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فایل سوالات

EMAD JAFARI

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Passage Two

The number of parents choosing to have only one child is increasing in many parts of the world. In South Korea, the percentage of families with only one child is higher than ever. In fact the average number of children per couple has fallen to 1.19 children—significantly below the replacement level of 2.1 children. This follows a general trend in Asia where in many countries, e.g. Japan and China, couples are having on average fewer than two children. In Japan, the average number of children born per family has declined to 1.25 by 2005. This has led to government concerns about supporting an increasing population of elderly people in the future; it is predicted that by 2020, a third of population in Japan will be aged 65 or over. For some single-child parents, particularly those with busy careers, the pressure of devoting time and energy to a second child can seem too overwhelming, resulting in them electing to have no more children.

7. It is said that “one-child parents” is

- a) going to decline worldwide in future
- b) getting more common in some countries
- c) following the same pattern all over the world
- d) going to be a norm for most developed nations

8. South Korea is mentioned as an example of the countries

- a) with a decreasing number of multi-children families
- a) which have intentionally adopted the policy of one-child families
- c) which are seriously concerned about the new trend of one-child families
- d) with a definite family-planning policy

9. An important factor contributing to the increase of single-child families is claimed to be

- a) population explosion
- b) child-raising challenges
- c) increasing number of the elderly
- d) high rate of unemployment

10. The Japanese government is said to be..... the new trend.

- a) indifferent to
- b) complacent about
- c) dissatisfied with
- d) in favor of

11. Multi-children families in Asia

- a) follow their traditional birth rate
- b) are fewer than they used to be
- c) have replaced single-child families
- d) are no longer present

Passage Three

As developed nations move out of the industrial age into the information/conceptual age, there is an ongoing debate about how to best prepare children and youth for adult success in the twenty-first century. While there is a consensus that schools should play a major role in this process, there is less agreement about exactly what that role should be. Some believe that the primary focus of schools should be academic preparation of students, and that classroom teachers are primarily responsible for student academic achievement, and that schools should efficiently and effectively organize themselves toward that task. These efforts to improve schooling might be labeled "school reform" in that they accept that the desired outcome of schooling is academic achievement as measured by standardized tests of basic skills and that the focus of change should be on the practice of classroom teachers and school administrators.

Others believe a more holistic approach should prevail and that efforts of schools should be integrated with other social institutions such as family and community towards these more holistic ends. Efforts along these lines might be labeled 'school revisioning' in that there is an advocacy that schools focus on much wider range of desired outcomes (cognitive processing skills, emotional and social awareness and skills, moral character development). These approaches state that intellectual ability and academic achievement account for only about one-third of the variance related to adult success.

12. Regarding the youth and adults' success, the main role is given to

- a) social institutions
- b) educational systems
- c) the participants' efforts
- d) the whole society

13. The school reform movement focuses on

- a) more qualified school staff and practice
- b) construction of more academic standardized test
- c) development of cognitive processing skills
- d) family and community development

14. Addressing the two approaches, the writer seems to

- a) support the school reform movement
- b) advocate the school revisioning approach
- c) criticize both movements
- d) remain impartial

15. The advocates of the school revisioning movement argue that

- a) success is mostly achieved through intellectual ability
- b) schools have a minor role in one's final success
- c) social institutions are prior to school for education
- d) success is a multi-variable phenomenon

16. School reform and school revisioning approaches differ in that

- a) the former is more scientific-based
- b) the latter is more academic-based
- c) the former puts less importance on social institutions
- d) the latter considers a less important role for school systems

Passage Four

Until recently the study of human evolution was based entirely on the historical record of fossils and archeological findings. Understanding history by examining the available archives is infinitely better than speculating on the basis of preconceptions, but historical records, as we have already noted, are never complete. Furthermore, to paraphrase one of the advocates of molecular techniques, a fossil may or may not have left documents, but all of our molecules had ancestors. Consequently the recent use of molecular genetics to study human origins opens an exciting new window on the subject. In science, new and different perspectives frequently initiate the questioning of assumptions and die reinterpretation of older data, but a richer and more accurate understanding usually emerges. Study of the last several hundred thousand years of evolution of *Homo sapiens* is currently in such a dynamic state.

17. It is understood from this paragraph that studies of human evolution

- a) are limited to historical records
- b) tend to be dynamic nowadays
- c) should be based on archives
- d) should be based on archeological findings

18. The writer of this paragraph mostly supports..... in the study of human origin.

- a) the use of historical records
- b) speculations and preconceptions
- c) older data and assumptions
- d) the application of molecular genetics

19. 'such a dynamic state' (the last sentence) refers to the

- a) rejection of the assumptions based on the older data
- b) use of new perspective in investigation
- c) comparison and contrast of new and old records
- d) emergence of questions about human evolution

20. As to the study of human evolution in the past and at present, it is stated that

- a) the former is more one-dimensional than the latter
- b) the latter is less exciting than the former
- c) neither is multidimensional and precise
- d) both are dynamic, exciting and reliable

21. One of the advocates of molecular genetics..... in this passage.

- a) illustrates the drawbacks of the historical record approach
- b) wants the researchers to ignore archeological findings
- c) highlights the importance of human evolution
- d) rejects the reinterpretations of older data

Passage Five

Researchers surveyed about 550 female family planning providers and asked whether they used contraception, and what type they used. Study authors then compared these results with a 2006 to 2012 survey of U.S. women who were about the same age.

Out of the 335 family planning providers who used contraception, 42 percent used a long acting method of birth control, including IUDs and implants, whereas 6 percent of women in the general population used one of these methods.

"We are theoretically, the most educated group of people in this arena," said the study director." "And given that background, we take the most effective methods of birth control."

The researchers found that 40 percent of family planning providers used IUDs, and 2 percent used implants, which are inserted in the arm and prevent pregnancy by releasing certain hormones. Just 12 percent of family providers used birth control pills, compared with 21 percent of women in the general population. IUDs and implants are among the most effective forms of birth control. Less than 1 percent of women who use these methods will become pregnant each year, according to the Centers for Disease Control and Prevention.

Among typical users of birth control pills, about 9 percent will become pregnant each year, the CDC says. And condoms are even less effective in real-life use: about 18 percent of typical condom users become pregnant each year.

22. The participants in this study are said to be

- a) pregnant women
- b) would-be mothers
- c) female university graduates
- d) obstetricians and gynaecologists

23. According to these authors, most effective birth control method is the

- a) pill
- b) condom
- c) a combination of pill and condom
- d) intra-uterine device

24. Compared to average women, the number of family providers who use pills is.....

- a) much more
- b) almost half
- c) twice as many
- d) nearly the same

25. The study suggests that family planners are women in the general population to use a long lasting method.

- a) considerably fewer than
b) nearly as many as
c) seven times more than
d) almost the same in number as

**Part Two:
Vocabulary**

Directions

Complete the following sentences by choosing the best answer.

26. Unhygienic or dirty conditions..... diseases.

- a) focus on
b) derive from
c) recover from
d) give rise to

27. Some diseases, such as cancer, if..... early enough, are much easier to manage.

- a) reinforced
b) ignored
c) provoked
d) detected

28. Some studies have shown that laughter eases fear and anger by..... a sense of hope.

- a) diminishing
b) inducing
c) terminating
d) suppressing

29. It is pretty hard for an addict to resist the..... of the withdrawal symptoms.

- a) remission
b) commission
c) temptation
d) termination

30. It has been due to a lot of..... that scientists have found the origin of certain social problems.

- a) inquiries
b) disruptions
c) barriers
d) distractions

31. Trying to artificially..... mental changes with drugs is not commonly recommended.

- a) designate
b) trigger
c) dissolve
d) threaten

32. WHO has some experts who are very efficient in medical information around the world.

- a) disseminating
b) embracing
c) concealing
d) devoting

33. In order not to involve your personal attitudes in the results, you need to be when doing research.

- a) inconsistent
b) skeptical
c) impartial
d) biased

34. Patients with depression may feel..... with sadness and loneliness for no known reason.

- a) overwhelmed
b) overturned
c) overseen
d) overdone

35. The best way to ensure..... nourishment of our cells is to eat nutrient-dense foods.

- a) cordial
b) superficial
c) cardinal
d) optimal

36. Coronary heart disease can result in, Such as angina, heart attacks and heart failure.

- a) complications
b) contributions
c) conformations
d) configurations

37. Sitting down and writing about the thoughts and emotions could..... you to organize your mind.

- a) advise b) devise c) assist d) insult

38. There is not enough money to be used for all research proposals; so we need to use the budget

- a) vigorously b) irrationally c) irrelevantly d) sparingly

39. The loud noise outside..... the test-takers who were trying to concentrate on the exam.

- a) enlightened b) irritated c) aggregated d) confirmed

40. Excessive alcohol use can memory and cause damage to the brain.

- a) impair b) retain c) detain d) retrieve

1	a	11	b	21	a	31	b
2	c	12	b	22	d	32	a
3	b	13	a	23	d	33	c
4	c	14	d	24	b	34	a
5	a	15	d	25	c	35	d
6	b	16	c	26	d	36	a
7	c	17	b	27	d	37	c
8	a	18	d	28	b	38	d
9	b	19	b	29	c	39	b
10	c	20	a	30	a	40	a

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**Part One:
Reading Comprehension**

Direction

Read the following passages carefully. Each passage is followed by some questions. Complete the questions with the most suitable words or phrases (a, b, c & d) Base your answers on the information given in the passages only.

Passage One

A conservative estimate is that there are at least 300.000 people in Britain with alcohol-related problems. A recent survey on drinking in England and Wales found that 5% of men and 2% of women suffered from alcohol-related problems. People with serious drinking problems have an increased risk of dying which is between two and three times greater than that of the general population at (the same age and sex). Approximately one in five male admissions to acute medical wards directly or indirectly is due to alcohol. Between 30% and 40% of casualty attenders have blood alcohol concentrations above the present legal limit for driving. Up to one in five seemingly healthy men attending health screening programs are found to have biochemical evidence of heavy alcohol consumption, though they are a selected population coming mainly from the upper social classes. Of 2000 patients on the practice list of the average general practitioner, about 100 will be heavy drinkers. 40 will be problem drinkers, and 10 will be physically dependent on alcohol.

1. The writer seems to be alcohol-related problems in Britain.

- a) content with
b) a victim of
c) confused by
d) worried about

2. The writer's report on drinking problems in Britain

- a) is based on evidence
b) uses imaginary figures
c) is his personal judgment and estimate
d) describes the British society's health status

3. The writer refers to admissions to medical wards and casualty departments as drinking problems.

- a) the main risks of
b) some examples of
c) the best place for
d) ways of treating

4. Alcohol-related problems

- a) affect men and women similarly
b) may have some beneficial effects on women
c) hardly affect women with heavy alcohol consumption
d) have involved males more than females

5. Statistically speaking, physically dependent drinkers than heavy or problem drinkers.

- a) die sooner
b) are fewer in number
c) face fewer health risks
d) cause fewer social harms

Passage Two

Although psychiatric symptoms can be clearly bizarre, many are recognizable as part of normal experience. The situation is identical to the assessment of pain: a doctor cannot experience a patient's pain nor measure it objectively but is still able to assess its significance. A pattern can be built up by comparing the patient's reported pain- its intensity, quality and location- with observation of the patient's behavior and disability associated with it. Similarly, patient's complaints of 'feeling depressed' may be linked to specific events in their life, to a preventive sense of low self-esteem, or to somatic features such as disturbed sleep and diurnal variation in mood.

Another myth is that the vagueness of psychiatric features make diagnosis impossible. In fact, psychiatric diagnosis based on current classification systems are highly reliable. It is true that there are no pathognomonic signs in psychiatry- that is, most psychiatric signs in isolation have low predictive validity, as similar features may occur in several different disorders. It is the pattern of symptoms and signs that is paramount.

6. The writer believes that psychiatric symptoms

- a) can be objectively quantified
- b) may originate from patterns of pain
- c) are too complex to interpret and diagnose
- d) may follow a specific pattern

7. It is understood from the passage that psychiatric symptoms are

- a) subjective
- b) quantified
- c) difficult to detect
- d) reliably curable

8. Psychiatric symptoms and pain are similar in that both

- a) present more or less the same pattern
- b) can be followed to create a pattern
- c) result from comparable sources
- d) lead to identical diagnosis

9. What does "it" (line 5) refers to?

- a) intensity
- b) behavior
- c) observation
- d) disability

10. The writer..... the idea that mental disorders are difficult to diagnose.

- a) clearly questions
- b) implicitly supports
- c) takes a neutral view on
- d) takes a biased view regarding

Passage Three

The art of medicine deals with the whole gamut of doctor-patient relationship. Most patients think that high-tech medicine can do wonders for suffering humanity. While it can do a lot in social situations like emergency care, in all other areas, the art of medicine rules the roost. Even in an emergency, human compassion can do a lot to assist machines, which can appear quite frightening to the critically ill. In the outdoor, indoor, operation theater, labor room, during various investigations or in any survey of the community, everywhere, the doctor-patient relationship requires compassion, a caring attitude from the doctors, besides the communication skills. A surgeon, physician or any health care provider needs to be a good human being. A knife only cuts or a drug assists, along with the availability of best possible technology, drugs or other logistics. The vital forces of the body and the intense desire to live, or the positive attitude of the patient are what really count. Also other major factors such as concern, sympathy, compassion, assurance and other humane qualities of the doctor, which can be termed “the art of medicine”, are of much importance in practicing medicine. Diagnosing disease and choosing the best treatment certainly requires scientific knowledge and technical skills in health care professionals. But only this much won't do.

A medicine that cares or cures, helps or heals has an even greater consequence for humanity than that of merely mending, tending, patching, preventing the various ailments that are the result of being alive.

11. According to the passage, the art of medicine is the way doctors

- | | |
|-------------------------------|--------------------------------|
| a) behave toward patients | b) use modern technology |
| c) handle available logistics | d) diagnose and treat diseases |

12. The passage describes a contrast between

- | | |
|-------------------------------------|------------------------------------|
| a) medical expertise and technology | b) doctor and patient attitudes |
| c) ailments and health care | d) the art and science of medicine |

13. in line 2, “it” refers to

- | | |
|------------------------|--------------------------------|
| a) the art of medicine | b) doctor-patient relationship |
| c) high tech medicine | d) the whole gamut |

14. The author rejects the idea that medical knowledge and skill is

- | |
|--|
| a) vital if complemented by sympathy |
| b) the ultimate means of diagnosis and treatment |
| c) an essential part of emergency care |
| d) part of any health care provider's career |

15. It is said that the patient's motivation to live is more important than

- | | |
|-----------------------------|--------------------------------------|
| a) surgical tools and drugs | b) the doctor's sympathy and concern |
| c) communication skills | d) operating room skills |

Passage Four

Tomotherapy is a treatment designed for radiation therapy of various cancers. Its name comes from the Greek root for slice. Basically, it combines a CT or other type of scan with radiation therapy in such a way that the radiation dose can be altered to match the thickness of the tumor in a given image slice.

Tomotherapy is both intensely modulated and image guided. Intensity modulated radiotherapy or IMRT uses devices called collimators to adjust the amount of radiation delivered in a single dose. Image guided radiotherapy or IGRT, on the other hand, uses a scan (from a CT or another imaging modality) to adjust the dose based on the tumor size and shape.

While tomotherapy may or may not be the best treatment option in a given case, it is good to know that it is an option. It has now been a way to treat cancers for more than 10 years and there are over 300 sites across the US, Canada, Europe and Asia that offer this new kind of cancer treatment.

16. The thickness of the tumor..... the radiation dose to be used.

- a) adopts b) determines c) absorbs d) intensifies

17. Collimators are used to..... the amount of radiation required in a single dose.

- a) collect b) regulate c) filter d) combine

18. Tomotherapy is referred to as a/an..... for treating cancers.

- a) unique device b) gold standard
c) possible choice d) outdated option

19. The writer intends to..... tomography as a treatment method.

- a) criticize b) dismiss
c) introduce d) ignore

Passage Five

Many studies of pain mechanism have resulted in numerous theories as to how it functions, and such research continues, but variations in pain are so numerous and individual responses so diverse that a precise understanding of the subject still eludes health professionals. Some theories about the pain mechanism that have evolved are the gate control theories and the pattern theories. The gate control theory of pain is an attempt to explain the complexity of the nervous system. It states that pain signals reaching the nervous system excite a group of small neurons that form a "pain pool" When the total activity of these neurons reaches a minimum level, a theoretic gate opens up and allows the pain signals to proceed to higher brain centers. The pattern theory holds that the intensity of a stimulus evokes a specific pattern, which is interpreted by the brain as pain. This perception is the result of the intensity and frequency of stimulation of a nonspecific end organ. One of the biggest problems in pain research is that the actual cause of pain originating at the peripheral level is poorly understood. Some authorities believe that bradykinin and histamine, two chemical substances elaborated by the body, cause pain. Recently discovered pain killers produced naturally by the body are the enkephalins and the endorphins.

20. Health professionals..... of pain mechanism.

- a) have already identified the secrets
b) still lack a clear knowledge
c) are no longer interested in the study
d) clearly challenge modern theories

21. Variations in pain tend to..... the formulation of a pain theory.

- a) facilitate b) complicate
c) regulate d) accelerate

22. The gate control theory considers a/an..... role for neurons forming a “pain pool.

- a) intermediary
- b) reactionary
- c) suppressive
- d) depressive

23. The pattern theory is a/an..... the gate control theory.

- a) duplicate of
- b) modified version of
- c) alternative to
- d) substitute for

24. Pain in the pattern theory is..... the force of a stimulus.

- a) conducive to
- b) removed by
- c) producer of
- d) rooted in

25. Enkephalins and the endorphins are said to..... bradykinin and histamine.

- a) have the same properties as
- b) contribute to the release of
- c) have the same functions as
- d) counteract the effect of

Part Two: Vocabulary

Directions

Complete the following sentences by choosing the best answer.

26. A new career can initially pose a big..... but gradually gets easier over time.

- a) allowance
- b) remark
- c) favor
- d) challenge

27. As a reward to his hard work and bright mind, he was..... to do his PhD course in two years, which is one year shorter than the minimum requirement.

- a) prohibited
- b) submitted
- c) restricted
- d) permitted

28. There is a way to naturally..... muscle growth and function.

- a) promote
- b) terminate
- c) advocate
- d) contaminate

29. Because of the..... manner of one of the audience, the lecturer had to leave the conference hall.

- a) disturbing
- b) favourable
- c) supportive
- d) attractive

30. Before implementing a project, we should consider both its social and environmental

- a) affiliations
- b) implications
- c) replications
- d) inclinations

31. Transmission of pathogenic organisms to other people, directly and indirectly, may lead to the..... of an infection.

- a) incubation
- b) outbreak
- c) injection
- d) outcome

32. Children at this age would not..... their questioning; they are very curious about their surroundings.

- a) argue
- b) resume
- c) inflate
- d) cease

Part One

Reading Comprehension

Directions

Read the following passages carefully. Each passage is followed by some questions. Complete the questions with the most suitable words or phrases (a, b, c & d). Base your answers on the information given in the text only.

Passage One

The ability to laugh, play, and have fun with others not only makes life more enjoyable but also helps you solve problems, connect with others, and be more creative. People who incorporate humor and play into their daily lives find that it renews them and all of their relationships.

Life brings challenges that can either get the best of you or become playthings for your imagination. When "you become the problem" and take yourself too seriously, it can be hard to think outside the box and find new solutions. But when you play with the problem, you can often transform it into an opportunity for creative learning.

Playing with problems seems to come naturally to children. When they are confused or afraid, they make their problems into a game, giving them a sense of control and an opportunity to experiment with new solutions. Interacting with others in playful ways helps you retain this creative ability.

1. The text is..... playing and having fun in life.

- a) in favor of
- b) critical of
- c) impartial about
- d) skeptical about

2. As part of its benefits, a happy approach to life can help the individual to get more

- a) destructive
- b) apprehensive
- c) innovative
- d) aggressive

3. The first paragraph views humor as a/an..... in people's daily lives.

- a) treatment
- b) possible obstacle
- c) useful option
- d) problem

4. The ideas in the second paragraph are..... those in the first paragraph.

- a) identical to
- b) irrelevant to
- c) underestimations of
- d) elaborations of

5. According to the passage, life challenges..... the individual.

- a) are unlikely to cause harm to
- b) could hardly be transformed into chances by
- c) automatically bring about prosperity to
- d) could be changed into opportunities by

6. The text implies that when handling problems through play,

- a) children adopt a more successful approach
- b) adults and children follow more or less similar methods
- c) children are advised to follow adults' approach
- d) adults usually interact with children

Passage Two

In the developed world, targeting three disease-linked behaviors could provide huge benefits in human and financial terms. The first of these is tobacco smoking, causing death through lung cancer and vascular disease as well as chronic obstructive pulmonary diseases. Eating too many fatty and sugary foods and not exercising is one of the main causes of diabetes. According to the WHO, diabetes is likely to be one of the most substantial threats to human health in the 21st century, with a projected financial cost of \$ 192 billion by 2020 for the United States alone. The final behavior is a reduction in alcohol abuse. Studies show that the misuse of alcohol can be responsible for up to 5% of hospital admissions and can impact significantly on heart disease, diabetes and liver failure. The medical profession has been aware for long time that population health is improved by prevention. With a rapidly aging population, it is important that a similar conclusion is reached by governments in the developed world.

7. The first sentence implies..... unhealthy habits.

- a) the necessity of change in people's
- b) minimizing the huge benefits of
- c) discovering three diseases leading to
- d) the provision of three behaviors causing

8. According to the passage, the WHO has..... the amount of money paid for 4 diabetes in the USA.

- a) financed
- b) covered
- c) estimated
- d) provided

9. The author considers alcohol misuse as a

- a) physical and emotional disease
- b) disease-causing behavior
- c) cost-effective behaviour
- d) liver-strengthening factor

10. The reason for one out of 20 admissions to hospital is

- a) tobacco smoking
- b) heart disease
- c) lack of exercise
- d) alcohol abuse

11. "Similar conclusion" in the last sentence refers to

- a) role of preventive medicine in health promotion
- b) responsibility of governments in reducing hospital admissions
- c) impact of preventive medicine in slowing people's rapid aging
- d) role of governments in taking care of the ageing population

Passage Three

Another critical factor that plays a part in susceptibility to colds is age. A study done in the University of Michigan, School of Public Health, revealed particulars that seem to hold true for the general population. Infants are the most cold-ridden group, averaging more than six colds in their first year. Boys have more colds than girls up to age three. After the age three, girls are more susceptible than boys, and teenage girls average three colds a year to boy's two.

The general incidence of cold continues to decline into maturity. Elderly people who are in good health have as few as one or two colds annually. One exception is found among people in their twenties, especially women, who show a rise in cold infections, because people in this age group are most likely to have young children. Adults who delay having children until their thirties and forties experience the same sudden increase in colds.

12. The paragraph before the first paragraph most probably is about..... Colds.

- a) diseases hardly related to
- b) numerous benefits of
- c) factors affecting vulnerability to
- d) methods of preventing

13. The results of the Michigan study

- a) have numerous inconsistencies
- b) contradict the results of previous studies
- c) are limited to high school children
- d) are related to different age groups

14. According to this passage..... are most likely to catch colds.

- a) male and female babies
- b) mature young girls
- c) teenage girls
- d) the elderly

15. The writer in this passage,

- a) is highly critical of the issue
- b) is unaware of the topic
- c) considers his personal views
- d) tries to remain objective

16. The word “particulars” in paragraph 1, (line 2) is closest in meaning to

- a) minor errors
- b) specific facts
- c) small distinctions
- d) experienced individuals

Passage Four

Nanoparticles are materials with overall dimensions in the nanoscale, i.e. under 100 nm. In recent years, these materials have emerged as important players in modern medicine, with applications ranging from contrast agents in medical imaging to carriers for gene delivery into individual cells. Nanoparticles have a number of properties that distinguish them from bulk materials simply by virtue of their size, such as chemical reactivity, energy absorption, and biological mobility.

Nanoparticles are also referred to as "zero-dimensional" nanomaterials. This definition arises from the fact that all of their dimensions are in the nanoscale, as opposed to one-dimensional nanomaterials, which have one dimension larger than the nanoscale (such as nanowires and nanotubes), and two-dimensional nanomaterials, which have two dimensions larger than the nanoscale (such as self-assembled monolayer films).

The benefits of nanoparticles to modern medicine are numerous. Indeed, there are some instances where nanoparticles enable analysis' and therapies that simply cannot be performed otherwise. However, nanoparticles also bring with them unique environmental and societal challenges, particularly in regard to toxicity.

17. In the passage, “overall dimensions” refer to

- a) less than 100 nm
- b) zero-dimensional particles
- c) one-dimensional particles
- d) equal to 100 nm

18. Nanoparticles are different from bulk materials in all the following except

- a) biological mobility
- b) chemical reaction
- c) energy absorption
- d) gene delivery

19. “such as” in line 5 refers to

- a) size of materials
- b) bulk materials
- c) nanoparticles
- d) properties

20. We understand from the passage that, despite their advantages, nanoparticles have had.....

- a) extensive uses
- b) environmental benefits
- c) drawbacks
- d) fatalities

21. Nanowires are examples of

- a) zero-dimensional nanomaterials
- b) one-dimensional nanomaterials
- c) nanotubes
- d) nanoscales

Passage Five

Most human diets contain between 10 and 15 percent of their total calories as protein. The rest of the dietary energy comes from carbohydrates, fats and in some people, alcohol. The proportion of calories from fat varies from 10 percent in poor communities to 40 percent or more in rich communities.

In addition to providing energy, fats have several other functions in the body. The fat-soluble vitamins, A, D, E, and K, are dissolved in fats, as their name implies. Good sources of these vitamins have high oil or fat content, and the vitamins are stored in the body's fatty tissues. In the diet, fats cause food to remain longer in the stomach, thus increasing the feeling of fullness for some time after a meal is eaten. Fats add variety, taste, and texture to foods, which accounts for the popularity of fried foods. Fatty deposits in the body have an insulating and protective value. The curves of the human female body are due to strategically located fat deposits.

Whether a certain amount of fat in the diet is essential to human health is not definitely known. When rats are fed a fat-free diet, their growth eventually ceases, their skin becomes inflamed and scaly, and their reproductive systems are damaged. Two fatty acids, linoleic and arachidonic acids prevent these abnormalities and hence are called essential fatty acids. They also are required by a number of other animals, but their roles in human beings are debatable. Most nutritionists consider linoleic fatty acid an essential nutrient for humans.

22. It is implied that

- a) poor people eat less fatty foods
- b) certain fatty acids cause damage to the body
- c) fats hinder the breakdown of vitamin K
- d) a certain amount of fat is essential to health

23. Body fats serve all of the following functions except for

- a) causing a feeling of fullness
- b) insulating and protecting the body
- c) providing energy
- d) controlling weight gain

24. If rats are nourished with diets without fat, they

- a) stop growing
- b) become more reproductive
- c) lose body hair
- d) increase body curve

25. The phrase "these abnormalities" (in line 15) refers to

- a) well-located fat deposits
- b) consequences of fried foods
- c) curves on the human female body
- d) problems due to fat-free diets

**Part Two:
Vocabulary**

Directions

Complete the following sentences by choosing the best answer.

26. Taking time to rest the mind and nervous system via meditation can..... the autonomic nervous system tone, which is an essential requirement for getting and staying well.

- a) promote b) diminish c) eliminate d) invade

27. This farm soil contains all valuable..... needed for the growth of plants.

- a) ingredients b) calories
c) herbs d) nutrients

28. The patient could not forget the shock of the accident since he frequently had concerning what had happened to him.

- a) setbacks b) washback c) feedback d) flashbacks

29. It is still unclear whether prenatal and infant diets have any appreciable influence on a child's future..... to dental caries.

- a) accessibility b) accountability
c) susceptibility d) feasibility

30. Exercise is the most efficient way to build up and a reasonable level of physical fitness.

- a) maintain b) reverse c) penetrate d) hinder

31. Although humor and laughter cannot provide a definite cure for diseases, they are a sure means of..... fear, distress and anxiety.

- a) prolonging b) precipitating
c) moderating d) elevating

32. After a prolonged discussion of the problem, the physicians came to a sound

- a) integrity b) remedy c) subsistence d) resistance

33. Some animals such as mice and insects are very.....; under proper conditions they quickly increase in number.

- a) dormant b) virulent c) prolific d) beneficial

34. She suddenly lost her..... and fell on the floor.

- a) confusion b) equilibrium
c) delusion d) adherence

35. When the body is healthy, its various substances and energies are in balance, both internally and in relation to the external environment.

- a) inadequate b) improbable
c) heterogeneous d) harmonious

36. With the..... popularity of anti-bacterial hand gels and washing products, it is easy to believe that dirt will soon be ineffective.

- a) threatening b) diminishing
c) soaring d) declining

**Part One:
Reading Comprehension**

Directions

Read the following passages carefully. Each passage is followed by some questions. Complete the questions with the most suitable words or phrases (a, b, c & d)

Base your answers on the information given in the passage only.

Passage One

The translational biochemical theory of depression was the biogenic monoamine hypothesis which has been the main framework for explaining depression for the last 25 years. This theory was originally based on the observation that reserpine, which depletes monoamine neurotransmitters (e.g. noradrenaline and serotonin) in the brain, produces depression. This hypothesis proposes that depression results from a deficiency in these monoamines at critical synapses in the brain. It is supported by the action of antidepressant drugs, which relieve depression by increasing the turnover of monoamine neurotransmitters, but it cannot explain the delayed action of these antidepressant drugs.

1. Experiments have shown that reserpine

- a) reduces noradrenaline and serotonin
- b) can serve as a monoamine
- c) can function as an anti-depressant drug
- d) promotes the relief of depression

2. The hypothesis mentioned explains the cause of depression as the

- a) use of antidepressants
- b) inadequacy of monoamines
- c) turnover of monoamines
- d) critical synapses in the brain

3. It (line 7) refers to

- a) action of antidepressant drugs
- b) turnover of monoamine
- c) hypothesis
- d) depression

4. Antidepressant drugs relieve depression by

- a) restoring inadequacy of monoamines
- b) suppressing the lost neurotransmitters
- c) enhancing the deficiency of neurotransmitters
- d) making the synapses in the brain critical

5. The mentioned hypothesis cannot account for the

- a) depletion of neurotransmitters
- b) way antidepressant drugs work
- c) reasons behind the incidence of depression
- d) slow functioning of antidepressant drugs

Passage Two

A variety of theorists, using case studies, experiments and a variety of research methods, have attempted to better understand the sources of creativity and innovation in individuals. While these efforts have contributed significantly to broadening our comprehension of the subject, there is nonetheless disagreement between theorists and many hypotheses that remain to be fully substantiated. The challenge lies partially in the nature and definition of creativity itself. Broad, complex and multi-faceted, creativity can take many forms and can be found within a variety of contexts. It is embodied by individuals with a broad range of personal characteristics and backgrounds. It appears that the only rule is that there are no hard and fast rules concerning the sources of creativity.

Cognitive psychology provides the most prolific, and developed five of the sources of individual creativity. In 1950. J.P. Guilford, (hen President of the American Psychological Association, stated in his presidential address that the topic of creativity deserved greater attention, Following this seminal call to action, psychological research on creativity expanded significantly. These efforts have concentrated on the cognitive processes behind creativity, the characteristics of creative people, the development of creativity across the individual life span, and the social environments most conducive to creativity.

6. Regarding the sources of creativity, the current view is that

- a) one's individual characteristics are the most important factors
- b) the social environment where one is brought up is more significant
- c) cognitive processes are the underlying source
- d) we have failed to definitely determine them

7. One problem regarding identifying the sources of creativity is the

- a) compromise achieved in forming theories
- b) ambiguity in creativity definition
- c) existence of hard and fast rules
- d) limited variables affecting creativity

8. it is said that the hypotheses on the sources of creativity are

- a) quite comprehensive
- b) too general to prove
- c) limited in most aspects
- d) yet to be verified

9. According to Guilford, creativity

- a) requires greater focus
- b) should be redefined
- c) basically results from cognitive processes
- d) is more developed through nurture

10. The paragraph is mainly related to

- a) origins of creativity
- b) cognitive psychology
- c) simplicity of innovation
- d) mental theories and hypotheses

Passage Three

Over the next decade, I suspect you will start to see a huge advertising blitz highlighting the need to treat and manage sarcopenia (muscle wasting). There will be a lot of discussion about mitochondria- the little organelles or "energy generators" that reside in each cell. Mitochondria combine oxygen and nutrients to create fuel for cells.

Mitochondria don't operate on their own, independently from the rest of the cell. They have their own DNA and repair systems and multiply on their own. Over time, their genetic material mutates and the number of mutations overwhelms their ability to make necessary repairs. As a result, mitochondria start to malfunction and die. In the process, muscle cells shrink and die. Many in the scientific community think this is the underlying cause of aging.

The pharmaceutical industry is working on drugs that counteract the damage from mutations and help preserve mitochondrial function. We have seen many similar situations time and time again with drugs to reduce cholesterol, increase bone density, and so on. In every case, the results are underwhelming and the side effects very often outweigh the benefits. Changing and artificially manipulating body chemistry can have miraculous effects in the short term. And it can definitely be a godsend in emergency situations. But long-term manipulation, or what the pharmaceutical industry now calls "managing a disease", is not always so advantageous (at least to the patient anyway).

11. The author thinks that one can slow the aging process by

- a) taking conventional drugs
- b) controlling mitochondria erosion
- c) reducing cholesterol level
- d) manipulating body chemistry

12. Mitochondria are considered to be..... of each cell.

- a) repair system
- b) nutrient consumer
- c) energy source
- d) material filler

13. "It" in line (15). refers to

- a) drugs effects
- b) body chemistry
- c) changing mitochondria
- d) manipulating cholesterol level

14. The phrase "a godsend" is used to drug use.

- a) promote long-term
- b) praise short-term
- c) blame
- d) deny

15. All of the following are true except that mitochondria

- a) can repair themselves
- b) can multiply on their own
- c) are independent of other cells
- d) are muscle cell generators

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Passage Four

According to a new study, mutations in genes that occur spontaneously may contribute to congenital heart diseases in children. These mutations may contribute to about 10 percent of cases of congenital heart disease in children, which is the most common type of birth defect in the United States, the study said. About 40,000 babies are born each year with congenital heart disease.

While some chromosomal abnormalities (such as Down syndrome) and infections during pregnancy are known to cause congenital heart disease, the new study shows that spontaneous gene mutations during fetal development affect the development of brain and heart, and may lead to congenital heart disease in children with healthy parents.

In the study, researchers looked at the rate of spontaneous mutations in 362 children with severe congenital heart disease, 264 healthy children and parents of both groups.

Although children in both groups had about the same number of spontaneous mutations, the locations of those mutations were markedly different in the two groups. "The mutations in patients with congenital heart disease were found much more frequently in genes that are highly expressed in the developing heart," said study researchers Christine Seidman, a Howard Hughes Medical Institute investigator.

This finding provides insights for future research, and may someday lead to better treatment options the researchers said.

16. Reading the passage, we understand that congenital heart diseases

- a) are caused by gene mutations
- b) must be inherited from a parent
- c) arise due to conception
- d) mostly result from chromosomal abnormalities

17. The commonest anomaly at birth in American children is

- a) birth defect
- b) heart disease
- c) gene mutation
- d) chromosomal abnormality

18. Down syndrome is mentioned as an example of

- a) chromosomal defects
- b) pregnancy infections
- c) congenital heart diseases
- d) inborn heart defects

19. The disease in question is even seen in children with

- a) healthy parents
- b) afflicted parents
- c) a bad gene in both parents
- d) a defective gene in one parent

20. A good title for the passage is

- a) 10 percent of American babies suffer from heart disease
- b) Spontaneous gene mutations linked to kid's heart defects
- c) American babies: highest percentage in congenital heart disease
- d) Pregnancy chromosomal abnormalities due to heart defects

Passage Five

Like milk, yogurt contains important nutrients such as protein and calcium. Traditional yogurt is made by adding two bacterial cultures to milk to "ferment" the lactose into lactic acid, giving the product a tart, sour flavor and creating the thick consistency. If the yogurt is chilled rather than heated after fermentation, the bacteria remain alive and the product can be labeled as containing "live" or "active" cultures, which makes it a probiotic (i.e good for your gut). Studies show that live, active probiotic cultures can improve digestive health and regulation of the immune system. The practice of choosing a healthy yogurt is all about checking the nutrition facts (paying attention to added sugars and protein content) and the ingredient list (to avoid additives and sweeteners). While common ingredients like pectin and guar gum are derived from plant sources, their presence is a sign of a poorer-quality product. Sugar will show up in most flavored yogurts, so you might consider choosing a plain yogurt and adding your own fruit of berries. If you are choosing a flavored yogurt, seek one with low sugar content. Synthetic sweeteners like high-fructose com syrup should be completely avoided. Additionally, choose organic whenever possible. If organic is not an option, look for the words "rBGH-free", "hormone-free" or "grass-fed" on the label.

21. The passage mainly focuses on..... of yogurt.

- a) benefits
- b) sweeteners
- c) complications
- d) preservatives

22. The passage recommends yogurt

- a) with synthetic flavour
- b) free of hormone
- c) with active culture
- d) with com syrup

23. Bacterial culture is used as something

- a) to be avoided
- b) increasing thickness
- c) giving flavour
- d) to preserve ingredients

24. The writer believes that "pectin" is

- a) a plant product and beneficial
- b) a plant product but harmful
- c) synthetic but beneficial
- d) organic but high in fructose

25. In buying dairy products..... yogurt should be avoided.

- a) fructose-added
- b) probiotic-contained
- c) flavor-added
- d) guar-derived

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**Part Two:
Vocabulary**

Directions

Complete the following sentences by choosing the best answer.

26. Despite its popular acceptance, the theory that inactivity causes obesity evidence.

- a) lacks b) provides c) possesses d) aggregates

27. The doctor assessed all possible solutions to choose the best

- a) complication b) alternative
c) principal d) compliment

28. Reviewing the last 8 months' events, one can easily..... that another manager will be appointed by administrative board sooner or later.

- a) anticipate b) elaborate c) emancipate d) appreciate

29. The teacher is going to..... a class survey to find out the level of awareness of the students about endangered animals.

- a) contract b) intervene c) devote d) conduct

30. People are advised to avoid adverse emotions since they tend to..... the immune system.

- a) potentiate b) depress c) enhance d) appreciate

31. Treatment of some diseases consists of abstinence and multiple vitamin

- a) supplementation b) resistance
c) deficiency d) tolerance

32. Toxins can harm our cells if they are..... or absorbed into our bloodstream.

- a) inhaled b) infested
c) reversed d) rehearsed

33. The presenting signs and symptoms of the patient were..... enough to help physicians to achieved proper diagnosis.

- a) convincing b) inconclusive
c) inadequate d) pervasive

34. In medical practices, diagnosis..... treatment as a rule.

- a) emerges from b) precedes
c) contradicts d) rules out

35. Although he is not highly educated, his talent..... his deficiency; he is usually successful in his affairs.

- a) compensates for b) refers to
c) searches for d) contributes to

36. Governments are expected to..... the laws that are in conflict with the community's benefits,

- a) adopt b) abolish c) achieve d) acquire

37. Elevated workplace noises can cause numerous health problems like hearing impairment,

hypertension, and..... sleep disturbance.

- a) prudence
c) indulgence
- b) extravagance
d) annoyance

38. Flexibility begins to..... with age as connective tissues stiffen, muscles shorten and joints become drier as synovial fluid dries up.

- a) disseminate
c) deteriorate
- b) consolidate
d) upgrade

39. The manager's suggestion appeared so that it aroused the committee members' interest and appreciation.

- a) restricting
b) confusing
c) intriguing
d) conflicting

40. Due to the lack of sufficient evidence, the physicians..... that the cause of the disease may be a virus.

- a) substantiated
c) calculated
- b) commanded
d) postulated

1	a	11	b	21	a	31	a
2	b	12	c	22	c	32	b
3	c	13	-	23	c	33	a
4	a	14	b	24	b	34	b
5	d	15	d	25	a	35	a
6	d	16	a	26	a	36	b
7	b	17	b	27	b	37	d
8	d	18	a	28	a	38	c
9	a	19	a	29	d	39	c
10	a	20	b	30	b	40	d

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