

Part I. Question 1 to 10, please choose the answer closest to the underlined word or phrase. Question 11 to 15, please choose the answer that best completes the sentence. One Answer Only. 2 points.

1. Some of the **potential** dangers to cows treated with synthetic bovine growth hormone were brought into light through the effort of some scientist.
(A) related (B) possible (C) certain (D) obvious
2. As more U.S workers spend their days at keyboards, hand injuries and lawsuits are **multiplying**.
(A) increasing (B) minimizing (C) boundary-crossing (D) profit-making
3. There are several **bodies** that match volunteers with voluntary groups, including the National Volunteering Centre.
(A) organizations (B) remains (C) people (D) motivations
4. Piaget believed that we go through four stages in understanding the world. Each of the stages is age-related and consists of **distinct** ways of thinking.
(A) new (B) simple (C) different (D) exact
5. Some people think that spoken language is **transient** but writing tends to last because of its physical medium (characters on some surface).
(A) unimportant (B) temporary (C) interesting (D) clear
6. But what most prevents women from reaching the boardroom, say bosses and headhunters, is lack of **hands-on** experience of a firm's core business.
(A) significant (B) available (C) tested (D) practical
7. Manufactured in the **tranquil** New England town of Concord, New Hampshire, the famous Concord Coach came to symbolize the Wild West.
(A) peaceful (B) bustling (C) industrial (D) tiny
8. With oil prices shooting up, the demand for big cars is **dwindling**. Now compact cars are on great demand.
(A) depressing (B) surpassing (C) decreasing (D) swirling
9. All of this she conferred on me without ever **setting foot in** the kitchen of her house.
(A) leaving (B) dressing (C) entering (D) preparing
10. In choosing your career, you should follow your heart, but you also need to be **rational**.
(A) making decisions based on intelligent thinking (B) making decisions using strong emotion of feeling
(C) making decisions because of relationships (D) making decision because of profits
11. _____ abolishing death penalty is a global trend, the public is so polarized over the issue that it requires more discussion.
(A) Because (B) Whereas (C) Although (D) In addition to
12. Women now often work areas _____ medicine, business management and higher education, which would not have been possible 100 years ago.
(A) regardless of (B) in virtue of (C) due to (D) such as
13. Both the National Cancer Institute and the World Health Organization say there isn't evidence to support the assertion that cell phones are a _____ threat.
(A) health public (B) healthy public (C) public-health (D) publically health
14. _____ on barren slopes can help prevent erosion.
(A) Planting trees (B) For trees to be planted (C) In order to plant trees (D) Trees are planted
15. Almost four in five people around the world believe that _____, a poll for the BBC World Service suggests.
(A) access the Internet is a fundamental right (B) that access to the Internet is a fundamental right
(C) fundamental right accessing the Internet is (D) the fundamental right is access the Internet

II. Question 16 to 25, please choose the best answer to fill each of the numbered blanks in the passages. 2 points each.

People communicate in many different ways and yawning is one important means of 16 communication. It gives many different 17 to people and everyone yawns. Some birds, reptiles, fish and most mammals also yawn. However, the reason why we do it is still a mystery. There is also very little research available on yawning as for most people, it is not a problematic 18. Here are a few things that are known about yawns: 1.) The 19 duration of a yawn is about six seconds; 2.) in humans, the 20 yawn happens about eleven weeks after conception; 3.) Yawns become contagious to people between the first and second years of life.

16. (A) audio (B) friendly (C) non-verbal (D) scenario
 17. (A) messages (B) funs (C) challenges (D) experiments
 18. (A) resistance (B) repeat (C) reflex (D) rejection
 19. (A) critical (B) analytical (C) terminal (D) average
 20. (A) most difficult (B) earliest (C) most fundamental (D) experiential

Culture shock can be an excellent lesson 21 human differences. The reason culture shock occurs is that we are not prepared for these differences. 22 the way we are taught in our culture, we are all ethnocentric. This term comes from the Greek root ethnos, 23 a people or group. Thus, it refers to 24 our outlook or world view is centered on our own way of life. Ethnocentrism is the belief that one's own patterns of behavior are the best: the most natural, beautiful, right, or important. Therefore, other people, 25 that they live differently, live by standards that are inhuman, irrational, unnatural, or wrong.

21. (A) on relative values and understanding (B) in relative values and in understanding
 (C) about relating values and on understanding (D) by means of relative values and understanding
 22. (A) Because of (B) Because (C) In the event of (D) In spite of
 23. (A) it means (B) it is meaning (C) meaning (D) by meaning
 24. (A) that the fact (B) the fact that (C) the fact (D) the fact that is
 25. (A) to the extend (B) by and large (C) more or less (D) drawing a line

III. Reading Comprehension. In this part, you will read several passages. Each one is followed by a number of questions. Question 26 to 40, you should choose the ONE best answer to each question. 2 points each.

Dariusz Leszczynski, a research professor at Finland's Radiation and Nuclear Safety Authority in Helsinki, has done studies indicating that radio frequency radiation may create a stress reaction in the cells that line blood vessels, leading to a dangerous breach in the blood-brain barrier. "Mobile-phone radiation may be able to indirectly hurt cells, perhaps by interfering with their ability to repair normal DNA damage," he says. "Given the scientific uncertainty, it's premature to say the use of cell phones is safe."

If radio frequency radiation increases the chances of developing brain cancer, it should show up in long-term studies of cell-phone users. But many epidemiological studies have found no clear connection, including a 2007 Danish Cancer Society study of 421,000 cell-phone users, which led many in the media to conclude that mobiles are harmless. To date, "peer-reviewed scientific evidence has overwhelmingly indicated that wireless

devices do not pose a risk," says John Walls, a spokesman for CTIA, a global wireless association.

26. According to Prof. Dariusz Leszczynski,

- (A) whether or not the use of cell phones is safe is still uncertain.
- (B) it is proved that cell phone would impair normal DNA.
- (C) Using cell phones will block blood vessels.
- (D) The research on cell phones is not reliable.

27. The passage following these two passages might be about

- (A) the autobiography of Dariusz Leszczynski.
- (B) problems with many of these studies.
- (C) the development of brain cancer.
- (D) peer review of cell phones.

While fats have lately acquired a bad image, one should not forget how essential they are. Fats provide the body's best means of storing energy, a far more efficient energy sources than either carbohydrates or proteins. They act as insulation against cold, as cushioning for the internal organs, and as lubricants. Without fats, energy would have no way to utilize fat-soluble vitamins. Furthermore, some fats contain fatty acids that contain necessary growth factors and help with the digestion of other food.

An important consideration of fat intake is the ratio of saturated fats to unsaturated fats. Saturated fats, which are derived from dairy products, animal fats, and tropical oils, increase amount of cholesterol in the blood. Cholesterol may lead to coronary heart disease by building up in the arteries of the heart. However, unsaturated fats, derived from vegetable oils, tend to lower serum cholesterol if taken in a proportion twice that of saturated fats.

The consumption of a variety of fats is necessary, but the intake of too much fat may lead to a variety of health problems. Excessive intake of fats, like all nutritional excesses, is to be avoided.

28. Comparing with carbohydrates or proteins, fats

- (A) store food more efficiently.
- (B) deserve their bad image.
- (C) consume more oils.
- (D) provide more fluids.

Which of the followings is the main idea of

29. The main idea of the third paragraph is that

- (A) people are eating less and less fat today.
- (B) fats should be eliminated.
- (C) excessive consumption of fats may be dangerous to one's health.
- (D) fats taken in the proper proportion may reduce serum cholesterol.

30. With which of the following is the whole passage primarily concerned?

- (A) The role of fats in human health
- (B) The dangers of cholesterol
- (C) The benefits of fats in the diet
- (D) The importance of good nutrition

Gender Equity

(1) In the past decade, increasing attention has been paid to the issue of gender equity in the science, technology, engineering, and mathematics (STEM) fields. Research publications, including the American Association of University Women Educational Foundation's Tech Savvy (2000) and Women at Work (2003), have documented the troubling shortage of girls and women preparing to work in these fields. In response to this "**shrinking pipeline**" of girls and women in STEM, a wide array of programs and strategies has been promoted and funded by governmental and nongovernmental organizations.

(2) The AAUW Educational Foundation and the National Science Foundation are among the top supporters of gender equity projects in the STEM fields. In the last decade alone, these two foundations have

invested nearly \$90 million to fund more than 400 projects specifically aimed at increasing the participation of girls and women in STEM fields. This body of projects presented a unique opportunity to explore the nature of gender equity intervention projects in STEM. Until now, no comparable survey of gender equity intervention projects in STEM has been done.

(3) The research for this report, led by Yasmin Kafai and a team of researchers at the University of California, Los Angeles, was guided by several overarching questions: What types of projects have been funded within and across the various STEM disciplines? Are there areas where we have concentrated our efforts, and areas we have overlooked? What patterns emerge among the project types and disciplines?

(4) The findings document impressive efforts in preparing girls and women for science, technology, engineering, and mathematics studies and careers and demonstrate a rich and diverse body of gender equity intervention projects within all STEM disciplines. About two-thirds of the projects involved extracurricular informal learning activities such as museum visits and field trips. Equally important were mentoring activities in many forms, ranging from traditional one-to-one to large-scale online versions, and professional development activities, such as course taking and network building, that were successfully integrated into projects.

(5) At the same time, the findings reveal some troubling trends. Many projects focused predominantly on career advice without providing access to necessary skill and content development. A majority of projects occurred outside the school curriculum. While such extracurricular projects can be effective and valuable, the overall lack of integration into the school curriculum suggests that gender equity remains on the margins of teaching and learning in the STEM fields. Finally, an absence of data on participant demographics and a lack of project evaluation make it difficult to determine who is being served and if and how project outcomes are being measured.

31. What does the phrase "shrinking pipeline" in paragraph refer to?

- (A) the shortage of oil supply (B) the shortage of labor supply
(C) the shortage of training programs (D) an issue that is getting smaller

32. Which of the sentences below best express the essential information in the highlighted sentence in the passage 2? (Incorrect choices change the meaning in important ways or leave out essential information.)

- (A) These projects allowed us to study the differences between men and women employed in STEM jobs.
(B) We were able to intervene when women STEM workers were being treated unfairly.
(C) Studying these projects helped to create more gender equity intervention projects.
(D) STEM jobs were able to be studied by exploring nature.

33. In paragraph 3, "Are there areas where we have concentrated our efforts, and areas we have overlooked?"

In this sentence, "we" refers to

- (A) the author and his/her coworkers. (B) people involved in creating gender equity projects.
(C) people in the STEM disciplines. (D) Yasmin Kafai and his team.

34. According to paragraph 4, what is one positive finding of this research?

- (A) the STEM field is rich and diverse (B) many projects involved mentoring opportunities
(C) girls and women are being prepared for STEM jobs (D) the quality of the questions asked

35. According to paragraph 5, what is one negative trend discovered through this research?

- (A) access to unnecessary content (B) extracurricular projects were common
(C) evaluation of the projects was too specific (D) focus on career advice

Chili peppers are decidedly an international phenomenon, spicing up regional dishes from Thailand to North Africa. In Thailand Confidential, this week's Globalist Bookshelf selection, Jerry Hopkins gives insight

to the culture and history surrounding this fiery fruit (yes, technically a fruit) and highlights how it may be one of the world's best medical miracles.

In Thailand — where restaurants rate their dishes by placing one, two, three, and sometimes four little red chilis on the menu next to the dishes' names to alert diners — I am tolerated. Barely.

A longtime friend, who is a Thai chef, used to bring home food purchased at street stalls and as she placed this on the table, she would point to one container and say, "Mine," then to another, saying, "Yours." As if to say, "Poor dear."

Thailand is not the birthplace of the Capsicum, or chili pepper; it only acts as if it is. In fact, the chili was imported, along with much else in the national diet. However, in Thailand the **per capital consumption** of the small, fiery fruit is surely as high if not higher than it is anywhere else. And it is in the use of unprocessed, fresh, ripe chilis where Thailand rings all the loudest bells.

The truth is that chili is an international phenomenon. There is a bimonthly magazine published in the United States, Chili Pepper (there is no agreement on the spelling), and a wide variety of products is available, including pepper-shaped wind chimes, bells, and strings of Christmas tree lights. There is even a Hot Sauce Club of America; members receive two new hot sauces and a newsletter every month. There is even a popular American rock and roll band that calls itself the Red Hot Chili Peppers. Yes, the band is hot.

36. From these passages, we learn that the author

- (A) enjoys chili peppers everywhere.
- (B) does not really like chili peppers.
- (C) likes to have chili peppers to go with some certain kind of food.
- (D) like to go to restaurant famous for chili peppers.

37. The best title for these passages is

- (A) Thailand and Chili peppers. (B) Chili Peppers and Spicy Dishes.
- (C) Different Tastes all over the World. (D) Chili Peppers and Globalization.

38. Based on the passages, which of the following is NOT TRUE?

- (A) That Thailand uses unprocessed, fresh, ripe chili peppers has started the popularity of chili peppers.
- (B) Thailand exports a lot of chili peppers.
- (C) Chili peppers are a kind of fruit.
- (D) Thai food is normally quite spicy.

39. What does **per capital consumption** mean?

- (A) amount consumed per person within a specific population.
- (B) capital population and its consumption.
- (C) capital with that the government provides each person for food consumption.
- (D) capital that each person can get for their daily food consumption.

40. What is the main idea of the last paragraph?

- (A) Chili peppers are very popular in the United States.
- (B) The use of chili peppers in the United States is being influenced by Thailand.
- (C) Chili peppers are made into different toys.
- (D) Chilli peppers have made a rock band very hot.

IV. Essay. 20 points.

Please write a **well-structured** essay on **how you can prepare yourself for living in a diverse and more global society** in 150 to 200 words discussing your opinions.

選擇題

1. After arriving at a differential diagnosis, information from which one of the following categories will best establish a final or definitive diagnosis?
A. Clinical B. Historical C. Microscopic D. Radiographic E. Clinical laboratory test
2. The descriptive term that would best be used for a freckle is a:
A. Bulla B. Vesicle C. Lobule D. Macule E. Papule
3. Which one of the following terms describes the base of a lesion that is stalk like?
A. Sessile B. Lobulated C. Bullous D. Macule E. Pedunculated
4. Clinical diagnosis can be used to determine the final or definitive diagnosis of all of the following except:
A. Fordyce granules B. Unerupted supernumerary teeth C. Mandibular tori
D. Geographic tongue E. White hairy tongue
5. Radiographic diagnosis would most likely be sufficient to determine the final diagnosis of:
A. Internal resorption B. Periapical cemento-osseous dysplasia C. Odontomas
D. Dental caries E. All of the above
6. To determine the presence of blood dyscrasias, which one of the following would provide the most definitive information?
A. Laboratory blood tests B. Bleeding during probing C. Pallor of the gingiva and mucosa
D. Patient complaint of weakness E. Medication history
7. When response to the application of an antifungal ointment or cream to angular cheilitis is used as a diagnostic procedure, which of the following diagnostic categories is being used?
A. Clinical B. Historical C. Laboratory D. Differential E. Therapeutic
8. Yellow clusters of ectopic sebaceous glands commonly observed on the buccal mucosa and evaluated through clinical diagnosis are most likely:
A. Lipomas B. Fibromas C. Cheek bites D. Linea alba E. Fordyce granules
9. A slow-growing, bony, hard exophytic growth in the midline of the hard palate is developmental and hereditary in origin. The diagnosis is determined through clinical evaluation. The hygienist suspects:
A. Torus palatinus B. Mixed tumor C. Palatal cyst D. Nasopalatine cyst E. Ranula
10. The 'white line' observed clinically in the buccal mucosa that extends from anterior to posterior along the occlusal plane is
A. Leukoedema B. Leukoplakia C. Linea alba D. Lichen planus E. Cheek biting
11. Which one of the following occurs as an erythematous area that is devoid of filiform somewhat rectangular in shape, and on line of the dorsal surface of the tongue?
A. Median rhomboid glossitis B. Geographic tongue C. Fissured tongue
D. Lingual thyroid E. White hairy tongue
12. Which one of the following diagnostic categories would the hygienist most easily apply to the preliminary evaluation of oral lesions?
A. Microscopic B. Clinical C. Therapeutic D. Differential E. Laboratory
13. These examples of exostoses are found on the lingual aspect of the mandible in the area of the premolars. They are benign, bony hard, and require no treatment. Radiographically they appear as radiopaque areas and are often bilateral. The hygienist suspects:
A. Retrocuspid papilla B. Lingual mandibular bone concavity C. Genial tubercles
D. Mandibular fossa E. Mandibular tori
14. Which one of the following terms is most often used when describing mandibular tori?
A. Bullous B. Lobulated C. Sessile D. Pedunculated E. Macule
15. Which of the following is the condition that is considered a variant of normal; has a diffuse gray-to-white, opalescent, filmy appearance on the buccal mucosa; and is most commonly seen in black individuals?
A. Leukoplakia B. Linea alba C. Ectopic geographic tongue D. Lichen planus
E. Leukoedema
16. A patient has the clinical signs of ANUG. Other constitutional signs are also evident. The hygienist has the patient begin hydrogen peroxide rinses without culturing the bacterial flora. This action applies which one of the following diagnostic categories?
A. Therapeutic B. Microscopic C. Clinical D. Final or definitive E. Clinical
17. A small circumscribed lesion usually less than 1 cm in diameter that is elevated and protrudes above the surface of normal surrounding tissue is called a:
A. Bulla B. Macule C. Vesicle D. Papule E. Freckle

18. The base of a sessile lesion is
 - A. Broad and flat
 - B. Stemlike
 - C. Corrugated
 - D. Lobulated
 - E. Nodular
19. The identification of which one of the following is not determined by clinical diagnosis?
 - A. Fordyce granules
 - B. Tori
 - C. Compound odontoma
 - D. Retrocuspid papilla
 - E. Hairy tongue
20. Another term for geographic tongue is
 - A. Allergic tongue
 - B. Median rhomboid glossitis
 - C. Scalloped tongue
 - D. White hairy tongue
 - E. Migratory glossitis
21. The cause of supernumerary teeth is most likely
 - A. Genetic
 - B. Traumatic
 - C. Cystic
 - D. Systemic
 - E. Syndrome related only
22. Historical diagnosis can include
 - A. Age and sex
 - B. Sex and family history
 - C. Race and medical history
 - D. Duration of a lesion
 - E. All of the above
23. Which condition is most often seen on the buccal mucosa?
 - A. Melanin pigmentation
 - B. Fordyce granules
 - C. Nicotine stomatitis
 - D. Retrocuspid papilla
 - E. Ectopic geographic tongue
24. Which one of the following is not considered a variant of normal
 - A. Migratory glossitis
 - B. White hairy tongue
 - C. Fissured tongue
 - D. Geographic tongue
 - E. Hairy leukoplakia
25. The initial response of the body to injury
 - A. The immune response
 - B. The inflammatory response
 - C. Repair
 - D. Hyperplasia
 - E. Regeneration
26. What type of inflammation occurs if the injury is minimal and brief and the source is removed from the tissue?
 - A. Fatal
 - B. Acute
 - C. Chronic
 - D. Life threatening
 - E. Granulomatous
27. In the inflammatory response, the first microscopic event is:
 - A. Dilation of the microcirculation
 - B. Increased permeability of the microcirculation
 - C. Formation of exudate
 - D. Constriction of the microcirculation
 - E. Escape of white blood cells from the microcirculation
28. Which one of the following conditions is a chronic inflammatory lesion?
 - A. Necrotizing sialometaplasia
 - B. Periapical granuloma
 - C. Acute necrotizing ulcerative gingivitis (ANUG)
 - D. Aspirin burn
 - E. Aphthous ulcer
29. The directed movement of white blood cells to the area of injury is called:
 - A. Pavementing
 - B. Margination
 - C. Phagocytosis
 - D. Hyperemia
 - E. Chemotaxis
30. Which cells are most common in chronic inflammation?
 - A. Neutrophils
 - B. Macrophages and lymphocytes
 - C. Neutrophils and macrophages
 - D. Neutrophils and lymphocytes
 - E. Lymphocytes and plasma cells
31. The macrophage has many functions. Which is not a function of the macrophage?
 - A. Phagocytosis
 - B. Removal of large foreign matter
 - C. Removal of inhaled particles
 - D. Formation of antibodies
 - E. Helper in immune response
32. What term is used to describe blood plasma and proteins that leave the blood vessels and enter the surrounding tissues during inflammation?
 - A. Hyperemia
 - B. Hyperdropy
 - C. Magination
 - D. Erythema
 - E. Exudate
33. The process of phagocytosis directly involves the:
 - A. Ingestion of foreign substances by white blood cells
 - B. The escape of plasma fluids and proteins from the microcirculation into the surrounding tissues
 - C. Displacement of white blood cells to the blood vessel walls
 - D. Attachment of white blood cells to the blood vessel walls
 - E. Margination and pavementing of white blood cells
34. Which of the following statements is correct concerning the neutrophil or PMN? It is a cell that:
 - A. Makes up 60% to 70% of white blood cells
 - B. Contains lysosomal enzymes
 - C. Takes part in phagocytosis
 - D. Has a multilobed nucleus
 - E. Is also called a macrophage
35. During inflammation the second type of white blood cell to emigrate from the blood vessel into the injured tissue is the:
 - A. Neutrophil
 - B. Red blood cell
 - C. Lymphocyte
 - D. Monocyte
 - E. Plasma cell
36. Components of the complement system mediate the inflammatory process by:
 - A. Decreasing vascular permeability
 - B. Releasing the neutrophil's histamine granule
 - C. Causing cytolysis
 - D. Decreasing phagocytosis
 - E. Decreasing lysosomal enzymes
37. Two days after injury, granulation tissue can be described as:
 - A. Immature vascular connective tissue
 - B. Exudate
 - C. Keloids
 - D. Ulceration
 - E. Scar tissue
38. Which term refers to a defect present at birth?

- A. Anomaly B. Inherited defect C. Congenital defect D. Developmental defect
E. Embryonic defect
39. Which term refers to the origin and tissue formation of teeth?
A. Odontogenesis B. Dentinogenesis C. Amelogenesis D. Cementogenesis
E. Stomatogenesis
40. Which term refers to the joining of teeth by cementum only?
A. Fusion B. Geminatio n C. Twinning D. Concrescence E. Hypodontia
41. Which teeth are most often missing?
A. Canines B. Deciduous second molars C. Lateral incisors D. Premolars
E. Third molars
42. Which tooth is the most common supernumerary tooth?
A. Mandibular lateral incisor B. Distomolar C. Paramolar D. Hutchinson molar
E. Mesiodens
43. Which teeth often appear smaller than normal?
A. Mandibular premolars B. Maxillary premolars C. Mandibular lateral incisors
D. Mandibular third molars E. Maxillary lateral incisors
44. Which term refers to the developmental anomaly that arises when a single tooth germ attempts to divide and results in the incomplete formation of two teeth?
A. Fusion B. Geminatio n C. Concrescence D. Dilaceratio n E. Osteogenesis
45. Which term refers to the developmental anomaly that arises from the union of two normally separated adjacent teeth?
A. Twinning B. Geminatio n C. Concrescence D. Dilaceratio n E. Fusion
46. Which term refers to an abnormal angulation or curve in the root or crown of a tooth?
A. Fusion B. Geminatio n C. Concrescence D. Dilaceratio n E. Twinning
47. Which term refers to the developmental anomaly that in which teeth exhibit elongated, large pulp chambers and short roots?
A. Dens in dente B. Dens evaginatus C. Taurodontism D. Dilaceratio n
E. Concrescence
48. Which developmental anomaly is often associated with a nonvital tooth and periapical lesions?
A. Dens in dente B. Dens evaginatus C. Taurodontism D. Talon cusp
E. Radicular cyst
49. Which of the following teeth most often exhibit supernumerary roots?
A. Maxillary first premolars B. Maxillary third molars C. Mandibular first molars
D. Maxillary first molars E. Maxillary second molars
50. Which one of the following describes the appearance of enamel hypoplasia resulting from febrile illness or vitamin deficiency?
A. Pitting defects B. Yellowish-brown discoloration C. Blackish-brown staining
D. Chalky white spots E. Opalescent dentin

申論題

1. 請繪圖並描述 Trajectories of the maxilla(15%)
2. 請簡述進行氣管切開術時之相關解剖構造(15%)
3. 當惡性腫瘤長在右上顎第三臼齒區，經評估需切除 5 x 3 公分大小，此時可能傷及那些血管(10%)
4. 上顎骨發育的時間與過程 (15%)
5. 下顎骨發育的時間與過程 (15%)
6. 兩個身體主要 Lymphatic trunks 的名稱與負責的區域(10%)
7. Carotid sheath 內含有那三個重要構造(15%)
8. 寫出五個 External Carotid Artery 的分枝 (5%)