

Part A. General English/Medical Vocabulary. Choose the best answer (A to D) in the following sentences.

۱-When I realised I had dropped my infected surgical gloves in the corridor on my way to the operating theatre, I decided to my steps.

- a. retrace
- b. regress
- C. resume
- d. return

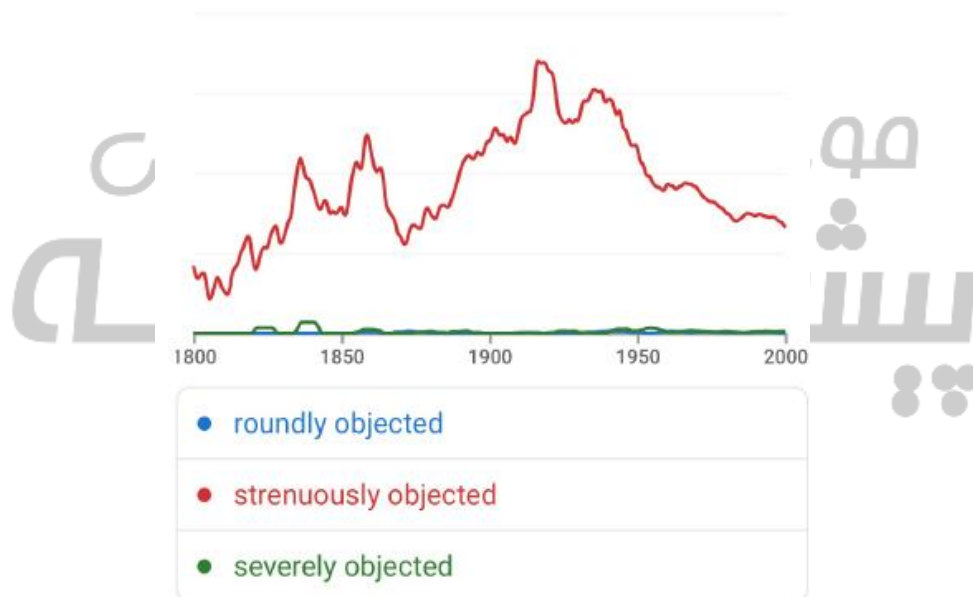
گزینه د صحیح است

۲-Local residence objected to the municipality plans to build a hospital where there is currently a beautiful park.

- a roundly
- b. harshly
- c strenuously
- d. severely

گزینه ج صحیح است

همانطور که در نمودار زیر نشان داده شده است از میان گزینه های سوال موثر استفاده ی بیشتر به نفع strenuously برای لغت object است یعنی collocation یا ترکیب strenuously objected رایج تر از ترکیب دیگر گزینه ها می باشد . با این حال این یک تست بخش واژگان است و نه بررسی رایج تر بودن لغات و در واقع همه گزینه‌ها می توانند صحیح باشند و فقط خیلی ساده برخی از ترکیبات برای اهل فن زبان رایج تر هستند. اما بطور کلی با توجه به توضیحات داده شده پاسخ صحیح تر برای این سوال گزینه ج می باشد.



Caption

۳-The allied health professional who provides a range of splints and other devices to aid movement, correct deformity from an abnormal development of part of the body, e.g. talipes, and relieve pain, is called:

- a. Chiropodist
- b. Podiatrist
- c. Prosthetist
- d. Orthotist

گزینه د صحیح است

۴- "Coeliac Disease" is a disease of small intestine and might reveal itself with signs of malnutrition and possible abdominal..... .

- a. disorientation
- b. distemper
- c. distention
- d. distortion

گزینه ج صحیح است

abdominal distention occurs when substances such as air(gas) or fluid accumulate in the abdomen causing it's expansion.

۵-In contrast to an exudate, a transudate has (a)

- a. cloudy appearance
- b. lower protein concentration
- c. higher specific gravity
- d. characteristic cellular component

گزینه ب صحیح است

Part B. Dental Terminology. Choose the correct dental term (A to D) in the following sentences.

۶- Longitudinal tooth fractures

- a. are often significant and initially demonstrable
- b. invariably result from short-term excessive forces
- c. have a tendency to grow, and their propagation is always very fast
- d. are not diagnoses, but findings

گزینه د صحیح است

۷-Melasma (Chloasma)

- a. is a relatively common, hereditary symmetric melanosis that typically develops on the skin
- b. reveals basilar melanosis with increase in the number of melanocytes
- c. shows present melanocytes possibly larger than those in the adjacent normally pigmented areas
- d. may spontaneously resolve after parturition, resumption of the exogenous hormones, or regulation of endogenous sex hormone levels

گزینه ج صحیح است

۸-Which of the followings on the physical/mechanical properties of "addition silicones, polyethers, condensation silicones and polysulfides" is correct, respectively?

- Working Time: Short-moderate, Short, Short, Short-moderate
- Shrinkage on Setting: Very low, Low, Low-moderate, l ligh
- Flow Setting under Small Forces: Very low, Very low, Moderate, Moderate-high
- Wettability by Gypsum Mixes: Good-very good, Very good, Poor, Moderate

گزینه د صحیح است (باتوجه به جدول صفحه ۶۸ درسنامه مواد دندانی پارسه)

۹-Two-step self-etch adhesives

- contain an acidic monomer that functions as a self-etching primer and a hydrophobic non- solvated bonding resin
- include a sulphonated and/or carboxylated resin molecule that performs two fuctions, etching and priming of dentine and enamel, in their acidic primers
- have their bonding mechanism based on the consecutive etching and priming of enamel and dentine, forming a continuum in the substrate
- are more susceptible to variations in the degree of substrate moisture but less susceptible to chemical instability

گزینه الف صحیح است (باتوجه به فصل ۴ درسنامه ترمیمی پارسه)

۱۰-Which salivary component does NOT match its role in saliva?

- Glycoproteins and mucoids: for the function of "Lubrication"
- Bicarbonate and phosphate, for the function of "Cleansing"
- Glycoprotein pellicle and minerals; for the function of "Tooth" integrity maintenance
- Lactoperoxidase and lysozyme; for the function of "Antibacterial" action

گزینه ب صحیح است

همانطور که می‌دانید bicarbonate is the acid buffer secreted in saliva

PartC - Read the following passages carefully and answer the comprehension questions that follow. Base your answers on the information given in the text "ONLY"

Passage 1

Self Assembly (SA) is the spontaneous process of molecules joining together to form a stable, structurally well-defined complex via non-covalent bonds, under equilibrium conditions. SA is ubiquitous in biological systems and regarded as the foundation for achieving complex biological structures, The SA of biomaterials to mimic bone biomineralisation provides a bone-like microenvironment for proliferation and differentiation of osteoblasts, so that the substitute bone will have sufficient mechanical strength and stiffness. One of the most challenging aspects of the SA of biomaterials is ensuring that the structural and biological functions of scaffolds are compatible with native bone. Some natural polymers, such as silk, and synthetic polymers, including PGA, PLA and PLGA are of particular interest due to their unique biocompatibility, biodegradability, immunogenicity and versatility.

Differing from polymers, bioactive glasses are often used for bone regeneration because of their mechanical properties and affinity to hard tissues. It is essential to develop a scaffold with enhanced osteogenic potential of the scaffolds. The addition of bioactive glass could enhance the compressive modulus of the assembled composites, and VEGF production in endothelial cells. In a study, a high-performance bone-like hierarchical nanostructure was fabricated using thermodynamic controlled SA strategy involving two steps: fabrication of a high energy polyacrylic acid-calcium intermediate, and selective mineralisation in collagenous gap regions driven by an energetically downhill process; which was readily adjusted to different mineralisation modes with distinct morphologies and biofunctions. The biomimetic bone-like scaffold with excellent biological performance a) had potent osteoinductive properties b) promoted mesenchymal stem cell recruitment c) induced macrophage polarisation in osteogenesis, and d) assisted in new bone ingrowth by controlling the degradation rate.

۱۱- On the subject of "Self Assembly", Which of the following sentences IS CORRECT?

- a. It is a calculated procedure of molecules connecting with one another.
- b. The outcome of SA is a disintegrating distinct organization.
- e. In biological systems, SA can be pervasively and commonly found.
- d. SA is referred to as grounds for intricate constructions in the biological systems.

گزینه د صحیح است

۱۲-The SA of biomaterials to simulate bone

- a. can exactly result in the same structure as natural bone
- b. will induce bone with ideal toughness and hardness
- c. needs compatibility between the bone-like structure and used scaffolds
- d. can be achieved via natural/synthetic adaptable materials

گزینه ج صحیح است

۱۳-Bioactive glasses have shown the following direct effects except for.....

- a. Hard tissue resemblance
- b. Soft tissue regeneration
- c. Vascular endothelial growth factor fabrication
- d. Compressive modulus promotion

گزینه ب صحیح است

۱۴-In a study on hierarchical nanostructure,

- a. Controlled SA was used to produce a natural bone construct
- b. in the first stage ,polyacrylic acid-calcium was a final product
- c. in the second stage, the collagenous gaps were mineralised in a complex way
- d. the mineralisation pattern was quickly amended to other similar models

گزینه د صحیح است

۱۵- The biomimetic bone-like scaffold had all the following effects except for.....

- a. effective stimulation of bone
- b. peripheral development of bone
- c. endorsement of stem-cell employment
- d. Group-division of macrophages

گزینه ب صحیح است

Passage 2

Candidiasis is the term used to denote infections caused by species of *Candida* and includes infections of nails, skin, mucous membranes and internal organs. Over 100 species of *Candida* are recognised, not all are pathogenic to humans. *Candida albicans* (CA) is the most common pathogen of all *Candida* species. *Candida* species are harmless commensals of the human body and are part of the normal flora of the pharynx, intestine, vagina, perianal skin folds, and mouth. The dorsum of the tongue represents the primary oral reservoir for these organisms, but mucosal surfaces and dental plaque can also harbour them. Local/systemic factors must be involved for the organism to become infectious because it was proven difficult to initiate experimentally induced *Candida* infections in healthy oral tissues. However, amongst precipitating factors are age, depressed host defences, endocrine disorders, heredity, ill-fitting dentures, and protracted use of antibiotics, corticosteroids or cytostatic drugs.

When changes occur in host defence mechanisms and the oral environment, yeasts may induce mucosal and periodontal opportunistic infections. The incidence of these infections has increased in parallel with the increase in numbers of immunocompromised patients. A number of antimycotic drugs are advised for treating oral candidiasis. Polyene antibiotics such as nystatin and amphotericin B are among the recommended drugs. Mouth rinses containing antimicrobial agents exert beneficial clinical effects when used as adjuncts in treating periodontal disease. Nevertheless, chlorhexidine gluconate is considered an appropriate adjunct or alternative to specific antimycotic drugs, with its 0.2% administration as a mouthwash being widely recommended. Thymol is an essential oil which is used as a mouth rinse and was tested for its effects in inhibiting the development of plaque and gingivitis. However, the former showed superior antifungal effects except in studies involving Listerine and pyridinium fluoride.

۱۶- *Candida* is defined as

- a. group of species causing infections solely in the oral cavity
- b. infectious microorganism resulting in definite pathosis
- c. undisruptive flora taking advantage of their host
- d. the chiefly found microorganism on mucosa in the oral cavity

گزینه ج صحیح است

۱۷- Which of the followings CANNOT be considered as a causative matrix for oral candidiasis?

- a. Intact mucosa
- b. genetics
- c. prolonged use of antibiotics
- d. lack of immunocompetence

گزینه الف صحیح است



۱۸- Which of the following answers on "Candida Albicans Infections" **IS NOT CORRECT?**

- a. The infections mainly appear owing to the deterioration in the immune system.
- b. They have reached a plateau due to the existing modalities.
- c. Antibacterial-added mouth rinses can be addressed as side ministrations.
- d. Antimycotic and Polyene antibiotics are advocated for the treatment.

گزینه ب صحیح است

۱۹- If chlorhexidine gluconate is compared with thymol,..... .

- a. chlorhexidine is considered a mouth rinse; reducing dental plaque
- b. thymol, as a mouthwash, is highly suggested as a treatment
- c. a conventional substitute for antimycotic medicine could be thymol
- d. the outcomes of thymol shows its halting capability on gingivitis

گزینه د صحیح است

۲۰- The word "**former**" refers to

- a. Chlorhexidine
- b. Antimycotic drugs
- C. Mouthwash
- d. Thymol

گزینه د صحیح است

«لازم به ذکر است ملاک اصلی پاسخنامه سؤالات بر روی سایت سازمان سنجش قرار می گیرد»

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