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MDS MOCK MODEL ENTRANCE EXAM

Learning with
Dentistry
explorer

200 standard Multiple Choice Questions

Can Participate at anytime within Friday and Saturday

Also useful for NMCLE

Solution will be available with explanation from standard textbook

28th August
12th Bhadra

Payment ID

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Welcome to Dentistry Explorer. These are test series we are organizing for MDS (Masters in Dental Surgery) entrance exam. Covering syllabus provided via Medical Education Committee. There will be series of exam from this Friday so don't forget to join us. We believe that these questions will boot your knowledge as well as confidence as these are prepared via faculties from respective departments.

Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

- Hit "Submit" button. Response/Answer will not be recorded and Results will not be published if "Submit" button is not clicked.
- Result will be published after completion of exam.
- Questions/Answers/Explanations will be sent to you if you have registered for exam but could not appear.

Exam Format:

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application - 30:50:20
- Duration - 3 hours



Implant dentistry:

1. The implant site bone has thinner layer of porous cortical bone with fine trabecular bone pattern. The likely density of bone in HU is:
 - a. 150-350
 - b. 350-850
 - c. 850-1250
 - d. >1250

Key: b, Exp: It falls under D3 of Misch classification of bone density and is commonly present in anterior and posterior maxilla and in posterior mandible. Ref: W and P 8th ed, page number: 742
2. The initial radiograph of choice in dental implantology treatment is:
 - a. Computed tomography
 - b. Periapical radiograph
 - c. CBCT
 - d. Panoramic radiograph

Key: d



3. After tooth extraction the alveolar bone resorption will be:
- a. Not affected
 - b. Increased progressively towards apical level
 - c. Same rate at apical and coronal level
 - d. Decreased progressively towards apical level.

Key: d

4. The risk of placing implant in HIV positive patient is from:
- a. Bleeding
 - b. Infection
 - c. Delayed healing
 - d. All of the above

Key: d

5. Pitch refers to:
- a. Angulation of thread
 - b. Depth of thread
 - c. Width of thread
 - d. Distance between the implant thread

Key: d

Ref: 2-5, Contemporary implant dentistry, Carl E Misch, 3rd ed.



Oral pathology and Microbiology:

1. Defect of cleft involving hard and soft palate in Veau classification falls under:

- a. Type I
- b. Type II
- c. Type III
- d. Type IV

Key: b, Exp: type I involves soft palate only, type III involves soft palate to alveolus usually involving lip and type IV involves complete bilateral cleft.

Ref: Shafer's 6th ed, page number: 18

2. One of the following is a feature of Meischer-Melkersson-Rosenthal syndrome:

- a. Cheilitis granulomatosa
- b. Cheilitis glandularis
- c. Actinic cheilitis
- d. Angular cheilitis

Key: a, Exp: Meischer-Melkersson-Rosenthal syndrome involves cheilitis granulomatosa, plicated tongue and facial nerve palsy. Ref: Shafer's 6th ed, page number: 21

3. There is loss in uniformity of individual cells as well as loss in architectural orientation. This is known as:

- a. Anaplasia
- b. Aplasia
- c. Metaplasia
- d. Dysplasia

Key: d, Ref: Shafer's 6th ed, page number: 86



4. Morphologic complexity with differentiation of tumor cells and fibrous, hyalinized, myxoid, chondroid and even osseous area are seen as a result of metaplasia. The likely diagnosis is:
- Acinic cell carcinoma
 - Pleomorphic adenoma
 - Mucoepidermoid carcinoma
 - Warthin's tumor
- Key: b, Exp: these are the histologic structures commonly seen in pleomorphic adenoma. Ref: Shafer's 6th ed, page number: 220
5. Gingival cyst of new born is derived from:
- Cell rest of Malassez
 - Reduced enamel epithelium
 - Cell rest of Serres
 - Unclassified origin
- Key: c, Ref: Shafer's 6th ed, page number: 254
6. "Ray fungus" is peculiar histopathologic feature of actinomycosis. The most commonly isolated organism is:
- Histoplasma capsulatum
 - Actinomyces bovis
 - Cryptococcus neoformans
 - Actinomyces israelii
- Key: d, Exp: Histoplasma and Cryptococcus are fungi. Actinomyces bovis produces lumpy jaw in cattle. Ref: Shafer's 6th ed, page number: 318
7. "Rugger Jersey" sign is not the feature of:
- Marble bone disease
 - Infantile cortical hyperostosis
 - Osteopetrosis
 - Albers-Schonberg disease
- Key: b, Exp: This is the radiographic feature of marble bone disease also known as (c) and (d). Ref: Shafer's 6th ed, page number: 700



8. The presence of typical 'safety-pin' cells and of normoblasts in circulating blood is a characteristic feature of:
- Aplastic anemia
 - Sickle cell anemia
 - Megaloblastic anemia
 - Thalassemia

Key: d. Ref: Shafer's 6th ed, page number: 761

9. In Psoriasis if deep scales are removed, one or more tiny bleeding points are disclosed. This characteristic feature is called:
- Auspitz's sign
 - Bulla spread sign
 - Nikolsky sign
 - Lutz sign

Key: a. Exp: Bulla spread (Lutz) sign and Nikolsky sign are seen in chronic vesiculobullous diseases like pemphigus and pemphigoids.

Ref: Shafer's 6th ed, page number: 803

10. There is increase in size of the individual muscle fibres. The most likely condition is:
- Hyperplasia
 - Aplasia
 - Hypertrophy
 - Atrophy

Key: c. Exp: increase in number of cells/ tissues is heperplasia while increase in size is hypertrophy.

Ref: Shafer's 6th ed, page number: 863



Oral medicine and radiology

2. Obtaining, evaluating, and assessing a patient's oral and overall health status is the obligation of the treating oral health-care professional. This process can arbitrarily be divided into following four major overlapping parts of which, one is not correct:

- a. Information gathering
- b. Establishing a differential and provisional diagnosis
- c. Formulating a plan of action
- d. Initiating treatment and follow-up

Key: b, Exp: Establishing differential and final diagnosis is the second step. We usually do not formulate plan of action just based on differential or provisional diagnosis. Ref: Burkett 12th ed, page number: 2

3. A patient with uncontrolled or unstable medical conditions falls under which category of medical complexity status (MCS)?

- a. MCS 0
- b. MCS 1
- c. MCS 2
- d. MCS 3

Key: c, Exp: MCS and ASA classification falls under medical risk assessment. A more appropriate medical assessment for dental care, MCS, was specifically developed for dental patients and has been used successfully for patients with medical problems ranging from non-significant to very complex diseases and conditions. Ref: Burkett 12th ed, page number: 11



4. One of the following is correct systemic prescription of fluconazole for the treatment of oral candidiasis in adult:
- 200 mg on day 1, then 100 mg qd for 7-14 d
 - 100mg on day 1, then 200 mg qd for 7-14 d
 - 400 mg qd-bid for 7-14 d
 - 200mg on day 1, then 200 mg qd for 7-14 d
- Key: a, Exp: please refer to prescription pattern of systemic antifungals for treatment of oral candidiasis. Re: Burkett 12th ed, page number: 40
5. Cytomegalovirus that causes severe oral ulcers is also known as:
- HHV 5
 - HHV4
 - HHV 2
 - HHV1
- Key: b, Exp: HHV 4 is also known as cytomegalovirus, HHV 5 is Epstein barr, HHV 2 is herpes simplex virus 2 and HHV 1 is herpes simplex virus 1. Ref: Burkett 12th ed, page number: 59
6. To discriminate between different candidal species, an additional examination can be performed on:
- Periodoc acid Schiff
 - Sabouraud agar
 - KOH mount
 - Pagano Levin agar
- Key: d, Exp: Pagano Levin agar is used to differentiate different candida species. Ref: Burkett 12th ed, page number: 97
7. The stimulated whole salivary flow rate suggestive of marked salivary gland hypofunction is:
- <0.5ml/ min
 - <0.6ml/ min
 - <0.7ml/ min
 - <0.8ml/ min
- Key: c, Exp: unstimulated whole saliva flow rates of <0.1 mL/min and stimulated whole saliva flow rates of <0.7 mL/min are abnormally low and indicative of marked salivary gland hypofunction. Ref: Burkett 12th ed, page number: 224



8. All of the following are the reported causes of TMJ clicking except:

- a. Enlargement of lateral pole of condyle
- b. Condylar hypomobility
- c. Structural irregularity of articular eminence
- d. Loose intra-articular bodies other than disc.

Key: b, Exp: condylar hypermobility and dysfunctional movements, patterns or incoordination are other causes of TMJ click other than those mentioned above. Ref: Burkett 12th ed, page number: 270

9. The currently considered drug of choice for SUNCT is:

- a. Indomethacin
- b. Sumatriptan
- c. Naproxen sodium
- d. Lamotrigine

Key: d, Exp: Lamotrigine 100-300mg/day is recent drug of choice for SUNCT. Indomethacin is used for paroxysmal hemicranias and hemicranias continua. Sumatriptan is abortive drug for migraine and cluster headache while naproxen is abortive drug for migraine. Ref: Burkett 12th ed, page number: 313

10. Dietary approaches to stop hypertension (DASH) approximately reduces systolic blood pressure by:

- a. 2-4mm Hg
- b. 4-9mm Hg
- c. 2-8mm Hg
- d. 8-14mm Hg

Key: d, Exp: limitation of alcohol consumption will lower by 2-4mm Hg, physical activity will reduce by 4-9mm Hg and dietary sodium reduction will lower by 2-8mm Hg. Ref: Burkett 12th ed, page number: 366



11. Strategies for education of institutionalized older adults includes all except:

- a. Bridging
- b. Chaining
- c. Holding
- d. Rescuing

Key: c, Exp: these strategies include bridging, chaining, hand over hand, rescuing and distraction. Ref: Burkett 12th ed, page number: 666

12. Non-lethal chromosomal aberration include:

- a. Ring chromosome
- b. Dicentric chromosome
- c. Anaphase bridge
- d. Small deletions

Key: d, Exp: Translocation and small deletions are non - lethal chromosome aberrations while others are lethal ones. Ref: W and P 8th ed, page number: 87

13. The image is read by transferring each row of pixel charges from one pixel to the next in "bucket brigade" fashion. This is feature of:

- a. CCD
- b. CMOS
- c. FPD
- d. PSP

Key: a, Exp: The electrons are attracted toward the most positive potential in the device, where they create "charge packets." Each packet corresponds to one pixel. The pattern of charge packets formed from the individual pixels in the matrix represents the latent image. The image is read by transferring each row of pixel charges from one pixel to the next in "bucket brigade" fashion. Ref: W and P 8th ed, page number: 162-63



14. The measure of the range of exposures that can be recorded as distinguishable densities on a film is known as:

- a. Contrast
- b. Density
- c. Speed
- d. Latitude

Key: d, Ref: W and P 8th ed, page number: 262

15. One of the following is an inherent artifact in CBCT:

- a. Beam hardening artifacts
- b. Aliasing artifacts
- c. Partial volume averaging
- d. Ring artifacts

Key: b, Exp: partial volume averaging, scatter and cone beam artifacts are inherent artifacts in CBCT. There are also procedure related artifacts and introduced artifacts. Ref: W and P 8th ed, pge number: 490

16. Water's projection is also known as:

- a. Submentovertex
- b. Occipitomenal
- c. Jug handle
- d. Towne's

Key: b Exp: Water's or occipitomenal projections are used for paranasal sinuses especially maxillary sinus, mid facial bones and orbits. Ref: W and P 8th ed, page number: 411



Pedodontics and Preventive Dentistry

1. Rooting reflex is the movement of the infant's head and tongue towards an object touching his cheek. By what age rooting reflex disappears in normal infants?
 - a. 4 months after birth
 - b. 7 months after birth
 - c. 9 months after birth
 - d. 12 months after birth

Answer: b (ref. Gowrisankar 1st ed 234)

The rooting reflex is elicited by Stroking the cheek. It develops around 28th week IU and disappears in normal infants around 7-8 months of age. It is maximum during 1st 3 months

2. The third staging of Sigmund Freud's psychosexual theory
 - a. Anal
 - b. Phallic
 - c. Latency
 - d. Genital

Answer: b (ref. Shova Tondon 2nd ed 125)

Stages of Sigmund Freud's psychosexual theory:

1. Oral - Birth to 18 months
 2. Anal - 18 months to 3-4 years
 3. Phallic - 3-4 years to 6 years
 4. Latency - 6 to 11 years
 5. Genital - 11 years onward
 - 6.
3. A seven years old child reports to your clinic for extraction of deciduous incisors. As a clinician it should be kept in mind that the child at this age is?
 - a. Susceptible to praise
 - b. Frequently negative
 - c. Generally uncooperative
 - d. Prone to sensation anxiety

Answer: a (Finn 4th ed 42)

Approving child behavior in front of parents is known as social reinforcement. Praise, positive facial expression, appreciating child, physical contact comes under social reinforcement



4. "Whistle" is a word substitute for explaining instrument in children?

- a. Suction apparatus
- b. Low speed hand piece
- c. High speed hand piece
- d. Air syringe

Answer: c (mc Donald 8th ed 44)

Euphemism words are defined as words that possess an inoffensive or indirect expression that is substitute for one that is considered offensive or too harsh or inoffensive word or phrase substitute for one considered offensive or hurtful.

5. All of the following statements about acute leukemia in children are true EXCEPT

- a. Myelomonocytic variety and causes gross gingival swelling
- b. May cause bleeding gums or pallor mucosa
- c. It is usually of the lymphoblastic variety
- d. By slow enlargement of regional lymph nodes

Answer: a (ref. Mc Donald 8th ed 568 - 575)

Leukemia in children is mostly of acute lymphoblastic variety

Gross gingival hyperplasia does not occurs with lymphoblastic type

Peak incident is between 2-5 years of age

Mostly the characteristic features of monocytic and myeloblastic variety which is not present in children

6. A preschool child has a definite yellow pigmentation of the primary teeth. Under ultraviolet light, the teeth have a faint overall yellow - green auto fluorescence. The most likely diagnosis is?

- a. Amelogenesis imperfecta
- b. Hypoplasia of the primary teeth
- c. Pigmentation associated with erythroblastosis fetalis
- d. Tetracycline pigmentation

Answer: d (ref. Neville 2nd ed 65 - 66)

Erythroblastosis fetalis : blue - green color of primary teeth only

Porphyria: purplish brown pigmentation

Cystic Fibrosis: yellowish gray to dark brown

Tetracycline: yellow or yellow brown pigmentation

7. The following treatment is indicated for large non - carious exposure in asymptomatic maxillary primary molar

- a. Pulp capping with calcium hydroxide
- b. Formocresol pulpotomy
- c. Calcium hydroxide pulpotomy
- d. Pulpectomy

Answer: b (ref. Shava Tandon 2nd ed 399,404)

Formocresol pulpotomy is indicated in asymptomatic primary teeth whereas calcium hydroxide pulpotomy in permanent tooth.

When indicated, pulpotomy should be followed by a stainless crown restoration



8. 11 years old child reports to your clinic one hour after injury to a maxillary central incisor. The tooth is vital and slightly mobile. Radiographic examination reveals a fracture at the apical third of the root. What is the best treatment at this point of time?

- Render palliative therapy
- Extract the tooth
- Relieve the occlusion and splint the tooth
- Perform immediate root canal treatment and splint

Answer: c (ref. Shova Tondon 1st ed 521)

Apical third fracture has the best prognosis. The teeth usually remains vital. After radiographic and clinical assessment, these teeth are usually subjected to digital reduction and stabilization by splinting.

9. Most common non odontogenic cyst in pediatric population is :

- Mucocele
- Compound odontome
- Complex odontome
- Traumatic bone cyst

Answer: d (ref Shova Tondon 2nd ed 551)

Also known as progressive hemorrhagic bone cavity or extravasation bone cyst Traumatic etiology

10. where is the point of insertion of the needle when an inferior alveolar block injection is given in a child as compared with an adult

- lower than for an adult
- higher than for an adult
- at the same level as an adult
- more anterior than for an adult

Answer: a (ref. Shova Tondon 2nd ed 532)

This is due to difference in position of lingual foramen.

In children mental foramen is 0.4 cm below the occlusion plane, due to the underdeveloped ramus of the mandible.

Therefore, during inferior alveolar nerve block, the needle is inserted in a position inferior to the occlusal plane.

11. Snap fit of stainless steel crown is obtained by which plier?

- Gordans plier
- Crimper
- Ball and socket
- Johnsons

Answer: b (ref. Stephan Wei 1st ed 229)

It is crimping plier no. 417 for snap fit.

Tight fit: Johnsons no 114

General contouring and shaping: Gordans For producing contact point: Ball and socket



12. The only way to check quantitatively the extent of mouth breathing is by:
- Inductive plethysmography
 - Inductive manometry
 - Manometry
 - Butterfly test

Answer: a (ref. Shova Tondon 2nd ed 513)

Also known as rhinomanometry

13. Bizarre marks means?
- Colour changes in a bruises during healing
 - Oval shaped bruises that resembles finger tips
 - Wide, sharp border rectangular bruises
 - Bruises with borders nearly always infected

Answer: D (ref. Shova Tondon 2nd ed 856)

Bizarre marks is seen when blunt instrument is used like belt.

The wide assortment of instrument used to abuse children suggest that the caretaker who loose temper grabs whatever object is handy.

14. The sciene of examining the lip print is called?
- Cheiloscopy
 - Dactyloscopy
 - Cheilography
 - Dactylography

Answer: a (ref. Shova Tondon 2nd ed 865)

Science of examining finger print is Dactylography.

15. The mean daily eruption velocity of a tooth is?
- 51 micrometer/daily
 - 61 micrometer/daily
 - 71 micrometer/daily
 - 81micrometer/daily

Answer: c (ref. Shova Tondon 2nd ed 94)

Growth of palatal vault is 10 micrometer from birth to adolescent.



Orthodontics

- 1) The most important growth site of cranial base is
- Spheno-ethmoid synchondrosis
 - Spheno-occipital synchondrosis
 - Inter-sphenoid synchondrosis
 - Intra-occipital synchondrosis

Ans: b

Greater significance are primary cartilagenous growth sites (synchondroses) sphenoethmoidal, intersphenoid and, most importantly, the spheno-occipital.

- 2) The facial cusps of mandibular and palatal cusps of maxillary posterior teeth are called
- Guiding cusps
 - Holding cusps
 - Shearing cusps
 - Stamp cusps

Ans: d

- 3) In angle's class II, division 2 the path of closure of mandible is
- Normal
 - Forward
 - Backward
 - Excessively deviated

Ans: c

- 4) In cephalometrics, the mandibular plane used by Steiner is
- Tangent to lower border of the mandible
 - A line connecting gonion and gnathion
 - A line connecting gonion and menton
 - Tangent to incisal edges of lower teeth

Ans: b Bhalajhi 3rd ed 149

Mandibular plane	<ul style="list-style-type: none"> ▪ Tangent to the lower border of mandible (Tweeds analysis) ▪ Gonion - Gnathion line (steiners) ▪ Gonion - Menton line (Downs)
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Horizontal Plane

FH plane	Connects orbitale and Porion
SN plane	Sella and Nasion
Palatal plane	A line that connects anterior nasal spine (ANS) of the maxilla to posterior nasal spine of palatal bone
Occlusal plane	A denture plane that bisects the posterior occlusion of permanent molars and premolars and extends anteriorly

- 5) Bolton's analysis helps in determining
- Deficiency in arch length
 - Deficiency in arch width
 - Disproportion in size between upper and lower teeth
 - Expansion needed in posterior regions

Ans: c

- 6) For a perfect translation of the single rooted tooth, the center of rotation is
- At the root apex
 - At infinity
 - Midpoint between $1/3^{\text{rd}}$ from the root apex and $2/3^{\text{rd}}$ from the cervical line
 - Irregular

Ans: b

[Bhalajhi 3rd ed 198]

CENTER OF ROTATION is a variable point, about which a body appears to have rotated. For tipping movements, the center of rotation will be at the apical one third of root while in case of perfect translation it will be at infinity. Center of resistance /geometric center) is a fixed point and is analogous to center of gravity or center of mass. The CENTER OF RESISTANCE of a single rooted teeth is present between the one third and one half of root length. For a multirouted tooth, the center of resistance is probably between the roots 1 to 2 mm apical to the furcation.



7) The following bones have a buttressing effect resisting mid – palatal suture opening?

- a) Sphenoid and zygomatic
- b) Zygomatic and maxillary
- c) Zygomatic and frontal
- d) Maxillary and sphenoid

Ans: a

8) On an average, forces recommended for most tooth movement is

- a) 5gm/cm² of root area
- b) 10gm/cm² of root area
- c) 20gm/cm² of root area
- d) 40gm/cm² of root area

Ans: c

9) The active component of fixed appliance is

- a) Bands
- b) Lock pins
- c) Separators
- d) Brackets

Ans: c

10) Contra indication of activator is

- a) Class I open bite
- b) Class I crowding due to tooth and jaw size discrepancy
- c) Class I deep bite
- d) Class III malocclusion

Ans: b

11) High risk of relapse of rotations is due to stretching of following gingival fibres?

- a) Supra alveolar and transeptal
- b) Supra alveolar and horizontal
- c) Transeptal and horizontal
- d) Circular and transeptal

Ans: a



- 12) In patients exhibiting normal upper lip with only 2-3 mm of maxillary incisors exposed, it is ideal to
- a) Intrusion of anteriors
 - b) Extrusion of molars
 - c) Distalization of anteriors
 - d) Use of class II elastics

Ans: b

- 13) Pericision is also called as
- a) Supra crestal fibrotomy
 - b) Infra crestal fibrotomy
 - c) Intra crestal fibrotomy
 - d) Circumferential fibrotomy

Ans: a Reference Bhalajhi 3rd ed 454

- 14) One of the following requires prolonged retention
- a) Deep bite
 - b) Crowding
 - c) Severe rotations
 - d) Cases treated by extraction

Ans: c

- 15) Most common cause of sleep apnea in children is
- a) Excessive daytime sleepiness
 - b) Obesity
 - c) Large neck girth
 - d) Tonsillar hypertrophy

Ans: d



Periodontics

1. Gingiva in children

- a) More keratinised more stippled
- b) More keratinised Less stippled
- c) Less keratinised more stippled
- d) Less keratinised Less stippled

Key 'D' (Reference Carranza 11th ed 18 /10th ed 52,63)

Summary of periodontium characteristics in children:

- a) Gingiva
 - Less stippled
 - redder than adults due to increased vascularity
 - Interdental col formation and saddle areas
 - Thinner, less keratinized epithelium
 - Affinity for melanin pigmentation
 - Attached Gingiva is narrower in primary dentition and narrower in the mandible
 - Interdental papillae is shorter and rounder

- b) PDL & Bone
 - Wider periodontal membrane space
 - Fewer and less dense periodontal fibers
 - Less dense and differentiated collagen fibers
 - Increased blood and lymphatic supply
 - Thinner lamina dura
 - Flatter alveolar crests
 - Fewer trabeculae



2. Poor Prognosis of furcation involvement is

- a. Mandibular 1st molar
- b. Mandibular 1st premolar
- c. Maxillary 1st premolar
- d. Maxillary 2nd premolar

Key c Caranza

Maxillary 1st premolar furcation is at the level of the junction of middle and apical third of the root. In case of such an advanced bone loss, it is obvious that the tooth is going to have a very poor prognosis.

Prognosis in various furcation: (from poorest to best) Maxillary 1st premolar > maxillary molars > mandibular molar

Furcation involvement-

- Most commonly seen in: mandibular 1st molar
- Least commonly seen in: maxillary premolars

Classes of furcation involvement (identified with Naber's probe):

- Class I: Furcation can be probed to a depth of 3 mm One can feel the anatomic fluting between the roots, but cannot engage the roof of the furcation.
- Class II: Furcation can be probed to > 3 mm, but not through and through.
- Class III: Furcation can be completely probed through and through. The probe goes through one furcation and exits through another.
- Class III+: Naber's probe can go halfway across the tooth.
- Class IV: Clinically, the examiner can see through the furcation

3. Primary etiological factor for Aggressive periodontitis is

- a. M tuberculosis
- b. Plaque accumulatio with increased filamentous bacteria
- c. Hypersensitive to bacterial antigen
- d. Reduced immune response to host

Key d (Reduced immune response of the host)

Common features of Aggressive Periodontitis

- No active systemic disease; Otherwise is clinically healthy patient
- Rapid loss of epithelial attachment loss and bone destruction.
- Amount of microbial deposits are inconsistent with disease severity. Little or no plaque may also be seen
- May be generalized or localized; Familial tendency seen
- May show continues progression or spontaneous remission in some cases
- Consistent association with HLA A9 and B15
- Microbiologic and pathologic anomalies: - Near universal occurrence of *Actinobacillus actinomycetem comitans* at diseased sites - Associated Abnormalities in phagocyte or chemotactic function of neutrophil and or monocyte - Hyperresponsive macrophages (↑ prostaglandin E2 (PGE2) and IL-1β)



4. Is not a member of orange complex
- Fusobacterium
 - Prevotella
 - Camphobacter species
 - Actinomycetem comitans

Key d Reference [Carranza 10th Edition]

Red complex bacteria	<i>P. gingivalis</i> , <i>T. forsythia</i> , and <i>T. denticola</i>
Orange Complex	<i>Fusobacterium nucleatum</i> and <i>Prevotella intermedia</i> , <i>Camphobacter</i> species
Green complex	<i>Actinomycetem comitans</i> , <i>E. corrodens</i> , <i>Capnocytophaga</i> spp
Yellow complex	<i>S. mitis</i> , <i>S. sanguis</i> , <i>S. oralis</i>
Purple complex	<i>V. parvula</i> ▪ <i>A. odontolyticus</i>

5. Initial sign of Phenytoin induced gingival enlargement is
- Bleeding from gingiva on probing
 - Pale and fibrotic gingiva
 - Increased sulcus depth on probing
 - Interdental enlargement of papillae

Key d Interdental enlargement of papillae

Reference – Carranza 10th Edition

Phenytoin (Dilantin) hyperplasia: specific points

-Gingival enlargement occurs in about 50% of patients

- Occurs more often in younger patients

-Occurrence· a severity are not necessarily related to the dosage after a threshold level has been exceeded

- Enhanced by presence of plaque

Mechanism of action:

- Sensitization if fibroblast to create more collagen
- Inhibition of collagen degradation by fibroblast (collagenase inactivation)



6. Epithelial attachment to root surface via hemidesmosomes occurs how much time after periodontal surgery
- 1 week
 - 1 month
 - 2 weeks
 - 4 weeks

Key a 1 week

Reference – Carranza 10th Edition

After 1 week, dressings and sutures are removed. The area is usually replaced for another week after which the patient is instructed to use chlorhexidine mouth rinse

7. Predominant inorganic component of supragingival calculus is:
- Magnesium phosphate
 - Calcium phosphate
 - Calcium carbonate
 - Carbon dioxide

Key 'B' [Carranza 11th ed 293 / 10th ed 172]

The inorganic content of supragingival calculus which constitutes about 70-90% includes

- Calcium phosphate - 75.9%

- Calcium carbonate - 3.1%
- Magnesium phosphate – traces

8. When P.D. probing in gingivitis done, depth is measured from
- Base of pocket to CEJ
 - Base of pocket to free marginal gingiva
 - Marginal gingiva to CEJ
 - Junctional epithelium to free gingival margin.

Key B [Reference Carranza 11th Edition]

In gingivitis there is no true pocket formation. Whatever the probing depth measured is the depth of the gingival sulcus.

9. When occlusal forces are increased, the cancellous bony trabeculae?
- Increase in number and thickness
 - Decrease in number and thickness
 - Decrease in number and increase in thickness
 - Remains the same

Key a Reference Carranza 10th ed 459



10. The gracey curette is identified by
- Double curved blade
 - Blade at 70° angle in the shank
 - Both A & B
 - Blade at 30 degrees to the shank
- Key 'C' [Reference Carranza 11th ed 660 / 10th ed 755]
11. According to ADA specification of a tooth-brush, which of the following is false?
- Head of the brush should be 2 inches long
 - 2-4 rows of bristles
 - 5-12 tufts per row
 - 80-86 bristles per tuft
- 'Key A' (Reference Essentials of clinical periodontology by Shanthi Priya Reddy 2nd ed 281)
- There should be 80-86 bristles per tuft
 - Head of the brush should be 1-1/4 inch by length
 - 5/16 - 3/8 inch wide
 - 2-4 rows, 5-12 tufts per row
12. Atridox is a commercially available Local drug delivery system containing:
- 5% Doxycycline
 - 2% Chlorhexidine
 - 10% Doxycyclin
 - 2% Minocyclin
- Key 'c' [Reference Carranza 11th ed 699 / 10th ed 809]
- The chemotherapeutic agents used in local drug delivery system are:
- Actisite - Tetracycline containing fibers.
 - Atridox - 10% doxycycline.
 - Periocline - 2% minocycline.
 - Periochip - A small chip containing 2.5mg of chlorhexidine.
13. In modified Widman flap:
- Internal bevel incision is the last incision
 - Interdental papilla is eliminated
 - Posterior areas are difficult to access
 - Crevicular incision is made from base of the pocket of the bone
- Key 'D' (Reference Carranza 11th ed 825 / 10th ed 940)
- Internal bevel incision is the first incision.
 - Effort is made to adapt the facial and lingual interproximal tissue.
 - Mainly indicated to provide access to the posterior areas



14. Which of the following is used as a bio-degradable membrane in "guided tissue regeneration" process?
- Polylactic acid
 - Poly tetrafluoroethylene
 - Millipore
 - Core membrane

Key A [Reference Carranza 11th ed 870 / 10th ed 973]

The membranes that are kept in GTR technique to prevent migration of epithelium are of two types

Non-degradable	<ul style="list-style-type: none"> ▪ Eg: Polytetra fluoro ethelene ▪ It has to be removed 4 weeks after surgery
Biodegradable	<ul style="list-style-type: none"> ▪ Eg: Polylactic acid Vicryl Synthetic skin (Biobrane) ▪ Resorbed after a few weeks

15. The term gingival ablation indicates
- Gingival recession due to faulty tooth brushing
 - Gingival recession accentuated by prominent palatal root
 - Gingival recession due to friction from hard food
 - Gingival recession due to friction from soft tissue.

Key 'D' [Reference Carranza 11th ed 483]

Gingival recession due to friction from soft tissues is called as "Gingival ablation" while the effects on dentition by action of soft tissues is called as "Frictional ablation".



Prosthodontics:

1. A 15 year old complete denture wearer wants denture replacement. The most suitable impression technique is:
 - a. Dual impression technique
 - b. Selective pressure technique
 - c. Minimal pressure technique
 - d. Pressure technique

Key: b. Exp: selective pressure technique transfers load to acceptable areas. Ref: Boucher's 12th ed.

2. Widest posterior palatal seal is seen in which type of soft palate?
 - a. Class I
 - b. Class II
 - c. Class III
 - d. Class IV

Key: a. Exp: class I has broad, II has medium and III has narrow posterior palatal seal. There is no type IV soft palatal seal. Ref: Bouchers 12th ed. Page number: 342-343

3. Discrepancy between centric relation and centric occlusion is:
 - a. 0.15-0.25mm
 - b. 0.20-0.40mm
 - c. 0.25-0.45mm
 - d. 0.50-1.50mm

Key: d. Exp: this is also called freedom from centric or long centric. Ref: Zarb Bolender 12th ed, page number 284

4. In complete denture patients, f and v sound is used for determining:
 - a. Freeway space
 - b. Closest speaking space
 - c. Anteroposterior relation of maxillary and mandibular teeth
 - d. Labiolingual position of mandibular teth

Key: c. Exp: these labiodental sounds are made between incisal edges of upper incisors and posterior third of lower lip. Ref: Boucher's 12th ed, page number: 383



5. Balancing side contacts in natural teeth:
- Destructs periodontal ligament
 - Provides balanced occlusion
 - Directs force along long axis of tooth
 - Improves muscle balance

Key: a, Exp: it has potential for damaging masticatory apparatus. There will be change in mandibular leverage, placement of force outside long axis of teeth and disruption of muscle function. Ref: Journal of prosthetic dentistry, 1976, 36(1)

6. Principle of tooth preparation may be divided into:
- 2 categories
 - 3 categories
 - 4 categories
 - 5 categories

Key: b, Exp: it has biologic, mechanical and esthetic categories. Ref: Rosenstiel 3rd ed, page number: 166

7. The most ideal finish line for porcelain veneer is:
- Feather
 - Chamfer
 - Beveled chamfer
 - Shoulder

Key: d, Ref: Schillingburg 3rd ed, page number: 142-151

8. Which of the following is the property of ceramic?
- High compressive strength and low tensile strength
 - Low compressive strength and high tensile strength
 - High compressive strength and high tensile strength
 - Low compressive strength and low tensile strength

Key: a, Exp: porcelain are considered brittle for this reason. Ref: Shillingburg 3rd ed, page number: 443



9. Ovate pontics are used in:

- a. Well round ridges
- b. Knife edge ridges
- c. Recently extracted sockets
- d. Flat ridges

Key: c, Exp: socket preservation technique should be followed at the time of extraction to create tissue recess from which the ovate pontic will emerge. Ref: Rosenstiel 3rd ed, page number: 523-24

10. Hybrid prosthesis is:

- a. Fixed appliance with removable component, does not take support from implants
- b. Removable appliance with fixed component
- c. The one which takes support completely from implant
- d. Fixed detachable denture, takes support from implant and mimics soft tissue

Key: d, Exp: these are recommended when there is bone loss in the jaw. These are more natural looking as they mimic soft tissue defects. Ref: Carl E Misch 3rd ed, page number 49

11. The lever action that occurs in distal extension partial denture is:

- a. 1st order
- b. 2nd order
- c. 3rd order
- d. 4th order

Key: a, Exp: The masticatory forces (effort) lift the anterior part of denture (resistance) using direct retainer fulcrum. Ref: Nallaswamy 1st ed, page number: 382

12. Cross section of minor connector designed to closely adapt to tooth surface is:

- a. Round
- b. Triangular
- c. Semicircular
- d. Rectangular

Key: b, Exp: minor connectors should have triangular cross section with thickest portion near the lingual line angle of the tooth and thinnest portion near the buccal line angle. Ref: Nallaswamy 1st ed, page number: 343



13. Indirect retainers in removable partial denture are placed:

- a. In line with direct retainer and close to them
- b. Adjacent to distal extension base
- c. Close to fulcrum axis
- d. As far as possible from distal extension base

Key: d, Exp: the indirect retainer will be more effective if it is placed perpendicular to and as far from the primary fulcrum line as practical. Ref: Stewart 3rd ed, page number: 92

14. Dental surveyor is essentially a:

- a. Caliper like device
- b. Hinge axis bow
- c. Undercut gauzes
- d. Parallelometer

Key: d, Exp: Surveyor is used to determine relative parallelism of two or more surfaces of teeth or other parts of dental cast. Ref: McCracken 11th ed, page number 165, 168

15. Labially inclined anterior teeth preventing conventional clasp designs may be better implemented with the:

- a. Swing lock concept
- b. Snow shoe effect
- c. Kennedy's concept
- d. Boucher's concept

Key: a, Exp: it is the modification in lingual plate to hinged continuous labial bar. Ref: Nallaswamy 1st ed, page number 462



Conservative Dentistry

1. Which of the following statement is incorrect?
 - a. Maxillary functional Cusp are located on the maxillary lingual occlusal line.
 - b. Mandibular functional cusps are located on mandibular facial occlusal line.
 - c. Lingual tilt of posterior teeth decreases the relative height of functional cusp wrt non-functional cusp.**
 - d. Central fossa contact of the functional cusps are obscured by the overlapping non-functional cusp.
Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 18

2. The appearance of Streptococcus Mutans in pits and fissures is usually followed by caries after
 - a. 5 Months
 - b. 3-4 years
 - c. 6-24 Months**
 - d. 5 years

Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 35

3. In Chemical vapour Sterilization temperature and pressure should be
 - a. 270°F and 20 lb pressure for 30 minutes
 - b. 131°C and 20 lb pressure for 30 minutes
 - c. 121°C and 20 lb pressure for 30 minutes
 - d. Both a and b**

Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 97



4. Most current composites are polymerized with the help of light contain which chemical as photo initiator
- Camphoroquinone**
 - Quinone
 - Chloroquinone
 - Hydrocamphoquinone

Key a The vast majority of current composites employ camphoroquinone as the photoinitiator, and it absorbs photons of light energy, predominantly at 474 nm.

Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 226

5. Compared with traditional hybrid composite packable composite are
- Less Stickiness
 - Less Viscosity
 - High Viscosity
 - Both a and c**

Key d Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 229

Packable composites are designed to be inherently more viscous to afford a "feel" upon insertion, similar to that of amalgam. Because of increased viscosity and resistance to packing, some lateral displacement of the matrix band is possible. Currently there are no long-term clinical studies to equate packable composites' promoted benefits with improved clinical results when compared to hybrid composites. Their development is an attempt to accomplish two goals: (1) easier restoration of a proximal contact, and (2) similarity to the handling properties of amalgam. They do not completely accomplish either.

6. Alloys with are presented as alternative to mercury containing amalgam
- Tin
 - Copper
 - Gallium**
 - Silver

Key c Reference – Sturdevent's Art and Science of operative Dentistry South Asian edition Page No. 342

New Amalgam Alloys. Because of the concern about mercury toxicity, many new compositions of amalgam are being promoted as mercury-free or low-mercury amalgam restorative materials. Alloys with gallium or indium or those using cold-welding techniques are presented as alternatives to mercury-containing amalgams.

Unfortunately, none of these new alloys show sufficient promise to become a universal replacement for current amalgam materials



7. All of the following are difference between total etch primer and self-etch primer except
- Bond Strength
 - Wetness of dentine
 - Time of application
 - Removal of smear layer

Key b

(Reference Sturdevent's Art and Science of operative Dentistry, 4th Edition p 247)

Wetness of dentine is a prerequisite for all the dentin bonding agents

The bonding mechanism of SEPs is based on the simultaneous etching and priming of enamel and dentin without rinsing, forming a continuum in the substrate and incorporating smear plugs into the resin tags.

Endodontics

1. Change from reversible pulpitis to irreversible pulpitis occur by
- Invasion of microorganism
 - Strangulation of pulp
 - Increase in the local vascular supply
 - Formation of pulpal abscess

(Key a reference Grossmans Endodontic Practice 11th Edition p70)

A generalized increase in pressure during pulpal inflammation has been theorized to occur and would lead to a generalized collapse of venules and cessation of blood flow (the pupal strangulation theory). It was even suggested that this pressure changes could lead to strangulation of vessels at the apex causing necrosis in.

2. C-fiber occupy approximately what amount of nerve of pulp chamber
- 70%
 - 80%
 - 50%
 - 20%

(Key b Reference Grossmans Endodontic Practice 13th Edition p32)

Approximately 80% of the nerve of the pulp are C fibers and the rest are Aδ fibers.



3. False Negative response in EPT is seen except
- Recently traumatized tooth
 - Recently erupted teeth with immature apex
 - In multirrooted teeth in which pulp is partially necrotic
 - Teeth with extensive restorations or pulp protecting bases under restorations

Key c Reference Textbook Book Of endodontics Nisha Garg 2nd Edition p76

Disadvantages of Electric Pulp Testing Electric pulp testing should not be considered solely for determination of pulp vitality; it should be used in combination with other tests. Various conditions can give rise to wrong results and thus misdiagnosis. These conditions can be as follows:

- In teeth with acute alveolar abscess, false positive response is seen because gaseous or liquefied products within the pulp canal can transmit electric current.
- Electrode may contact gingival tissue thus giving the false positive response.
- In multirrooted teeth, pulp may be vital in one or more root canals and necrosed in others, thus eliciting a false positive response.
- In certain conditions, it can give false negative response, for example:
 - Recently traumatized tooth
 - Recently erupted teeth with immature apex
 - Patients with high pain threshold
 - Calcified canals
 - Poor battery or electrical deficiency in plug in pulp testers.
 - Teeth with extensive restorations or pulp protecting bases under restorations
 - Patients premedicated with analgesics or tranquilizers, etc.
 - Partial necrosis of pulp sometimes is indicated as totally necrosis by electric pulp tester.

4. Most affected teeth due to condensing osteitis are
- Lower anterior
 - Upper anterior
 - Lower posterior
 - Upper posterior

Key c Lower Posterior Reference Grossmans Endodontic Practice 13th Edition



5. While you are preparing access cavity you see dark grey or black colour which are you are supposed to be in
- Dentin
 - Floor of pulp chamber
 - Root canal orifice
 - Pulp stone
- Key C Root canal orifice Reference Grossman's Endodontic practice page no 248

Clinical Guide to colour

Enamel	White
Dentin	Yellow
Floor of the pulp chamber	Gray
Root canal orifice	Dark gray or black
Pulp stone	Pearly white/dark yellow

6. In canal that are calcified or with obstructions which files are recommended for use
- Size 6k file
 - C+ file
 - Profinder files
 - All of the above
- Key d Reference Grossman's Endodontic practice 13th edition page no 302
7. Glass ionomer cement is used as a barrier over guttapercha filing before bleaching an endodontically treated discolored tooth.
- To prevent bleaching agent from dissolving the guttapercha.
 - To prevent percolation of the bleaching agent into the apical area
 - To prevent contamination of bleaching agent
 - To prevent discoloration of tooth from obturating material
- Key B' [Grossman 12th ed 349]
- Quality of seal in the apical part as well coronal part of the root canal system is important to prevent percolation of fluids.
 - In non-vital bleaching, Cavit or GIC or MTA is placed as a barrier material over the root canal filling material.
 - The level of barrier should be Imm incisal to CEJ.
 - This prevents percolation of bleaching agent into the root canal filling and nearby into the periapex.
 - This also confines the bleaching agent to the crown thereby preventing cervical root resorption.



8. DIFOTI is useful for detection of:
- Occlusal caries
 - Bone loss in children
 - Calcium content of enamel
 - Proximal caries

Key d ' i.e. "Proximal caries"

DIFOTI (Digital Imaging Fiber-Optic Trans-Illumination) is a newer diagnostic aid which fiber-optic light to study the enamel opalescence. A change in refraction of light as it passes through the tooth is used to assess the presence of caries. The best indication of DIFOTI is to detect the presence of proximal decay which is not easy to diagnose by clinical examination.

Advantages of DIFOTI

- No ionizing radiation
- No film
- Real-time diagnosis
- Higher sensitivity in detecting early lesions not apparent to x-ray.
- Monitor quantitatively



ORAL AND MAXILLOFACIAL SURGERY

1. Most common type of facial fracture is
 - a. Mandible fracture
 - b. Nasal bone fracture
 - c. Lefort I fracture
 - d. Zygomatic arch fracture

Ans. b

[Oral and Maxillofacial Surgery Review DM Laskin page – 178]

Nasal bone fracture is the most common facial bone fracture.

2. In which of the following condition heavier reconstruction plate is used for ORIF?
 - a. Lefort I fracture
 - b. Lefort II fracture
 - c. Lefort III fracture
 - d. Atrophic mandible fracture

Ans. d

[Oral and Maxillofacial Surgery Review DM Laskin page –176]

Reconstruction plates are not used for ORIF of Lefort fractures. Atrophic mandible (<15mm height) is best treated by reconstruction plate to provide load bearing osteosynthesis. Smaller plates used in this case has higher chance of plate fracture as post operative complication. Other conditions where reconstruction plate is used is comminuted mandibular fracture, defect fracture and infected mandible fracture.

3. Ring of fibrous tissue surrounding the optic nerve at the apex of the orbit is called
 - a. Whitnall ligament
 - b. Lockwood ligament
 - c. Tenon capsule
 - d. Annulus of Zinn

Ans. d

[Oral and Maxillofacial Surgery Review DM Laskin page –184]

Annulus of Zinn is fibrous tissue surrounding the optic nerve at apex of orbit and it provides origin of all extraocular muscles except inferior oblique muscle.



4. Which of the following incision does not help for reconstruction of orbital floor fractures?
- Subciliary incision
 - Transconjunctival incision
 - Infraorbital incision
 - Coronal incision

Ans. d

[Oral and Maxillofacial Surgery Review DM Laskin page -185]

Coronal incision can be used for management of fractured zygoma, frontal bone and can be elevated below the superior orbital rim for access to the orbital roof and medial and lateral walls of orbit. However it can not be solely used for exposure of orbital floor. Incisions mentioned in options a, b and c can be used for exposure of orbital floor.

5. Which of the following shows snowflake pattern in radiograph?
- Pindborg tumor
 - Ameloblastoma
 - Odontogenic keratocyst
 - Compound odontome

Ans a

[Oral and Maxillofacial Surgery Review DM Laskin page -198]

Pindborg tumor also known as calcifying epithelial odontogenic tumor (CEOT) shows well defined mixed radioluscent-radiopaque unilocular or multilocular presentation known as snowflake pattern in radiograph.

6. Which of the following is associated with "punched-out" radioluscentcy?
- Multiple Myeloma
 - Osteosarcoma
 - Fibrosarcoma
 - Malignant fibrous histiocytoma

Ans. a

[Oral and Maxillofacial Surgery Review DM Laskin page -218]

Multiple myeloma is the malignancy of plasma cell origin with jaw lesions in 30% of cases and punched out lesion on radiographs are its characteristic feature.



7. Which of the following is not developmental cyst of maxillofacial region?
- Dentigerous cyst
 - OKC
 - Lateral periodontal cyst
 - Radicular cyst

Ans. d

[Oral and Maxillofacial Surgery Review DM Laskin page -219]

Radicular cyst also known as periapical cyst is inflammatory in origin.

8. Sialolithiasis is most common in
- Parotid gland
 - Submandibular gland
 - Sublingual gland
 - Minor salivary gland

Ans. b

[Oral and Maxillofacial Surgery Review DM Laskin page -226]

Sialolithiasis is the obstructive disease of the salivary glands with frequency in decreasing order as submandibular > parotid > minor > sublingual.

9. Latest TNM classification for oral cancer was given in
- 2016
 - 2017
 - 2018
 - 2019

Ans. c

[American Joint Committee on Cancer (AJCC) introduced Cancer Staging Manual, Eighth Edition last updated 05 June 2018.]

10. The three Hs (Hypocellularity, Hypovascularity, and Hypoxia) responsible for osteoradionecrosis is based on
- Meyer theory
 - Marx theory
 - Delanian radiation-induced fibroatrophic theory
 - 3H is included in all theories mentioned above

Ans. b

[Oral and Maxillofacial Surgery Review DM Laskin page -265]



11. Café au lait spots are associated with
- Neurofibromatosis type I
 - McCune Albright syndrome
 - Gorlin syndrome
 - All of the above

Ans. d

[Oral and Maxillofacial Surgery Review DM Laskin page -269]

12. During which phase of wound healing, cross linking of collagen occurs?
- Inflammation
 - Proliferation
 - Remodeling
 - None of the above

Ans. c

[Oral and Maxillofacial Surgery Review DM Laskin page -276]

13. Two needles are inserted in the superior compartment of TMJ. Ringers lactate is pushed thorough one needle and it comes out through other needle. This process is
- Arthrocentesis
 - Diagnostic arthroscopy
 - Operative arthroscopy
 - None of the above

Ans. a

[Oral and Maxillofacial Surgery Review DM Laskin page -347]

Arthrocentesis is the process of lavage and lysis of the TMJ, done with the help of 2 18G needles as described in the question. For options b and c, arthroscope is used.

14. Which of the following is classification system for TMJ ankylosis?
- Topazain
 - Sawhney
 - He et al
 - All of the above

Ans d

[Oral and Maxillofacial Surgery Review DM Laskin page -350]

All are classification systems used for TMJ ankylosis, Topazian system being the first and oldest.



15. A patient complains of frequent locking of jaw while yawning which gets corrected by adjusting mandible by himself. This condition is known as
- Trismus
 - Pseudo-ankylosis
 - Subluxation
 - Dislocation

Ans. c

[Oral and Maxillofacial Surgery Review DM Laskin page -352]

Subluxation is the self reducing derangement between the articulating components of the joint in which the condylar position is anterior to the articular eminence on wide opening of mouth.



Community Dentistry

- 1) Which one of the following are not the approaches for primary prevention as recommended by WHO?
- a) Population strategy
 - b) Primordial prevention
 - c) Low risk strategy
 - d) High risk strategy

Ans: c

- 2) Which of the following expresses the relation in magnitude of a part of the whole?
- a) Ratio
 - b) Rate
 - c) Incidence
 - d) Proportion

Ans: d

- 3) How much turbidity is acceptable for drinking water?
- a) <20NPU
 - b) <15NPU
 - c) <10NPU
 - d) <5NPU

Ans: d

- 4) For an approach to health promotion, bottom-up approach is also called as
- a) Preventive approach
 - b) Educational approach
 - c) Empowerment approach
 - d) Behavior approach

Ans: c

- 5) Caries promoting trace element in dental caries?
- a) Co
 - b) Mg
 - c) Cu
 - d) Al

Ans: b



- 6) It is the requirement for care as determined by expert opinion?
- a) Normative need
 - b) Perceived need
 - c) Expressed need
 - d) Expert need

Ans: a

- 7) Social sciences does not include
- a) Psychology
 - b) Cultural anthropology
 - c) Sociology
 - d) Economical science

Ans: d

- 8) The minimum infective dose of *S. mutans* in man is?
- a) 10^2 - 10^3 *S. mutans* per ml of saliva
 - b) 10^3 - 10^4 *S. mutans* per ml of saliva
 - c) 10^4 - 10^5 *S. mutans* per ml of saliva
 - d) 10^5 - 10^6 *S. mutans* per ml of saliva

Ans: c

- 9) Which is not the key microorganisms in periodontal disease ?
- a) *Lactobacillus*
 - b) *T. forsythia*
 - c) *A. actinomycetemcomitans*
 - d) *P. gingivalis*

Ans: a

- 10) Which of the following is not a smoked form of tobacco?
- a) Hookli
 - b) Snuff
 - c) Chutta
 - d) Dhumti

Ans: b



ANATOMY

1. Hassall's corpuscle is presented in:

- a. Thymus
- b. Liver
- c. Spleen
- d. Lung

(Hassall's corpuscle is a spherical body present in the medulla of thymus)

2. The testicular vein in the left side drains into:

- a. Inferior venacava
- b. Left internal iliac vein
- c. Left renal Vein
- d. External iliac vein

(Right testicular vein drains into Inferior venacava and Left testicular vein drains into left renal vein)

3. Which of the following gland is supplied by inferior salivatory nucleus:

- a. Sublingual gland
- b. Parotid gland
- c. Lacrimal gland
- d. Submandibular gland

(Superior salivatory nucleus supplies – submandibular and sub lingual salivary gland
Inferior salivatory nucleus supplies – parotid gland)

4. The root value of knee jerk is:

- a. L2-L3
- b. L3-L4
- c. L1-L4
- d. L5-S1

(Knee jerk: L3L4

Ankle jerk: S1

Planter response: S1S2

Biceps jerk: C5C6)

5. Umbilical cord has:

- a. 1 artery, 1 vein
- b. 2 artery, 1 vein
- c. 1 artery, 2 vein
- d. 2 artery, 2 vein



PATHOLOGY

1. Negri bodies are diagnostic findings in:

- a. AIDS
- b. **Rabies**
- c. Herpes infection
- d. Encephalitis

(Negri bodies are eosinophilic cytoplasmic inclusion bodies found in brain neurons. They are mostly seen in **purkinje cells of cerebellum and in pyramidal cells in hippocampus**)

2. Neoplastic cells derive energy by:

- a. Increased mitochondrial activity
- b. **High rate of glycolysis**
- c. Krebs's cycle
- d. HMP shunt

3. Which of the following is not a cause of microcytic hypochromic anemia:

- a. **Excessive bleeding**
- b. Sideroblastic anemia
- c. Iron deficiency anemia
- d. Lead poisoning

(SITA = Sideroblastic anemia, IDA, Thalassemia, Anemia of chronic diseases causes hypochromic microcytic anemia, where MCV is less than 80 fl)

4. Smoking is protective factor for:

- a. Familial polyposis
- b. Crohn's disease
- c. **Ulcerative colitis**
- d. Migraine

(The key is probably the nicotine in cigarette **smoke**. According to Crohn's and **Colitis UK**, nicotine may suppress your immune system, decrease the inflammation of **ulcerative colitis**, and boost production of the mucus in the colon that acts as a **protective barrier**)

5. A woman with infertility received an ovary transplant from her identical twin sister. What type of graft is it?

- a. Xenograft
- b. Autograft
- c. Allograft
- d. **Isograft**

(Autograft – Graft in the same body)

Isograft – Graft between identical twins

Allograft – Graft between same species but not identical twins

Xenograft – Graft between different species)



PHARMACOLOGY

1. A farmer was spraying insecticides in his paddy field. Few hours later he developed feeble pulse, pulse-52/min, hypotensive, pupil constricted, salivation, lacrimation. The treatment of the farmer is:

- a. Activated charcoal
- b. Gastric lavage
- c. **Atropinization**
- d. I/V fluid

(The mainstays of medical therapy in organophosphate (OP) poisoning include **atropine**, pralidoxime (2-PAM), and benzodiazepines (eg, diazepam). Initial management must focus on adequate use of **atropine**)

2. Drug of choice of PSVT

- a. **Adenosine**
- b. Digoxin
- c. Beta blocker
- d. Calcium channel blocker

(Adenosine is a short-acting medication that is commonly used as a first-line drug to treat **PSVT**)

3. Which of the following is proton pump inhibitor?

- a. Bismuth
- b. **Omeprazole**
- c. Metoclopramide
- d. Domperidone

4. Which one of the following drug is used for cycloplegia?

- a. Corticosteroid
- b. **Atropine**
- c. Acetazolamide
- d. Pilocarpine

(**Atropine** is the most potent of the **cycloplegic** agents and has a slow onset of effect with duration of action lasting up to 2 weeks)

5. Hypertension in pregnancy should not be treated with

- a. Methyldopa
- b. Diazoxide
- c. Hydralazine
- d. **ACE Inhibitor**

(**ACE**) inhibitors are **contraindicated** during the second and third trimesters of **pregnancy** because of increased risk of fetal renal damage)



MICROBIOLOGY

1. HIV positive patient shouldn't be given

- | | |
|---------------|------------|
| a. MMR | b. DPT |
| c. BCG | d. Tetanus |

(Live vaccines are avoided in immunocompromised patients)

2. Mantoux test interpretation done in

- | | |
|------------------|-----------|
| a. 24 hrs | b. 12 hrs |
| c. 48 hrs | d. 72 hrs |

(The induration should be measured across the forearm, perpendicular to the axis between your hand and elbow. Several factors affect how the **test** is interpreted. An induration of less than 5 millimeters (mm) is considered a **negative test result.**)

3. The causative agent for acute osteomyelitis

- | | |
|---------------------------------|------------------------------|
| a. Staphylococcus aureus | b. Staphylococcus pneumoniae |
| c. Salmonella | d. H. influenza |

4. Commonest organism causing acute epiglottitis:

- | | |
|-----------------------------|--------------------------|
| a. H. influenza | b. Staphylococcus aureus |
| c. Streptococcus pneumoniae | d. Pseudomonas |

5. An enzyme that makes a double stranded DNA copy from a single stranded RNA template molecule is known as:

- | | |
|---------------------------------|-------------------|
| a. DNA polymerase | b. RNA polymerase |
| c. Reverse transcriptase | d. Phosphokinase |

(**Reverse transcriptase**, also called RNA-directed DNA polymerase, an **enzyme** encoded from the genetic material of retroviruses that catalyzes the **transcription** of retrovirus RNA (ribonucleic acid) into DNA (deoxyribonucleic acid))

BIOCHEMISTRY

1. Carbondioxide is transported from tissues to lungs most abundant in which form?

- Carbaminohemoglobin
- Bicarbonate**
- Dissolved form
- All

2. Acetyl-CoA carboxylase converts:

- Acetyl-CoA to mevalonate
- Mevalonate to Acetyl-CoA
- Acetyl-CoA to malonyl-CoA
- Malonyl-CoA to Acetyl-CoA

Ans: c



Ref: Harper Biochemistry 30th Edition, Page No: 243

(Acetyl-CoA carboxylase converts acetyl-CoA to malonyl-CoA, and then fatty acid synthase, a multienzyme complex consisting of two identical polypeptide chains, each containing six separate enzymatic activities and ACP, catalyzes the formation of palmitate from one acetyl-CoA and seven malonyl-CoA molecules)

3. Thymine is produced by deamination of:

- a. Cytosine
- b. Adenine
- c. Guanine
- d. 5-methylcytosine

Ans: d

(Deamination reactions:

- Cytosine: Uracil
- Adenine: Hypoxanthine
- Guanine: Xanthine
- 5-methylcytosine: Thymine)

4. Spatial relationship between various types of polypeptides in protein is depicted by:

- a. Primary structure
- b. Secondary structure
- c. Tertiary structure
- d. Quaternary structure

Ans: d

Ref: Harper Biochemistry 30th Edition, Page No: 47

5. A Codon consists of:

- a. 2 complementary base pair
- b. 3 complementary base pair
- c. 4 complementary base pair
- d. 5 complementary base pair

Ans: b



PHYSIOLOGY

1. **Body fat can be estimated from measurement of**
 - a. **Body density**
 - b. total body water
 - c. Total body sodium
 - d. All of the above
2. **The maximum conduction velocity is at**
 - a. SA node
 - b. Bundle of his
 - c. AV node
 - d. **Purkinje fiber**
3. **PH of Blood is**
 - a. **7.35-7.45**
 - b. 7.8-7.9
 - c. 7.1-7.2
 - d. 7.2-7.3
4. **HCl produced by Gastric secretion helps in**
 - a. **Protein digestion**
 - b. Fat digestion
 - c. Carbohydrate digestion
 - d. All of the above
5. **The main excitatory transmitter in CNS is**
 - a. Glycine
 - b. **Acetylcholine**
 - c. Aspartate
 - d. Glutamate



Oral Biology

1. On opening the mouth, if the jaw deviates to the right side, it indicates the paralysis of:
 - a. Right lateral pterygoid
 - b. Left lateral pterygoid
 - c. Right medial pterygoid
 - d. Left medial pterygoid

Key 'A' [Reference Wheeler's 8th ed 421/ 9th ed 2 66]

2. Which of the following is true about calcification of teeth?
 - a. Calcification of primary teeth is almost complete at time of birth
 - b. Calcification of all primary teeth and few permanent teeth complete at birth
 - c. Calcification of all permanent teeth complete at birth
 - d. Calcification of primary teeth starts around birth

Key 'A' [Reference Wheeler's 8th ed 51/ 9th ed 37, Tab 2-4]

3. The maxillary molar crown of an early fossil primate featured a trigone made of three main cusps; these cusps were:
 - a. Distobuccal, distolingual and Mesiolingual
 - b. Distolingual, Mesibuccal, and linguo buccal
 - c. Mesibuccal, Distobuccal and Mesiolingual
 - d. Mesiolingual, Mesibuccal and distolingual

Key 'C' [Reference Wheeler's 8th ed 276/ 9th ed 7]

4. Following is derivative of dental lamina:
 - a. Epithelial rests of Malassez
 - b. Enamel pearls
 - c. Rests of serres
 - d. All of the above

Key 'C' [Reference Orban's 13th ed 26] Options 'C' rests of serres are remnants of dental laminal epithelium entrapped within gingiva. Option 'A& B' are remnants of Hertwig epithelial root sheath.



5. Incremental lines of Retzius appear
- a. As lines in the enamel running at right angles to the enamel surface
 - b. As lines in the dentin running at right angles to the dentine-enamel junction
 - c. In enamel and follow the apposition pattern
 - d. In dentin and follow the appositional pattern
- Key 'C' [Reference Orban's 11th ed 60/ 12th ed 61/ 13th ed 57)



Dental Materials

1. The role of itaconic acid copolymer in glass ionomer cement:
 - a) **Reduces the viscosity of the liquid and inhibits gelation**
 - b) Increases the viscosity of the liquid and accelerates gelation
 - c) Increases cohesion
 - d) To provide radiolucency

key a [Phillips 11th ed 472]

2. Munsell system is used to:
 - a. Define and measure colour qualitatively
 - b. Define and measure physical properties of gold alloys
 - c. Evaluate brittleness of different alloys
 - d. Measures different colours quantitatively

Key D [Reference Manappallil 2nd ed 23]

One of the most commonly used method to define and measure colour quantitatively is the "MUNSELL SYSTEM". In this system the parameters of color are represented in 3 dimensions

3. The ran king of tear strength from the lowest to highest of all impression materials generally is as follows
 - a. Hydrocolloids, silicones, polyether, polysulfide
 - b. Silicones, hydrocolloids, polyether, polysulfide
 - c. Polysulfide, hydrncolloids, silicones, polyether
 - d. Hydrocolloids, polyether, silicones, polysulfide

Key a' [Reference PHILLIPS' 11th ed 232, 244/ 12th ed 169 Tab 8-6]

4. 2% solution of borax is used as a surface hardening agent for
 - a. Casting stone
 - b. Dental plaster
 - c. Dental stone
 - d. Type IV gypsum

Key B Reference Philips

5. Polymerisation of heat-cured methyl methacrylate is initiated by:
 - a. Tertiary amine
 - b. Benzoyl peroxide free radical
 - c. Hydroquinone
 - d. Methyl ether

Key 'B' [Reference PHILLIPS' 11th ed 722/ 12th ed 475]



Forensic Odontology

1. Kerosene-like smell is found in the stomach contents in poisoning by:
 - a. Carbolic acid
 - b. Organophosphorus compounds
 - c. Yellow phosphorus
 - d. Hydrocyanic acidKey B

2. All of the following are examples of Res ipsa loquitur EXCEPT:
 - a. Prescribing an overdose of medicine producing ill effects
 - b. Grossly incompetent administration of general anaesthesia by an anaesthetist
 - c. Mismatched blood transfusion
 - d. Amputation of wrong limbKey B

3. In case of assault, if the doctor is negligent in the treatment of the patient, he may be held responsible for subsequent disability or death under the principle of:
 - a. "calculated risk cases"
 - b. Medical maloccurrence
 - c. Novus Actus Interveniens
 - d. Res Ipsa LoquiturKey c

4. In female skeleton the long bones are:
 - a. 5% smaller than the male
 - b. 8% smaller than the male
 - c. 10% smaller than the male
 - d. 12% smaller than the maleKey B



5. Mention the age above which a person can give valid consent for major surgery:

- a) 12 years
- b) 16 years
- c) 18 years
- d) 21 years

Key b



General Surgery

1. Sjogren's syndrome is associated with
 - a. Rheumatoid arthritis
 - b. SLE
 - c. Scleroderma
 - d. All of the above

Key 'D' [Belly & Love 23rd ed Page no 1947]

2. Which one of the following nerves is most commonly encountered during submandibular gland resection?
 - a. Lingual nerve
 - b. Hypoglossal nerve
 - c. Inferior alveolar Nerve
 - d. Marginal mandibular nerve

Key 'a' [B & L 24th ed 732]

i.e, lingual followed by hypoglossal nerves are most commonly involved nerves during removal of submandibular gland

3. In Ludwig's angina, the 1st step when patient report to emergency room:
 - a. Incision & drainage under local anaesthesia
 - b. Tracheostomy under general anaesthesia
 - c. Tracheostomy under local anaesthesia
 - d. I/V antibiotics and fluids

Key c [Reference Ludwings angina: Diagnosis and treatment/ turnerwhite.com]

 - Because morbidity and mortality in Ludwig's angina are primarily related to loss of airway patency, protection of the airway takes highest priority in the initial management of affected patients.
 - Patients who are in more immediate jeopardy, airway control is best achieved with cricothyroidotomy or formal tracheostomy under local anesthesia (General anesthesia takes more time).
 - The next step after airway is secured is administration of I.V. antibiotics.



4. In a bus accident which patient is given more priority to shift to the hospital?

- a. Severe haemorrhage with leg fracture
- b. Head injury
- c. Circulation shock
- d. Airway obstruction

Key 'A' [Bailey & Love 26th ed 289]

During Mass casualties, where the number and severity of the injuries exceed the capability and facilities available to the staff, those with the greatest chance of survival and the least expenditure of time, equipment and supplies are given more priority to shift to the hospital.

5. Marjolin's ulcer is

- a. Squamous cell carcinoma from scar
- b. Adenoma of scar
- c. Tuberculous ulcer
- d. Amoebic ulcer

Key A' [B & L 23rd ed 148]

Marjolins ulcer	Malignant ulcer that develops from a scar or burn
Martorell ulcer	Hypertensive ulcer
Bazin's ulcer	Erythrocyanoid ulcer found in young adolescent girls
Cryopathic ulcer	Ulcers due to cold injury and chilblains
Trophic ulcer	Bed sore ulcer
Tropical ulcer	Ulcer due to infection by Vincents organisms
Rodent ulcer	Basal cell carcinoma



General Medicine

1. In a pregnant woman, which of the following vaccines is not indicated:
- MMR
 - Hepatitis B
 - DPT
 - Rabies

Key A i.e. MMR Ref Vaccinations in Pregnancy. Am Fam Physician. 2003 15;68(2):299-309;

As rubella is a live attenuated vaccine, it should not be given to immunocompromised patients, with the exception of HIV-positive individuals, or to women who are pregnant

Considered safe if otherwise Indicated	Contraindicated/safety not established in pregnancy	Especial recommendation
Tetanus and diphtheria toxoids Influenza Meningococcal Rabies Hepatitis B	BCG* Measles* Mumps* Rubella* Varicella *	Anthrax Hepatitis A Japanese encephalitis Pneumococcal Polio (IPV) Typhoid Vaccinia Yellow fever

2. A patient was administered amoxicillin for an infection. After 2 days, the patient developed fever, lymphadenopathy, tachycardia, hypotension. He had no previous history of exposure to amoxicillin. His blood picture revealed haemolytic reaction with diffuse intravascular coagulation. The blood sample was positive for the presence of antibodies against amoxicillin. This type of autoimmune reaction is classified as:
- Type I hypersensitivity
 - Type 2 hypersensitivity
 - Type 3 hypersensitivity
 - Type 4 hypersensitivity

Key B i.e. Type 2 hypersensitivity Ref Irwin & Rippe's, 6th12246; Rubin's, 6th178

The question says that there is no previous exposure to the drug. Well if that is presumed, then none of the choices can be the answer as prior exposure to allergen is essential for manifestation of any allergic reaction. So here we presume that the patient did not remember history of prior exposure to the drug. The clinical picture is very much in favours of a Type 2 hypersensitivity reaction. Haemolysis and DIC after a few hours/days of exposure to antigen is suggestive of Type II hypersensitivity reaction.

The difference is that anaphylactic shock is sudden and characterized by respiratory distress while haemolysis and DIC are characteristic of Type II reaction.



3. To measure the peripheral vascular resistance which of the following should be used:
- Diastolic aortic pressure as it reduces till mid-thoracic aorta and increases thereafter
 - Systolic aortic pressure as it increases throughout the ascending aorta
 - Pulse pressure as it signifies the difference in systolic and diastolic pressure
 - Mean arterial pressure as it remains constant
- Key D i.e. Mean arterial pressure as it remains constant Catheterization
4. A 78-year-old male presents with headache, visual disturbances and tenderness over the right temporal region. A biopsy taken from the right temporal artery is most likely to show:
- Acute organizing thrombus formation
 - Granulomatous inflammation with giant cells
 - Terminal thrombosis
 - Aneurysmal dilation with subintimal inflammation
- Key B Granulomatous inflammation with giant cells

5. Paradoxical movement of chest in a patient who has suffered trauma is called:
- Flail chest
 - Cardiac tamponade
 - Dyspnoea
 - Pneumothora

Key a i.e. "Flail chest" Ref [http://www.trauma.org!archivelthoracic!CHESTJ\[ai/.html](http://www.trauma.org!archivelthoracic!CHESTJ[ai/.html)

A flail chest is identified as paradoxical movement of a segment of the chest wall – i.e. indrawing on inspiration and moving outwards on expiration.

Flail Chest

- A flail chest occurs when a segment of the thoracic cage is separated from the rest of the chest wall.
- Defined as at least two fractures per rib (producing a free segment), in at least two ribs.
- A segment of the chest wall that is flail is unable to contribute to lung expansion.

Clinical significance

- The main significance of a flail chest is that it indicates the presence of an underlying pulmonary contusion
- Flail chest may cause emergency also because of the patient to ventilate nonnatiy

Clinical features:

Usually accompanied by bruising, grazes or injury signs on chest

Palpation may reveal the crepitus associated with broken ribs

Paradoxical movement of chest wall of affected area Patients will complain of pain on palpation of the best wall or on inspiration



Management:

- Emergency management includes maintenance of the vitals especially the respiratory distress by intubation, reduction of pain by anaesthesia, mechanical ventilation and management of underlying lung injury.
- Definitive management includes fixation of the fractured ribs and treatment of the lung injury.

ANESTHESIA

1. Which reduces the duration of anesthesia?
 - a. Tachyphylaxis
 - b. Decreased vascularity
 - c. Increased protein binding
 - d. Addition of vasopressor

Ans. a

[Handbook of Local anesthesia, SF Malamed, 6 edition, page 23]

Tachyphylaxis, the increased tolerance of readministered drug, significantly reduces the duration of local anesthesia.

2. Local anesthetics must enter the bloodstream to elicit a pharmacologic effect. Once in the bloodstream, anesthetic drugs are transported to every part of the body.
 - a. Both statements are true.
 - b. Both statements are false.
 - c. The first statement is true, the second is false.
 - d. The first statement is false, the second is true.

Ans. d

[Handbook of Local anesthesia, SF Malamed, 6 edition, page 25]

First statement is false as local anesthetics become ineffective once they enter the circulatory system. Second statement is true as once in bloodstream, local anesthetics are carried throughout the body.



3. Vasoconstrictors are added to local anesthetic solutions to
- Counteract the intrinsic vasodilation
 - Reduce the possibility of vasculitis
 - Boost an inherent vasoconstriction
 - Prevent blood vessel wall collapse

Ans. a

[Handbook of Local anesthesia, SF Malamed, 6 edition, page 39]

Injectable local anesthetics are vasodilators, so vasoconstrictors are added to solution to counteract this intrinsic vasodilation.

4. Which is absolute contraindication for local anesthetic use?
- Renal dysfunction
 - Cardiovascular disease
 - Local anesthetic allergy
 - Atypical plasma cholinesterase

Ans c

[Handbook of Local anesthesia, SF Malamed, 6 edition, page 53, table 4-2]

5. Which combination forms day care anesthesia?
- Fentanyl, propofol, isoflurane
 - Pethidine, propofol, isoflurane
 - Thiopental, pethidine, halothane
 - Thiopental, isoflurane, fentanyl

Ans a

[Anesthesia by Ajay yadav 3rd edi page 75, 83]

Fentanyl has rapid onset (2 to 5 minutes) and rapid recovery (1 to 2 hours).

Propofol has early induction, early and smooth recovery, inactive metabolites and antiemetic properties.

Isoflurane has moderate induction, potency and recovery time.

These properties make these drugs suitable for day care anesthesia



NMC CPD topics :

1. One of the following does not fall under principles of good clinical practice:
 - a. Clinical trials should be scientifically sound and described in a clear and brief protocol.
 - b. The available nonclinical and clinical information on an investigational product should be adequate to support the proposed clinical trial.
 - c. Freely given informed consent should be obtained from every subject prior to clinical trial participation
 - d. Systems with procedures that assure the quality of every aspect of the trial should be implemented

Key: a, Exp: the principles of good clinical practice states that clinical trials should be scientifically sound and described in a clear and detailed protocol. Ref: Burkett 12th ed, page number: 24

2. There is a "reasonable possibility" of a causal relationship between the drug and the adverse event, this means:
 - a. Suspected adverse reaction
 - b. Adverse events
 - c. Serious adverse events
 - d. Unanticipated problem

Key: a,

Exp: the above sentence is the definition provided for suspected adverse reaction of a drug.
Ref: Burkett 12th ed, page number: 26



3. The antemortem and post-mortem data are in agreement but the available information is insufficient in terms of quality. This is:

- a. Insufficient information
- b. Possible identification
- c. Probable identification
- d. Excludes identification

Key: b,

Exp: the available information neither permits definitive identification nor enables identity to be excluded. Ref: shafer's 6th ed, page number: 875

4. The most important consideration regarding the information in informed consent is:

- a. It be understood by the patient
- b. It must be communicated free of emotion
- c. It must be technically accurate
- d. It must be delivered in writing

Key: a

5. Behavioral Sciences the Bio- Psycho- Social (BPS) model of health care is best described as:

- a. The management of Psychological and social Issues of patients
- b. Biological aspects of disease being more being more important than psychosocial aspects.
- c. Use of social and psychological factors alongside the biological aspects of the illness
- d. A method in which a patient should be seen psychologist and a social worker.

Key: c



6. Which of the following increases the risk of wrong-site surgery?

- a. Surgery late in the day
- b. Thin patient
- c. Surgeon running multiple rooms
- d. Multiple surgeons involved in the same operation

Key: d

7. The classification of patients as, intellectually subnormal, or confused, may put ethical consideration on:

- a. They can never be guilty of negligence
- b. Their ability to give informed consent
- c. Their autonomy
- d. Healthcare workers are sometimes cruel

Key: b

Ref: 4-7 (Legal medicine and medical ethics, Prof Ahmed Ammar)

8. What is the compression to breath ratio in two person CPR for adult?

- a. 20:2
- b. 30:2
- c. 40:2
- d. 25:2

Key: b, Exp: The compression to rescue breath ratio has long been 30:2 in CPR, showing effective circulation to oxygenation levels in studies.

9. You just performed 5 cycles of CPR in an adult. You reassess for pulse but it is not present. What is your next course of action?

- a. Search for an AED
- b. Call emergency team
- c. Immediately reinitiate CPR
- d. Wait for your friend to respond

Key: c, Exp: Providing CPR with little to no interruptions is a primary concern and should be a main priority when there is limited information presented.



10. Where should you palpate for pulse on an unconscious adult during CPR?

- a. Carotid pulse
- b. Radial pulse
- c. Femoral pulse
- d. Brachial pulse

Key: a. Exp: The carotid pulse is relatively easy to find and is an effective indicator of general organ circulation.

Ref: 8-10: United Medical education, BLS pretest questions and answers