returns, for example—were useless in analysing the political activities of women, who were denied the vote until 1920.

By redefining “political activity,” historian Paula Baker has developed a political history that includes women. She concludes that among ordinary citizens, political activism by women in the nineteenth century prefigured trends in twentieth-century politics. Defining “politics” as “any action taken to affect the course of behaviour of government or of the community,” Baker concludes that, while voting and holding office were restricted to men, women in the nineteenth century organised themselves into societies committed to social issues such as temperance and poverty. In other words, Baker contends, women activists were early practitioners of nonpartisan, issue-oriented politics and thus were more interested in enlisting lawmakers, regardless of their party affiliation, on behalf of certain issues than in ensuring that one party or another won an election. In the twentieth century, more men drew closer to women's ideas about politics and took up modes of issue-oriented politics that Baker sees women as having pioneered.

- 7 The primary purpose of the passage is to
- A enumerate reasons why both traditional scholarly methods and newer scholarly methods have limitations.
  - B identify a shortcoming in a scholarly approach and describe an alternative approach.
  - C provide empirical data to support a long-held scholarly assumption.
  - D compare two scholarly publications on the basis of their authors' backgrounds.
  - E attempt to provide a partial answer to a long-standing scholarly dilemma.
- 8 The passage suggests which of the following concerning the techniques used by the new political historians described in the first paragraph of the passage?
- A They involved the extensive use of the biographies of political party leaders and political theoreticians.
  - B They were conceived by political historians who were reacting against the political climates of the 1960s and 1970s.
  - C They were of more use in analysing the positions of United States political parties in the nineteenth century than in analysing the positions of those in the twentieth century.
  - D They were of more use in analysing the political behaviour of nineteenth-century voters than in analysing the political activities of those who could not vote during that period.
  - E They were devised as a means of tracing the influence of nineteenth-century political trends on twentieth-century political trends.
- 9 It can be inferred that the author of the passage quotes Baker directly in the second paragraph primarily in order to
- A clarify a position before providing an alternative of that position.
  - B differentiate between a novel definition and traditional definitions.
  - C provide an example of a point agreed on by different generations of scholars.
  - D provide an example of the prose style of an important historian.
  - E amplify the definition given in the first paragraph.

**Passage IV****Theories about globular clusters' formation in the Milky Way**

New observations about the age of some globular clusters in our Milky Way galaxy have cast doubt on a long-held theory about how the galaxy was formed. The Milky Way contains about 125 globular clusters (compact groups of anywhere from several tens of thousands to perhaps a million stars) distributed in a roughly spherical halo around the galactic nucleus. The stars in these clusters are believed to have been born during the formation of the galaxy, hence may be considered relics of the actual galactic nebula, holding vital clues to the way the formation took place.

The conventional theory of the formation of the galaxy contends that roughly 12 to 13 billion years ago the Milky Way formed over a relatively short time (about 200 million years) when a spherical cloud of gas collapsed under the pressure of its own gravity into a disc surrounded by a halo. Such a rapid formation of the galaxy would mean that all stars in the halo should be very nearly the same age.

However, the astronomer Michael Bolte has found considerable variation in the ages of globular clusters. One of the clusters studied by Bolte is 2 billion years older than most other clusters in the galaxy, while another is 2 billion years younger. A colleague of Bolte contends that the cluster called Palomar 12 is 5 billion years younger than most other globular clusters.

To explain the age differences among the globular clusters, astronomers are taking a second look at “renegade” theories. One such newly fashionable theory, first put forward by Richard Larson in the early 1970’s, argues that the halo of the Milky Way formed over a period of a billion or more years as hundreds of small gas clouds drifted about, collided, lost orbital energy, and finally collapsed into a centrally condensed elliptical system. Larson’s conception of a “lumpy and turbulent” protogalaxy is complemented by computer modelling done in the 1970’s by mathematician Alan Toomre, which suggests that closely interacting spiral galaxies could lose enough orbital energy to merge into a single galaxy.

- 10 The passage is primarily concerned with discussing
- A the importance of determining the age of globular clusters in assessing when the Milky Way galaxy was formed.
  - B recent changes in the procedure used by astronomers to study the formation of the Milky Way galaxy.
  - C current disputes among astronomers regarding the size and form of the Milky Way galaxy.
  - D the effect of new discoveries regarding globular clusters on theories about the formation of the Milky Way galaxy.
  - E the origin, nature, and significance of groups of stars known as globular clusters.
- 11 According to the passage, one way in which Larson’s theory and the conventional theory of the formation of the Milky Way galaxy differs is in their assessment of the
- A amount of time it took to form the galaxy.
  - B size of the galaxy immediately after its formation.
  - C particular gas involved in the formation of the galaxy.
  - D importance of the age of globular clusters in determining how the galaxy was formed.
  - E shape of the halo that formed around the galaxy.
- 12 The passage suggests that Toomre’s work complements Larson’s theory because it
- A specifies more precisely the time frame proposed by Larson.
  - B subtly alters Larson’s theory to make it more plausible.
  - C supplements Larson’s hypothesis with direct astronomical observations.
  - D provides theoretical support for the ideas suggested by Larson.
  - E expands Larson’s theory to make it more widely applicable.

**Passage V****Stimulation Of Economic Development**

During the 1960's and 1970's, the primary economic development strategy of local governments in the United States was to attract manufacturing industries. Unfortunately, this strategy was usually implemented at another community's expense: many manufacturing facilities were lured away from their moorings elsewhere through tax incentives and slick promotional efforts. Through the transfer of jobs and related revenues that resulted from this practice, one town's triumph could become another town's tragedy.

In the 1980's the strategy shifted from this zero-sum game to one called "high-technology development," in which local governments competed to attract newly formed high-technology manufacturing firms. Although this approach was preferable to victimising other geographical areas by taking their jobs, it also had its shortcomings: high-tech manufacturing firms employ only a specially trained fraction of the manufacturing workforce, and there simply are not enough high-tech firms to satisfy all geographic areas.

Recently, local governments have increasingly come to recognise the advantages of yet a third strategy: the promotion of home-grown small businesses. Small indigenous businesses are created by a nearly ubiquitous resource, local entrepreneurs. With roots in their communities, these individuals are less likely to be enticed away by incentives offered by another community. Indigenous industry and talent are kept at home, creating an environment that both provides jobs and fosters further entrepreneurship.

- 13 The primary purpose of the passage is to
- A advocate more effective strategies for encouraging the development of high-technology enterprises in the United States.
  - B contrast the incentives for economic development offered by local governments with those offered by the private sector.
  - C acknowledge and counter adverse criticism of programs being used to stimulate local economic development.
  - D define and explore promotional efforts used by local governments to attract new industry.
  - E review and evaluate strategies and programs that have been used to stimulate economic development.
- 14 The passage suggests which of the following about the majority of United States manufacturing industries before the high-technology development era of the 1980's?
- A They lost many of their most innovative personnel to small entrepreneurial enterprises.
  - B They experienced a major decline in profits during the 1960's and 1970's.
  - C They could provide real economic benefits to the areas in which they were located.
  - D They employed workers who had no specialised skills.
  - E They actively interfered with local entrepreneurial ventures.
- 15 The tone of the passage suggests that the author is most optimistic about the economic development potential of which of the following groups?
- A Local governments
  - B High-technology promoters
  - C Local entrepreneurs
  - D Manufacturing-industry managers
  - E Economic development strategists



**Passage VI****Truth Behind Tooth Fracture**

Researchers compared the number of tooth fractures in present-day carnivores with tooth fractures in carnivores that lived 36,000 to 10,000 years ago and that were preserved in the Rancho La Brea tar pits in Los Angeles. The breakage frequencies in the extinct species were strikingly higher than those in the present-day species.

In considering possible explanations for this finding, the researchers dismissed demographic bias because older individuals were not overrepresented in the fossil samples. They rejected preservational bias because a total absence of breakage in two extinct species demonstrated that the fractures were not the result of abrasion within the pits. They ruled out local bias because breakage data obtained from other Pleistocene sites were similar to the La Brea data. The explanation they consider most plausible is behavioural differences between extinct and present-day carnivores—in particular, more contact between the teeth of predators and the bones of prey due to more thorough consumption of carcasses by the extinct species. Such thorough carcass consumption implies to the researchers either that prey availability was low, at least seasonally, or that there was intense competition over kills and a high rate of carcass theft due to relatively high predator densities.

- 16 The primary purpose of the passage is to
- A present several explanations for a well-known fact.
  - B suggest an alternative method of resolving a debate.
  - C argue in favour of a controversial theory.
  - D question the methodology used in a study.
  - E discuss the implications of a research finding.
- 17 The passage suggests that, compared with Pleistocene carnivores in other areas, Pleistocene carnivores in the La Brea area
- A included the same species, in approximately the same proportions.
  - B had a similar frequency of tooth fractures.
  - C populated the La Brea more densely.
  - D consumed their prey more thoroughly.
  - E found it harder to obtain sufficiency prey.
- 18 According to the passage, the researchers believe that the high frequency of tooth breakage in carnivores found at La Brea was caused primarily by
- A the aging process in individual carnivores.
  - B contact between the fossils in the pits.
  - C poor preservation of the fossils after they were removed from the pits.
  - D the impact of carnivores' teeth against the bones of their prey.
  - E the impact of carnivores' teeth against the bones of other carnivores during fights over kills.

**Passage VII****Census In 19th Century United States**

During the nineteenth-century, occupational information about women that was provided by the United States census—a population count conducted each decade—became more detailed and precise in response to social changes. Through 1840, simple enumeration by household mirrored a home-based agricultural economy and



hierarchical social order: the head of the household (presumed male or absent) was specified by name, whereas other household members were only indicated by the total number of persons counted in various categories, including occupational categories. Like farms, most enterprises were family-run, so that the census measured economic activity as an attribute of the entire household, rather than of individuals.

The 1850 census, partly responding to antislavery and women's rights movements, initiated the collection of specific information about each individual in a household. Not until 1870 was occupational information analysed by gender: the census superintendent reported 1.8 million women employed outside the home in "gainful and reputable occupations." In addition, he arbitrarily attributed to each family one woman "keeping house." Overlap between the two groups was not calculated until 1890, when the rapid entry of women into the paid labour force and social issues arising from industrialisation were causing women's advocates and women statisticians to press for more thorough and accurate accounting of women's occupations and wages.

- 19 The primary purpose of the passage is to
- A explain and critique the methods used by early statisticians.
  - B compare and contrast a historical situation with a current-day one.
  - C describe and explain a historical change.
  - D discuss historical opposition to an established institution.
  - E trace the origin of a contemporary controversy.
- 20 Each of the following aspects of nineteenth-century United States censuses is mentioned in the passage EXCEPT the
- A year in which data on occupations began to be analysed by gender.
  - B year in which specific information began to be collected on individuals in addition to the head of the household.
  - C year in which overlap between women employed outside the home and women keeping house was first calculated.
  - D way in which the 1890 census measured women's income levels and educational backgrounds.
  - E way in which household members were counted in the 1840 census.
- 21 It can be inferred from the passage that the 1840 United States census provided a count of which of the following?
- A Women who worked exclusively in the home
  - B People engaged in nonfarming occupations
  - C People engaged in social movements
  - D Women engaged in family-run enterprises
  - E Men engaged in agriculture

### Passage VIII

#### Sixteenth Century Trading Companies

The modern multinational corporation is described as having originated when the owner-managers of nineteenth-century British firms carrying on international trade were replaced by teams of salaried managers organised into hierarchies. Increases in the volume of transactions in such firms are commonly believed to have necessitated this structural change. Nineteenth-century inventions like the steamship and the telegraph, by facilitating coordination of managerial activities, are described as key factors. Sixteenth- and seventeenth-century chartered trading companies, despite the international scope of their activities, are usually considered irrelevant to this discussion: the volume of

their transactions is assumed to have been too low and the communications and transport of their day too primitive to make comparisons with modern multinationals interesting.

In reality, however, early trading companies successfully purchased and outfitted ships, built and operated offices and warehouses, manufactured trade goods for use abroad, maintained trading posts and production facilities overseas, procured goods for import, and sold those goods both at home and in other countries. The large volume of transactions associated with these activities seems to have necessitated hierarchical management structures well before the advent of modern communications and transportation. For example, in the Hudson's Bay Company, each far-flung trading outpost was managed by a salaried agent, who carried out the trade with the Native Americans, managed day-to-day operations, and oversaw the post's workers and servants. One chief agent, answerable to the Court of Directors in London through the correspondence committee, was appointed with control over all of the agents on the bay.

The early trading companies did differ strikingly from modern multinationals in many respects. They depended heavily on the national governments of their home countries and thus characteristically acted abroad to promote national interests. Their top managers were typically owners with a substantial minority share, whereas senior managers' holdings in modern multinationals are usually insignificant. They operated in a pre-industrial world, grafting a system of capitalist international trade onto a pre-modern system of artisan and peasant production. Despite these differences, however, early trading companies organised effectively in remarkably modern ways and merit further study as analogues of more modern structures.

22 The author's main point is that

- A modern multinationals originated in the sixteenth and seventeenth centuries with the establishment of chartered trading companies.
- B the success of early chartered trading companies, like that of modern multinationals, depended primarily on their ability to carry out complex operations.
- C early chartered trading companies should be more seriously considered by scholars studying the origins of modern multinationals.
- D scholars are quite mistaken concerning the origins of modern multinationals.
- E the management structures of early chartered trading companies are fundamentally the same as those of modern multinationals.

23 According to the passage, early chartered trading companies are usually described as

- A irrelevant to a discussion of the origins of the modern multinational corporation.
- B interesting but ultimately too unusual to be good subjects for economic study.
- C analogues of nineteenth-century British trading firms.
- D rudimentary and very early forms of the modern multinational corporation.
- E important national institutions because they existed to further the political aims of the governments of their home countries.

24 It can be inferred from the passage that the author would characterise the activities engaged in by early chartered trading companies as being

- A complex enough in scope to require a substantial amount of planning and coordination on the part of management.
- B too simple to be considered similar to those of a modern multinational corporation.
- C as intricate as those carried out by the largest multinational corporations today.
- D often unprofitable due to slow communications and unreliable means of transportation.
- E hampered by the political demands imposed on them by the governments of their home countries.

**Passage IX****Working Women's Values**

In an unfinished but highly suggestive series of essays, the late Sarah Eisenstein has focused attention on the evolution of working women's values from the turn of the century to the First World War. Eisenstein argues that turn-of-the-century women neither wholly accepted nor rejected what she calls the dominant "ideology of domesticity," but rather took this and other available ideologies—feminism, socialism, trade unionism—and modified or adapted them in light of their own experiences and needs. In thus maintaining that wage-work helped to produce a new "consciousness" among women, Eisenstein to some extent challenges the recent, controversial proposal by Leslie Tentler that for women the work experience only served to reinforce the attractiveness of the dominant ideology. According to the Tentler, the degrading conditions under which many female wage earners worked made them view the family as a source of power and esteem available nowhere else in their social world. In contrast, Eisenstein's study insists that wage-work had other implications for women's identities and consciousness. Most importantly, her work aims to demonstrate that wage-work enabled women to become aware of themselves as a distinct social group capable of defining their collective circumstance. Eisenstein insists that as a group working-class women were not able to come to collective consciousness of their situation until they began entering the labour force, because domestic work tended to isolate them from one another.

Unfortunately, Eisenstein's unfinished study does not develop these ideas in sufficient depth or detail, offering tantalising hints rather than an exhaustive analysis. Whatever Eisenstein's overall plan may have been, in its current form her study suffers from the limited nature of the sources she depended on. She uses the speeches and writings of reformers and labour organisers, who she acknowledges were far from representative, as the voice of the typical woman worker. And there is less than adequate attention given to the differing values of immigrant groups that made up a significant proportion of the population under investigation. While raising important questions, Eisenstein's essays do not provide definitive answer, and it remains for others to take up the challenges they offer.

- 25 The primary purpose of the passage is to
- A criticise a scholar's assumptions and methodology.
  - B evaluate an approach to women's study.
  - C compare two sociological theories.
  - D correct a misconception about feminist theory.
  - E defend an unpopular ideology.
- 26 It can be inferred from the passage that, in Eisenstein's view, working women at the turn of the century had which of the following attitudes toward the dominant ideology of their time?
- A They resented the dominant ideology as degrading.
  - B They preferred the dominant ideology to other available ideologies.
  - C They began to view the dominant ideology more favourably as a result of their experiences in the labour force.
  - D They accepted some but not all aspects of the dominant ideology.
  - E They believed that the dominant ideology isolated them from one another.
- 27 Which of the following best describes the organisation of the first paragraph of the passage?
- A A chronological account of a historical development is presented, and then future developments are predicted.
  - B A term is defined according to several different schools of thought, and then a new definition is formulated.
  - C A theory is presented, an alternative viewpoint is introduced, and then the reasoning behind the initial theory is summarised.

- D A tentative proposal is made, reasons for and against it are weighed, and then a modified version of the proposal is offered.
- E A controversy is described, its historical implications are assessed, and then a compromise is suggested.

### Passage X

#### Zonation Of Mangroves

Neotropical coastal mangrove forests are usually “zonal,” with certain mangrove species found predominantly in the seaward portion of the habitat and other mangrove species on the more landward portions of the coast. The earliest research on mangrove forests produced descriptions of species distribution from shore to land, without exploring the causes of the distributions.

The idea that zonation is caused by plant succession was first expressed by J. H. Davis in a study of Florida mangrove forests. According to Davis’ scheme, the shoreline is being extended in a seaward direction because of the “land-building” role of mangroves, which, by trapping sediments over time, extend the shore. As a habitat gradually becomes more inland as the shore extends, the “land-building” species are replaced. This continuous process of accretion and succession would be interrupted only by hurricanes or storm flushings.

Recently the universal application of Davis’ succession paradigm has been challenged. It appears that in areas where weak currents and weak tidal energies allow the accumulation of sediments, mangroves will follow land formation and accelerate the rate of soil accretion; succession will proceed according to Davis’ scheme. But on stable coastlines, the distribution of mangrove species results in other patterns of zonation; “land building” does not occur. To find a principle that explains the various distribution patterns, several researchers have looked to salinity and its effects on mangrove. While mangroves can develop in fresh water, they can also thrive in salinities as high as 2.5 times that of seawater. However, those mangrove species found in freshwater habitats do well only in the absence of competition, thus suggesting that salinity tolerance is a critical factor in competitive success among mangrove species. Research suggests that mangroves will normally dominate highly saline regions, although not because they require salt. Rather, they are metabolically efficient (and hence grow well) in portions of an environment whose high salinity excludes plants adapted to lower salinities. Tides create different degrees of salinity along a coastline. The characteristic mangrove species of each zone should exhibit a higher metabolic efficiency at that salinity than will any potential invader, including other species of mangrove.

- 28 The primary of the purpose of the passage is to
- A refute the idea that the zonation exhibited in mangrove forests is caused by adaptation to salinity.
  - B describe the pattern of zonation typically found in Florida mangrove forests.
  - C argue that Davis’ succession paradigm cannot be successfully applied to Florida mangrove forests.
  - D discuss hypotheses that attempt to explain the zonation of coastal mangrove forests.
  - E establish that plants that do well in saline forest environments require salt to achieve maximum metabolic efficiency.
- 29 According to the passage, the earliest research on mangrove forest produced which of the following?
- A Data that implied random patterns of mangrove species distribution
  - B Descriptions of species distributions suggesting zonation
  - C Descriptions of the development of mangrove forests over time
  - D Reclassification of species formerly thought to be identical
  - E Data that confirmed the “land-building” role of mangroves

- 30 It can be inferred from the passage that Davis' paradigm does NOT apply to which of the following?
- A The shoreline of Florida mangrove forests first studied by Davis
  - B A shoreline in an area with weak currents
  - C A shoreline in an area with weak tidal energy
  - D A shoreline extended by "land-building" species of mangrove
  - E A shoreline in which few sediments can accumulate

### Passage XI

#### Backward Integration

Modern manufacturers, who need reliable sources of materials and technologically advanced components to operate profitably, face an increasingly difficult choice between owning the producers of these items (a practice known as backward integration) and buying from independent producers. Manufacturers who integrate may reap short-term rewards, but they often restrict their future capacity for innovative product development.

Backward integration removes the need for some purchasing and marketing functions, centralises overhead, and permits manufacturers to eliminate duplicated efforts in research and development. Where components are commodities (ferrous metals or petroleum, for example), backward integration almost certainly boosts profits. Nevertheless, because product innovation means adopting the most technologically advanced and cost-effective ways of making components, backward integration may entail a serious risk for a technologically active company—for example, a producer of sophisticated consumer electronics.

A company that decides to make rather than buy important parts can lock itself into an outdated technology. Independent suppliers may be unwilling to share innovations with assemblers with whom they are competing. Moreover, when an assembler sets out to master the technology of producing advanced components, the resulting demands on its resources may compromise its ability to assemble these components successfully into end products. Long-term contracts with suppliers can achieve many of the same cost benefits as backward integration without compromising a company's ability to innovate.

However, moving away from backward integration is not a complete solution either. Developing innovative technologies requires independent suppliers of components to invest huge sums in research and development. The resulting low profit margins on the sale of components threaten the long-term financial stability of these firms. Because the ability of end-product assemblers to respond to market opportunities depends heavily on suppliers of components, assemblers are often forced to integrate by purchasing the suppliers of components just to keep their suppliers in business.

- 31 According to the passage, all of the following are benefits associated with backward integration EXCEPT
- A improvement in the management of overhead expenses.
  - B enhancement of profit margins on sales of components.
  - C simplification of purchasing and marketing operations.
  - D reliability of a source of necessary components.
  - E elimination of unnecessary research efforts.
32. According to the passage, when an assembler buys a firm that makes some important component of the end product that the assembler produces, independent suppliers of the same component may
- A withhold technological innovations from the assembler.
  - B experience improved profit margins on sales of their products.
  - C lower their prices to protect themselves from competition.

- D suffer financial difficulties and go out of business.  
E stop developing new versions of the component.
- 33 Which of the following best describes the way the last paragraph functions in the context of the passage?
- A The last in a series of arguments supporting the central argument of the passage is presented.  
B A viewpoint is presented which qualifies one presented earlier in the passage.  
C Evidence is presented in support of the argument developed in the preceding paragraph.  
D Questions arising from the earlier discussion are identified as points of departure for further study of the topic.  
E A specific example is presented to illustrate the main elements of argument presented in the earlier paragraphs.

## Passage XII

### Homeostasis: Retaining Fluids

Homeostasis, an animal's maintenance of certain internal variables within an acceptable range, particularly in extreme physical environments, has long interested biologists. The desert rat and the camel in the most water-deprived environments, and marine vertebrates in an all-water environment, encounter the same regulatory problem: maintaining adequate internal fluid balance.

For desert rats and camels, the problem is conservation of water in an environment where standing water is nonexistent, temperature is high, and humidity is low. Despite these handicaps, desert rats are able to maintain the osmotic pressure of their blood, as well as their total body-water content, at approximately the same levels as other rats. One countermeasure is behavioural: these rats stay in burrows during the hot part of the day, thus avoiding loss of fluid through panting or sweating, which are regulatory mechanisms for maintaining internal body temperature by evaporative cooling. Also, desert rats' kidneys can excrete urine having twice as high a salt content as sea water. Camels, on the other hand, rely more on simple endurance. They cannot store water, and their reliance on an entirely unexceptional kidney results in a rate of water loss through renal function significantly higher than that of desert rats. As a result, camels must tolerate losses in body water of up to thirty percent of their body weight. Nevertheless, camels do rely on a special mechanism to keep water loss within a tolerable range: by seating and panting only when their body temperature exceeds that which would kill a human, they conserve internal water.

Marine vertebrates experience difficulty with their water balance because though there is no shortage of seawater to drink, they must drink a lot of it to maintain their internal fluid balance. But the excess salts from the seawater must be discharged somehow, and the kidneys of most marine vertebrates are unable to excrete urine in which the salts are more concentrated than in seawater. Most of these animals have special salt-secreting organs outside the kidney that enable them to eliminate excess salt.

- 34 Which of the following most accurately states the purpose of the passage?
- A To compare two different approaches to the study of homeostasis  
B To summarise the findings of several studies regarding organisms' maintenance of internal variables in extreme environments  
C To argue for a particular hypothesis regarding various organisms' conservation of water in desert environments  
D To cite examples of how homeostasis is achieved by various organisms  
E To defend a new theory regarding the maintenance of adequate fluid balance
- 35 According to the passage, the camel maintains internal fluid balance in which of the following ways?
- I. By behavioural avoidance of exposure to conditions that lead to fluid loss



- II. By an ability to tolerate high body temperatures
  - III. By reliance on stored internal fluid supplies
- A I only
  - B II only
  - C I and II only
  - D II and III only
  - E I, II, and III
- 36 It can be inferred from the passage that some mechanisms that regulate internal body temperature, like sweating and panting, can lead to which of the following?
- A A rise in the external body temperature
  - B A drop in the body's internal fluid level
  - C A decrease in the osmotic pressure of the blood
  - D A decrease in the amount of renal water loss
  - E A decrease in the urine's salt content

### Passage XIII

#### Human Capital Theory

In the seventeenth-century Florentine textile industry, women were employed primarily in low-paying, low-skill jobs. To explain this segregation of labour by gender, economists have relied on the useful theory of human capital. According to this theory, investment in human capital—the acquisition of difficult job-related skills—generally benefits individuals by making them eligible to engage in well-paid occupations. Women's role as child bearers, however, results in interruptions in their participation in the job market (as compared with men's) and thus reduces their opportunities to acquire training for highly skilled work. In addition, the human capital theory explains why there was a high concentration of women workers in certain low-skill jobs, such as weaving, but not in others, such as combing or carding, by positing that because of their primary responsibility in child rearing women took occupations that could be carried out in the home.

There were, however, differences in pay scales that cannot be explained by the human capital theory. For example, male construction workers were paid significantly higher wage than female taffeta weavers. The wage difference between these two low-skill occupations stems from the segregation of labour by gender: because a limited number of occupations were open to women, there was a large supply of workers in their fields, and this “overcrowding” resulted in women receiving lower wages and men receiving higher wages.

- 37 The passage suggests that combing and carding differ from weaving in that combing and carding are
- A low-skill jobs performed by primarily by women employees.
  - B low-skill jobs that were not performed in the home.
  - C low-skill jobs performed by both male and female employees.
  - D high-skill jobs performed outside the home.
  - E high-skill jobs performed by both male and female employees.
- 38 Which of the following, is not supported by the human capital theory as explained in the passage?
- A Women were unlikely to work outside the home even in occupations whose hours were flexible enough to allow women to accommodate domestic tasks as well as paid labour.
  - B Parents were less likely to teach occupational skills to their daughters than they were to their sons.



- C Women's participation in the Florentine paid labour force grew steadily throughout the sixteenth and seventeenth centuries.
- D The vast majority of female weavers in the Florentine wool industry had children.
- E Few women worked as weavers in the Florentine silk industry, which was devoted to making cloths that required a high degree of skill to produce.
- 39 The author of the passage would be most likely to describe the explanation provided by the human capital theory for the high concentration of women in certain occupations in the seventeenth-century Florence textile industry as
- A well founded though incomplete.
- B difficult to articulate.
- C plausible but poorly substantiated.
- D seriously flawed .
- E contrary to recent research.

### Passage XIV

#### Native American Maps

Maps made by non-Native Americans to depict Native American land tenure, resources and population distributions appeared almost as early as Europeans' first encounters with Native Americans and took many form: missionaries' field sketches, explorers' drawings, and surveyors' maps, as well as maps rendered in connection with treaties involving land transfers. Most existing maps of Native American lands are reconstructions that are based largely on archaeology, oral reports, and evidence gathered from observers' accounts in letter, diaries, and official reports; accordingly, the accuracy of these maps is especially dependent on the mapmakers' own interpretive abilities.

Many existing maps also reflect the 150-year role of the Bureau of Indian Affairs (BIA) in administering tribal lands. Though these maps incorporate some information gleaned directly from Native Americans, rarely has Native American cartography contributed to this official record, which has been compiled, surveyed, and authenticated by non-Native American. Thus our current cartographic record relating to Native American tribes and their migrations and cultural features, as well as territoriality and contemporary trust lands, reflects the origins of the data, the mixed purposes for which the maps have been prepared, and changes both in United States government policy and in non-Native Americans' attitudes toward an understanding of Native Americans.

- 40 Which of the following best describes the content of the passage?
- A A chronology of the development of different methods for mapping Native Americans
- B A discussion of how the mapmaking techniques of Native Americans differed from those of Europeans
- C An argument concerning the present-day uses to which historical maps of Native American lands are put
- D An argument concerning the nature of information contained in maps of Native American lands
- E A proposal for improving the accuracy of maps of Native American lands
- 41 The passage mentions each of the following as a factor affecting current maps of Native American lands EXCEPT
- A United States government policy.
- B non-Native Americans' perspective on Native Americans.
- C origins of the information utilised to produce the maps.
- D changes in ways that tribal lands are used.
- E the reason for producing the maps.

- 42 The passage suggests which of the following about most existing maps of Native American lands?
- A They do not record the migrations of Native American tribes.
  - B They have been preserved primarily because of their connection with treaties involving land transfers.
  - C They tend to reflect archaeological evidence that has become outdated.
  - D They tend to be less accurate when they are based on oral reports than when they are based on written documents.
  - E They are not based primarily on the mapmakers' firsthand observations of Native American lands.

**Section B: Essay**

**Answer ONE of the following questions.**

**Your answer should be a reasoned and substantiated argument which justifies your response to the question.**

**You may use one sheet of paper for planning your essay.**

**Your essay must be no longer than 4 pages.**

1. Do you agree that there is art for the masses, and elite culture? How do you feel about being “the mass”?
2. Birth controls shouldn't be prescribed to teenagers without parental consent. What is your opinion?
3. Free press an essential ingredient of any true democracy. Do You Agree?
4. In the contest of global interdependence, security and sovereignty must be re-defined. How do you respond to this statement?
5. Web 2.0 has brought about a different method of communicating over the Web through ‘online social networking’ and this signals a shift in how people relate to the divide between private and public space. Discuss.

Mail us your answers in the attached excel sheet at

[key@prepgenie.co.uk](mailto:key@prepgenie.co.uk)

We will evaluate it for you. Once the evaluation is completed we will send you your scores along with the actual answer key.

**N.B.** Mention “*LNAT00 – Solutions*” in mail’s subject line