

PROVISIONAL ANSWER KEY

Question 66/2025/OL

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Exam: Assistant Professor in Plastic and Reconstructive Surgery

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Department Medical Education

Question1:-Reconstruction of which part of the body was described in an Indian Publication, the Sanhita about 600 B.C

A:-Face

B:-Nose

C:-Ear

D:-Hand

Correct Answer:- Option-B

Question2:-What are the function of skin?

A:-It plays an important role as a sensory organ

B:-It plays an important role in Thermoregulations

C:-Skin is important in Vit D metabolism

D:-All of the above

Correct Answer:- Option-D

Question3:-All are the options/indication for skin grafting except

A:-Any traumatic defect which can not be closed primarily

B:-Defects after oncologic resection

C:-Nipple aerola reconstruction

D:-Wound due to malignant neoplasia

Correct Answer:- Option-D

Question4:-All are the reasons for graft failure except

A:-Graft placed in a vascular bed

B:-Infection

C:-Haematoma

D:-Defects after oncologic resection

Correct Answer:- Option-D

Question5:-All are true about Z-Plasty except

A:-Z-plasty is inter digitalizing two triangular flap

B:-Z-plasty changes the direction of scar

C:-It lengthens the scar along its long axis

D:-Z-plasty is an example of distant flap

Correct Answer:- Option-D

Question6:-All are true about flaps except

A:-Flap carries its own blood supply

B:-Flap can be local, distant and regional

C:-Flap vascularity can be detached from one side and re-attached in another side

D:-Flap survives by the blood supply from the bed of the wound

Correct Answer:- Option-D

Question7:-According to Mathes-Nahai classification of Muscle and musculocutaneous there are _____ types.

A:-2

B:-3

C:-4

D:-5

Correct Answer:- Option-D

Question8:-All are true about tissue expansion except

A:-A silastic bag like inflated ballonn is placed under skin

B:-The silastic bag to be inflated gradually every weekly

C:-Expansion should not be done immediately after insertion

D:-In this method only local tissue can be expanded adjacent to the defect

Correct Answer:- Option-D

Question9:-All are true about liposuction except

A:-It's a procedure of blind removal of subcutaneous fat

B:-Cosmetic body sculpturing can be done by this procedure

C:-Subfascial tissues can be suctioned only by this procedure

D:-Lipoma with small fibrous septae can be remove by this procedure

Correct Answer:- Option-C

Question10:-All are true about laser except

A:-Argon laser can treat port wine stain

B:-Q-witch laser used for tattoos removal

C:-Hypertrophic scar can be treated with laser

D:-Hair removal can not be done by laser

Correct Answer:- Option-D

Question11:-All are the methods of non surgical measures of scar management except

A:-Massage

B:-Silicon gel sheet

C:-Pressure garments

D:-Z-plasty

Correct Answer:- Option-D

Question12:-Find out wrong statements

A:-Hypertrophic scars is raised above the level of surrounding skin

B:-Keloid scar is raised above the level of surrounding skin

C:-Hypertrophic scar never encroach normal skin

D:-Keloid regresses spontaneously

Correct Answer:- Option-D

Question13:-All of the following listed surgeries can be carried by Endoscopy except

A:-Brow lift

B:-Face lift

C:-Breast Augmentation

D:-Breast Reconstruction

Correct Answer:- Option-D

Question14:-All drugs listed are local anesthetic agents except

A:-Cocaine

B:-Bupivacaine

C:-Ropivacaine

D:-Succinylcholine

Correct Answer:- Option-D

Question15:-All are the techniques of Genetic analysis except

A:-Elisa

B:-Chromosome analysis

C:-PCR (polymerase chain reaction)

D:-Southern and Northern Blots

Correct Answer:- Option-A

Question16:-Superficial musculoaponeurotic system (SMAS) is an extension of which of the following layers of the head and neck region?

A:-Superficial layer of deep temporal fascia

B:-Deep layer of deep temporal fascia

C:-Temporoparietal fascia

D:-Parotido-masseteric fascia

Correct Answer:- Option-C

Question17:-Which of the following is not a feature of leprosy of the face?

A:-Dorsal jump

B:-Hypopigmented patches

C:-Madarosis

D:-Skin Nodules

Correct Answer:- Option-A

Question18:-Keystone area is described as which of the following?

A:-Region where upper lateral cartilage abuts lower lateral cartilage

B:-Region where septum abuts lower lateral cartilage

C:-Region where upper lateral cartilage abuts septum

D:-Region where nasal bone abuts upper lateral cartilage

Correct Answer:- Option-D

Question19:-Two years ago, during excision of an acoustic neuroma a patient sustained complete injury of facial nerve. Which of the following is not a feasible treatment option for this patient?

A:-Cross facial nerve grafting

B:-Ipsilateral facial nerve grafting

C:-Static reconstruction

D:-Free functional muscle transfer using masseter neurotization

Correct Answer:- Option-B

Question20:-Antia-Buch procedure is used for which of the following?

A:-Ear lobule defect

B:-Large middle third ear defect

C:-Total ear pinna avulsion

D:-Helical rim defect

Correct Answer:- Option-D

Question21:-Klippel Trenaunay syndrome is not associated with which of the following?

A:-Arterial malformation

B:-Capillary malformation

C:-Venous malformation

D:-Limb overgrowth

Correct Answer:- Option-A

Question22:-Unique feature of ameloblastoma is

A:-Well defined unilocular apical radiolucency

- B:-Radiolucent lesion at the crown of third molar
- C:-Radio-opaque lesion at the crown of third molar
- D:-Radiolucent multiloculated lesion

Correct Answer:- Option-D

Question23:-For bony reconstruction of mandible after oncological resection, the lateral border of the scapula is harvested based on blood vessel?

- A:-Angular branch of Thoracodorsal artery
- B:-Serratus anterior branch of Thoracodorsal artery
- C:-Dorsal scapular artery
- D:-Circumflex scapular artery

Correct Answer:- Option-D

Question24:-As per the Santanaria and Cordiero classification of maxillectomy defect, a defect involving the removal of all six walls of the maxilla along with orbital exenteration is classified as

- A:-Type 4
- B:-Type 3b
- C:-Type 3a
- D:-Type 2

Correct Answer:- Option-B

Question25:-Isolated limb perfusion is a treatment modality to deliver chemotherapeutic agents to the limb. It is used in which of the following skin conditions:

- A:-Melanoma
- B:-Squamous cell carcinoma
- C:-Basal cell carcinoma
- D:-Giant congenital melanocytic nevus

Correct Answer:- Option-A

Question26:-Which of the following muscles of facial animation is innervated on its superficial aspect by the facial nerve?

- A:-Buccinator
- B:-Orbicularis oris
- C:-Orbicularis oculi
- D:-Risorius

Correct Answer:- Option-A

Question27:-What is the recommended age for cleft palate repair?

- A:-3-6 months
- B:-9-12 months
- C:-3-4 years

D:-6-9 years

Correct Answer:- Option-B

Question28:-Coronal closure pattern of Velopharynx is formed by which predominant moving component

A:-Lateral pharyngeal wall

B:-Posterior pharyngeal wall

C:-Passavant's Ridge

D:-Velum

Correct Answer:- Option-D

Question29:-What is the recommended age for alveolar bone grafting?

A:-3-6 months

B:-9-12 months

C:-3-4 years

D:-6-9 years

Correct Answer:- Option-D

Question30:-Which of the following statements describe the normal occlusion?

A:-Distal buccal cusp of maxillary first molar occludes in the buccal groove of the mandibular molar

B:-Mesio buccal cusp of maxillary first molar occludes in the buccal groove of the mandibular molar

C:-Mesio buccal cusp of maxillary second molar occludes in the buccal groove of the mandibular molar

D:-Mesio buccal cusp of maxillary third molar occludes in the buccal groove of the mandibular molar

Correct Answer:- Option-B

Question31:-Which of the following Tessier cleft extends through the nasolacrimal duct?

A:-Cleft number 2

B:-Cleft number 3

C:-Cleft number 4

D:-Cleft number 5

Correct Answer:- Option-B

Question32:-A patient suffered lateral impact to his nose with displacement of nasal bone on side of impact and green stick fracture of contralateral nasal bone. This type of injury is classified into following type.

A:-Plane I

B:-Plane II

C:-Plane III

D:-Plane IV

Correct Answer:- Option-B

Question33:-Trigonocephaly results from the premature fusion of which cranial suture?

A:-Sagittal

B:-Lambdoid

C:-Coronal

D:-Metopic

Correct Answer:- Option-D

Question34:-All of the following originate from the first pharyngeal arch except:

A:-Tensor veli palatini

B:-Lateral pterygoid

C:-Mylohyoid

D:-Posterior belly of the digastric

Correct Answer:- Option-D

Question35:-Which of the following structure is not formed by the medial nasal prominence?

A:-Prolabium

B:-Premaxilla

C:-Secondary palate

D:-Nasal septum

Correct Answer:- Option-C

Question36:-A 68-year old woman presents for facial rejuvenation with complaints of jowls and neck laxity. She is scheduled for a traditional facelift under general anesthesia.

Review the following statements and indicate which of the options are TRUE?

- i. The posterior auricular dissection is commonly initiated using a scalpel all the way through the procedure.
- ii. The facelift plane is located deep to the SMAS to allow safe identification of the facial nerve branches.
- iii. Skin flap dissection should stay in the subcutaneous plane in the postauricular area to protect the great auricular nerve.
- iv. The "mesotemporalis" is a bridge of tissues containing superficial temporal vessels and nerve branches.

A:-Only i and ii

B:-Only ii and iii

C:-Only iii and iv

D:-Only iv and i

Correct Answer:- Option-C

Question37:-With regards to the use of flaps for posterior trunk reconstruction,

review the following statements and indicate which of the options are TRUE.

- i. The trapezius muscle flap receives its dominant blood supply from the thoracodorsal artery.
- ii. The dorsal scapular artery perforator (DSAP) is a basis for the trapezial perforator flap.
- iii. The latissimus dorsi (LD) muscle can be used as a reverse flow flap based on intercostal vessels.
- iv. The parascapular flap is primarily supplied by thoracodorsal artery perforators.

A:-Only i and ii

B:-Only ii and iii

C:-Only iii and iv

D:-Only iv and i

Correct Answer:- Option-B

Question38:-A 65 year-old- female with a history of degenerative lumbar scoliosis underwent instrumented lumbar arthrodesis from L2 to L5. Two weeks postoperatively, she presents with a dehiscent midline lumbar wound, exposing spinal hardware and with serous discharge. The defect measures approximately 12 × 5 cm, with undermined edges and visible instrumentation. The reconstructive plan includes the use of a paraspinal muscle flap.

Which of the following statements about the paraspinal muscle flap is CORRECT in this context?

A:-It is a type II Mathes and Nahai muscle flap with dominant pedicles from the thoracodorsal artery

B:-It provides only superficial coverage and is unsuitable for obliterating deep dead space

C:-It is commonly raised as a bipedicle flap based on segmental perforators from the intercostal arteries

D:-It requires sacrifice of the latissimus dorsi muscle during elevation

Correct Answer:- Option-C

Question39:-A 27 year old woman has experienced progressive swelling in her right lower limb for 8 months, causing heaviness, discomfort and difficulty wearing shoes. Clinical examination shows non-pitting edema from foot to mid-calf, with a positive stemmer's sign. Ultrasound excluded venous thrombosis and she is referred for lymphoscintigraphy.

Which of the following statements about lymphoscintigraphy (LS) for lymphedema assessment is CORRECT?

A:-LS is considered outdated and is rarely used in modern lymphedema diagnosis

B:-LS uses a fluorescent dye injected intravenously to visualize lymph flow

C:-LS has high spatial resolution and can precisely delineate lymphatic channels for surgical planning

D:-LS provides both qualitative and quantitative assessment of lymphatic function

Correct Answer:- Option-D

Question40:-Which of the following statements about Magnetic Resonance Lymphangiography (MRL) in lymphedema imaging is FALSE?

A:-MRL allows for real-time imaging of lymphatic vessel contractility and flow direction

B:-MRL can visualize both lymphatic vessels and venous structures regardless of their depth

C:-MRL provides high-resolution images that distinguish between fluid and fat components in lymphedematous limbs

D:-MRL can be used to plan lymphatic surgery by identifying fluid-predominant and fibrotic regions

Correct Answer:- Option-A

Question41:-A 48 year old woman presents to you with primary concerns of perioral wrinkling, a dull skin tone and fine rhytids around the eyes. Upon examination, she has fair skin, moderate elastosis and early signs of volume loss. You are considering a deep chemical peel as part of her therapy.

Which of the following statements is CORRECT regarding preoperative planning for a deep chemical peel?

A:-Deep chemical peel procedure has minimal downtime and recovery is usually complete in 3-4 days

B:-Skin preparation with tretinoin and hydroquinone is optional and generally discouraged in fair-skinned patients

C:-Patients must be psychologically prepared for a visible healing phase, including erythema and peeling lasting upto 2 weeks

D:-Croton oil peels produce immediate results with minimal dermal remodeling or long-term structural change

Correct Answer:- Option-C

Question42:-Which of the following is a primary goal of preoperative skin preparation before a deep chemical peel?

A:-To reduce skin hydration and enhance desquamation

B:-To suppress melanocytes and improve epidermal and dermal condition

C:-To promote rapid tanning and uniform pigmentation

D:-To eliminate the need for any post-peel aftercare

Correct Answer:- Option-B

Question43:-Which of the following is the MOST common early complication following facelift surgery?

A:-Facial nerve paralysis

B:-Skin flap necrosis

C:-Hematoma

D:-Sialocele

Correct Answer:- Option-C

Question44:-Which of the following statements about contraindications to

abdominoplasty is FALSE?

A:-Active smoking and nicotine use are considered absolute contraindications

B:-Prior upper non-midline abdominal scars may compromise blood supply and pose a relative contraindication

C:-A frailty index may help assess surgical risk in elderly patients, as age alone is not an absolute contraindication

D:-Body dysmorphic disorder is a relative contraindication and may be managed with counseling

Correct Answer:- Option-D

Question45:-A 52 year old woman underwent elective abdominoplasty for abdominal contouring. On postoperative day 3, she complains of swelling and pain in her left calf. On examination, her leg is warm and tender with a positive Homan's sign. Vital signs are stable, but D-dimer is elevated.

Which of the following is TRUE regarding venous thromboembolism (VTE) in the context of abdominoplasty?

A:-VTE is rare after abdominoplasty and no routine prophylaxis is generally required

B:-The use of compression garments is contraindicated postoperatively due to risk of vascular occlusion

C:-Subcutaneous heparin prophylaxis should be started only after signs of VTE develop

D:-A history of prior VTE or inherited thrombophilia warrants extended chemoprophylaxis up to 4 weeks

Correct Answer:- Option-D

Question46:-Which of the following statements is TRUE regarding component dorsal hump reduction in open rhinoplasty?

A:-Composite dorsal hump reduction using a single osteotome is preferred for better aesthetic outcomes

B:-Equal resection of the septum and upper lateral cartilages produces a straight and smooth dorsum

C:-Preservation of upper lateral cartilages during septal reduction helps maintain internal valve function

D:-Use of spreader grafts is mandatory in all primary rhinoplasties following dorsal reduction

Correct Answer:- Option-C

Question47:-A 29-year-old woman presents for primary rhinoplasty. Her main concerns are poor nasal tip projection and mild asymmetry over the tip. On examination, she has moderate skin thickness and adequate lower lateral cartilage strength.

Which of the following statements regarding nasal tip grafting techniques in primary rhinoplasty is TRUE?

A:-Onlay grafts are placed over the alar domes and can camouflage tip irregularities

B:-Anatomic tip grafts are routinely used in all primary rhinoplasty cases to define the nasal tip

C:-Shield grafts are designed primarily to lengthen the nose without affecting tip projection

D:-Tip grafts are preferred over suturing techniques in patients with thin nasal skin

Correct Answer:- Option-A

Question48:-Which of the following statements regarding wetting solutions in liposuction is FALSE?

A:-Tumescent infiltration may involve up to 3 mL of solution per 1 mL of expected aspirate

B:-Lidocaine in wetting solution has a peak tissue level effect beyond 8 hours postoperatively

C:-The tumescent technique provides hydrodissection, hemostasis and reduced blood loss

D:-The dry technique remains a preferred method for small-volume liposuction due to simplicity

Correct Answer:- Option-D

Question49:-Which of the following is the MOST critical primary surgical endpoint for suction-assisted or power-assisted liposuction (SAL/PAL)?

A:-Presence of blood in the aspirate

B:-Loss of tissue resistance during cannula passage

C:-Final contour and symmetrical pinch test in treatment site

D:-Audible change in suction cannula sound indicating complete fat removal

Correct Answer:- Option-C

Question50:-A 58-year-old woman with Fitzpatrick Type IV skin and moderate photoaging (Glogau II) present with fine lines, brown spots and facial redness. She requests facial rejuvenation with minimal downtime and quick recovery. Which of the following laser or light-based interventions would be the MOST appropriate initial treatment option for this patient?

A:-Full-field ablative CO_2 laser resurfacing

B:-Fractional non-ablative laser treatment

C:-Deep chemical peel

D:-Flashlamp- pumped pulsed Dye Laser

Correct Answer:- Option-B

Question51:-Which of the following statements is TRUE regarding the role of biomechanics in wound formation in diabetic foot patients?

A:-Ground reaction forces during ambulation are insignificant in plantar wound development

B:-Footwear plays a minimal role in either masking or contributing to foot deformities

C:-Deformity and altered food mechanics increase localized pressure, contributing to wound chronicity

D:-Most deformities are clinically obvious and rarely require imaging for detection

Correct Answer:- Option-C

Question52:-A 23-year-old male sustains an open tibial fracture with extensive soft-tissue loss after a road traffic accident. Following skeletal stabilization and serial debridement, he is planned for free Latissimus Dorsi flap coverage of the distal third of the leg.

Which of the following is the MOST important factor when selecting a recipient vessel for microvascular anastomosis in this patient?

A:-Distance of the vessel from the wound edge

B:-Diameter match between flap and recipient vessels

C:-Use of fluoroscopic guidance for all recipient vessels

D:-Visual assessment of vessel pliability and quality of pulsatile flow

Correct Answer:- Option-D

Question53:-Which of the following statements about abdominal scars and free microvascular Transverse Rectus Abdominis (TRAM) flap planning for autologous breast reconstruction is TRUE?

A:-A paramedian abdominal scar always precludes TRAM flap elevation

B:-Midline vertical scars completely disrupt periumbilical perforators and rule out flap use

C:-Any prior abdominal surgery disqualifies patients from autologous reconstruction

D:-A Pfannenstiel incision usually does not interface with key perforators for flap harvest

Correct Answer:- Option-D

Question54:-Which of the following statements regarding pre-pectoral placement of prosthetic breast implants for breast reconstruction is True?

A:-A well-perfused mastectomy flap is essential for successful pre-pectoral implant placement.

B:-Pre-pectoral placement results in significantly higher rates of surgical-site infection compared to sub-pectoral placement.

C:-Pre-pectoral technique increases animation deformity compared to sub-pectoral placement.

D:-Pre-pectoral placement eliminates the need for surgical mesh or acellular dermal matrix (ADM).

Correct Answer:- Option-A

Question55:-Which of the following reconstructive techniques is MOST appropriately matched to its pressure sore location?

A:-Gluteus maximus musculocutaneous flap : Sacral sore in an ambulatory patient

B:-Posterior thigh fasciocutaneous flap : Ischial pressure sore

C:-Gracilis muscle flap : Trochanteric pressure sore

D:-V-Y advancement flap : Heel pressure sore with poor local tissue availability

Correct Answer:- Option-B

Question56:-The labioscrotal swellings in a male embryo develop into which of the following?

A:-Labia majora

B:-Scrotum

C:-Penis

D:-Glans penis

Correct Answer:- Option-B

Question57:-Hypospadias results from :

A:-Failure of testicular descent

B:-Incomplete fusion of the urogenital folds

C:-Persistence of the mullerian ducts

D:-Fusion of the labioscrotal swellings

Correct Answer:- Option-B

Question58:-In female embryology, the paramesonephric (Mullerian) ducts develop into :

A:-Urethra and vagina

B:-Fallopian tubes, uterus and upper vagina

C:-Ovaries and uterine ligaments

D:-Labia majora and minora

Correct Answer:- Option-B

Question59:-A typical surgical goal of male-to-female (MTF) gender affirmation surgery is :

A:-Construction of a neophallus

B:-Vaginectomy

C:-Creation of a neovagina using penile or colon tissue

D:-Urethral lengthening

Correct Answer:- Option-C

Question60:-In transgender health care, which of the following is a WPATH recommendation before undergoing genital surgery?

A:-No hormonal therapy is needed

B:-One year of continuous living in the gender role congruent with identity

C:-Parental consent for all adults

D:-Surgery must be done before any hormonal therapy

Correct Answer:- Option-B

Question61:-At what week of gestation do limb buds first appear in the human embryo?

A:-2nd week

B:-4th week

C:-6th week

D:-8th week

Correct Answer:- Option-B

Question62:-Which signaling center is essential for anteroposterior axis formation of the limb?

A:-Apical ectodermal ridge (AER)

B:-Zone of polarizing activity (ZPA)

C:-Wnt signaling

D:-Sonic hedgehog pathway

Correct Answer:- Option-B

Question63:-The preaxial border of the upper limb corresponds to which anatomical structure?

A:-Radius

B:-Ulna

C:-Scapula

D:-Humerus

Correct Answer:- Option-A

Question64:-The carpal tunnel contains all except :

A:-Median nerve

B:-Flexor pollicis longus

C:-Flexor carpi ulnaris

D:-Flexor digitorum profundus

Correct Answer:- Option-C

Question65:-The thenar muscles are primarily innervated by :

A:-Ulnar nerve

B:-Median nerve

C:-Radial nerve

D:-Axillary nerve

Correct Answer:- Option-B

Question66:-Which of the following injuries results in 'claw hand'?

A:-Median nerve injury

B:-Radial nerve injury

C:-Ulnar nerve injury

D:-Axillary nerve injury

Correct Answer:- Option-C

Question67:-Which suture size is commonly used for microvascular anastomosis?

A:-3-0

B:-5-0

C:-7-0

D:-10-0

Correct Answer:- Option-D

Question68:-An absolute contraindication to free flap transfer is :

A:-Diabetes mellitus

B:-Poor and damaged recipient vein

C:-Smoking

D:-Prior surgeries

Correct Answer:- Option-B

Question69:-Erb's palsy results from injury to which part of the brachial plexus?

A:-C5-C6

B:-C6-C7

C:-C7-T1

D:-C8-T1

Correct Answer:- Option-A

Question70:-Brachial plexus roots emerge between which muscles?

A:-Scalenus anterior and medius

B:-Trapezius and deltoid

C:-Sternocleidomastoid and omohyoid

D:-Subclavius and pectoralis minor

Correct Answer:- Option-A

Question71:-Nerve transfer in brachial plexus repair often uses which donor nerve?

A:-Spinal accessory nerve

B:-Phrenic nerve

C:-Intercostal nerves

D:-All of the above

Correct Answer:- Option-D

Question72:-A low-flow vascular malformation includes all except :

A:-Venous malformation

B:-Lymphatic malformation

C:-Capillary malformation

D:-Arteriovenous malformation

Correct Answer:- Option-D

Question73:-The most effective imaging modality for vascular malformation is :

A:-X-ray

B:-Ultrasound

C:-MRI with contrast

D:-CT scan

Correct Answer:- Option-C

Question74:-Which gene mutation is commonly associated with capillary malformations?

A:-RASA1

B:-PTEN

C:-KRAS

D:-SMAD4

Correct Answer:- Option-A

Question75:-Primary lymphedema of the upper limb is most commonly due to :

A:-Infection

B:-Radiation

C:-Congenital hypoplasia

D:-Surgery

Correct Answer:- Option-C

Question76:-Which artery is most commonly injured in supracondylar fractures of the humerus?

A:-Ulnar

B:-Brachial

C:-Radial

D:-Axillary

Correct Answer:- Option-B

Question77:-The lateral arm flap is based on which artery?

A:-Radial recurrent artery

B:-Posterior radial collateral artery

C:-Ulnar artery

D:-Brachial artery

Correct Answer:- Option-B

Question78:-The most commonly injured nerve in humeral shaft fractures is :

A:-Median nerve

B:-Ulnar nerve

C:-Radial nerve

D:-Axillary nerve

Correct Answer:- Option-C

Question79:-Which reconstructive option is best for exposed tendons in the dorsum of hand?

A:-Skin graft

B:-Fasciocutaneous flap

C:-Muscle flap

D:-Free fibula flap

Correct Answer:- Option-B

Question80:-Which of the following is a common complication of untreated compartment syndrome?

A:-Aneurysm

B:-Venous thrombosis

C:-Volkmann's contracture

D:-Cellulitis

Correct Answer:- Option-C

Question81:-Regarding the pathophysiology of burn shock, which of the following is the key mediator of increases in microvascular permeability following thermal injury in the early post-burn phase?

A:-Prostaglandin E2

B:-Histamine

C:-Tumor Necrosis Factor - alpha (TNF- α)

D:-Interleukin - 6 (IL-6)

Correct Answer:- Option-B

Question82:-In planning nutritional support for an adult patient with a 40% Total Body Surface Area (TBSA) thermal burn, which formula predicts 24-hour energy expenditure with remarkable accuracy after the initial resuscitation phase?

A:-Harris - Benedict Equation multiplied by a stress factor of 2.5

B:-Curreri Formula

C:-Toronto Formula

D:-Indirect calorimetry

Correct Answer:- Option-D

Question83:-A severely burned patient (60% TBSA) develops invasive *Aspergillus fumigatus* burn wound infection confirmed by biopsy and culture. The patient is hemodynamically unstable. Which systemic antifungal agent is generally considered first-line therapy for invasive aspergillosis in this critical setting?

A:-Fluconazole

B:-Amphotericin B

C:-Voriconazole

D:-Caspofungin

Correct Answer:- Option-C

Question84:-A 35-year old man sustains a high-voltage electrical injury of the right upper extremity with an entrance wound over the volar aspect of the hand. If increased compartment pressures are not adequately relieved in time, which of the following muscles is most likely to develop an ischemic contracture?

A:-Extensor carpi radialis brevis

B:-Flexor carpi radialis

C:-Flexor digitorum profundus

D:-Palmaris longus

Correct Answer:- Option-C

Question85:-A 20-year old man is undergoing contracture release of the oral commissure when the nasal endotracheal tube is accidentally disconnected from the breathing circuit. The surgeon witnesses an unexpected flash in the operative field. The surgeon immediately stops the procedure and alerts the anaesthesiologist. Smoke and a burning odour coming out of the patient's airway are noted. Which of the following is the most appropriate next step in management?

A:-Decrease the flow of airway gases by half

B:-Immediately remove the endotracheal tube

C:-Perform emergency bronchoscopy

D:-Reconnect the endotracheal tube

Correct Answer:- Option-B

Question86:-A 70-kg man is evaluated in burn unit 1 hour after sustaining deep partial - thickness burns to 50% of his total body surface area when attempting to light a firecracker. Paramedics administered 2 L of intravenous fluid during transport to burn unit. Using the Parkland formula, which of the following is the starting rate for fluid resuscitation in this patient?

A:-375 mL/hr

B:-437 mL/hr

C:-583 mL/hr

D:-714 mL/hr

Correct Answer:- Option-D

Question87:-A 70-kg, 35-year-old man undergoes excision and skin grafting after sustaining total body surface area burns to over 40% of his body. Using the Curreri formula, which of the following is this patient's total daily caloric need?

A:-2250 kCal/day

B:-3350 kCal/day

C:-4450 kCal/day

D:-5550 kCal/day

Correct Answer:- Option-B

Question88:-Which of the following is the Pain assessment tool of choice in Infants and Pre-verbal children?

A:-The Observer Pain Scale

B:-Visual Analog Scale

C:-Faces Pain Rating Scale

D:-Paediatric Pain Questionnaire

Correct Answer:- Option-A

Question89:-A 35-year old man is admitted to the burn unit after sustaining superficial partial thickness burns involving 25% of the total body surface area. Medical history includes an allergy to sulfonamide. The burns area cleaned, and silver nitrate - soaked dressings are applied. Which of the following is most likely in this patient?

A:-Hyponatremia

B:-Metabolic acidosis

C:-Thrombocytopenia

D:-Painful application

Correct Answer:- Option-A

Question90:-A 29-year-old man sustained extensive chemical burns to 30% of the total body surface area. After 12 weeks of healing, he came back for scar management. Examination shows thick hypertrophic scarring of the upper extremities and anterior torso. Which of the following is the most appropriate management?

A:-Injection of a corticosteroid

B:-Scar band revision

C:-Topical application of vitamin E

D:-Use of pressure garments

Correct Answer:- Option-D

Question91:-A 37-year-old male worker sustained burn injuries to the right hand when he fell and inadvertently immersed his hand in tar that had a temperature 260.2°C. Which of the following is the most appropriate initial management?

A:-Leaving the tar on and splinting

B:-Removing the tar with butter and splinting

C:-Excision of the tar, debridement of the burned tissue, skin grafting and splinting

D:-Escharotomy followed by splinting

Correct Answer:- Option-B

Question92:-A 58-year-old male, weighing 70 kg, is admitted to the burn intensive care unit 4 hours after sustaining 65% Total Body Surface Area (TBSA) deep partial and full-thickness flame burns in an enclosed - space house fire. He was intubated at the scene due to hoarseness and carbonaceous sputum. Initial resuscitation was initiated with Lactated Ringer's solution at 4 mL/kg/% TBSA. Over the next 48 hours, despite adherence to lung-protective ventilation (VT 6mL/kg IBW, PEEP 10 cm H₂O, FiO₂ 0.8), his PaO₂/FiO₂ ratio deteriorates to 85 mmHg, with new bilateral fluffy infiltrates on chest radiography, consistent with severe ARDS by Berlin criteria. His central venous pressure is 12 mmHg, and urine output has been maintained at 0.6mL/kg/hr for the past 12 hours. Which of the following interventions is the most appropriate next step in managing his respiratory failure.

A:-Initiate High-Frequency Oscillatory Ventilation (HFOV)

B:-Administer nebulized heparin 5000 units alternating with N-acetylcysteine 20% 3 mL every 4 hours.

C:-Increase PEEP to 18-20 cm H₂O and perform a recruitment maneuver, while maintaining VT at 6 mL/kg IBW.

D:-Institute prone positioning for at least 16 hours per day.

Correct Answer:- Option-D

Question93:-A 50-year-old day male with 55% TBSA flame burns is in the burn ICU, 21 days post-injury. He has been on mechanical ventilation for ARDS secondary to initial inhalation injury and has undergone multiple debridements and grafting procedures. He develops VAP and cultures reveal Multi Drug Resistant (MDR) Acinetobacter baumannii, sensitive only to colistin and tigecycline. Despite appropriate doses of colistin, his condition deteriorates. He is now in septic shock with a MAP of 50 mmHg despite norepinephrine at 0.8 mcg/kg/min, vasopressin at 0.04 U/min, and adequate fluid resuscitation (CVP 14 mmHg, PAOP 16 mmHg, ScvO₂ 65%). He is severely hypermetabolic, receiving high-protein, high-carbohydrate enteral nutrition. His lactate is 5.2 mmol/L. Which of the following interventions is the most appropriate next step to consider for his refractory shock?

A:-Initiate empiric antifungal therapy with caspofungin

B:-Administer hydrocortisone 50 mg IV every 6 hours

C:-Add epinephrine infusion, titrating to a MAP > 65 mmHg

D:-Administer a loading dose of methylene blue (1-2 mg/kg) over 60 minutes

Correct Answer:- Option-C

Question94:-In a mass casualty burn disaster scenario with limited resources, which patient category, would typically be assigned the LOWEST priority for immediate evacuation to a specialized burn center, assuming other injuries are not life-threatening?

A:-Adults with >40% TBSA partial-thickness burns and signs of inhalation injury.

B:-Children with 15% TBSA full-thickness burns.

C:-Adults with < 10% TBSA partial-thickness burns without facial or perineal involvement

D:-Adult with > 80% TBSA full-thickness burns with associated severe trauma.

Correct Answer:- Option-D

Question95:-A 35-year-old electrician sustains a 15000V AC electrical injury with an entry point on the right palm and an exit point on the left heel. Initial resuscitation is adequate. On day 3 post-injury, he develops progressive oliguria, a serum Creatinine Kinase (CK) of 150,000 IU/L, and dark urine. Despite aggressive intravenous fluid therapy (targeting urine output > 100 mL/hr) and urine alkalization, his renal function deteriorates. Which of the following intervention, beyond continued aggressive fluid resuscitation, is most specifically indicated and potentially life-saving in this immediate scenario?

A:-Initiation of prophylactic broad-spectrum antibiotics.

B:-Emergent fasciotomy of all four extremities

C:-Administration of N-acetylcysteine

D:-Urgent dialysis with consideration for Continuous Renal Replacement Therapy (CRRT)

Correct Answer:- Option-D

Question96:-Which of the following best explains the 'steal phenomenon' in free flap reconstruction?

A:-Retrograde flow into the donor vessel post-anastomosis

B:-Flap perfusion reducing flow to adjacent native tissues

C:-Turbulent flow within the anastomosis causing ischemia

D:-Shunting of arterial blood through a low-resistance flap circuit

Correct Answer:- Option-D

Question97:-A 35-year-old male presents 10 hours after a complete guillotine amputation of his dominant right thumb at the metacarpophalangeal (MP) joint. The amputated part has been kept cool. He is heavy smoker with a 20 pack-year history. Intraoperatively, after bony fixation and extensor tendon repair, arterial anastomosis is performed, but there is no immediate reflow despite a technically sound anastomosis and absence of kinking. Which of the following is the MOST appropriate next step in management?

A:-Immediate systemic heparinization and observation for 30 minutes, followed by exploration if no reflow

B:-Application of topical papaverine to the anastomosis site and increasing the room temperature.

C:-Administration of intravenous thrombolytic therapy (e.g., alteplase) directly into the repaired artery.

D:-Vein graft interposition, assuming intimal damage, followed by exploration of the distal arterial tree for micro-thrombi.

Correct Answer:- Option-D

Question98:-A 30-year-old patient requires a sensate free Antero Lateral Thigh (ALT) flap for reconstruction of a large soft tissue defect on the volar aspect of the dominant forearm following a severe crush injury with segmental nerve loss of both the median and ulnar nerves (greater than 8 cm gap in each) The Lateral Femoral Cutaneous Nerve (LFCN) is identified for coaptation. Which of the following recipient nerve strategies offers the BEST potential for meaningful protective

sensation and functional recovery in the reconstructed area?

A:-End-to-end coaptation of the LFCN to the distal stump of the superficial radial sensory nerve, which was uninjured.

B:-End-to-side (ETS) coaptation of the LFCN to the side of the intact radial sensory nerve trunk more proximally in the forearm.

C:-Interpositional nerve grafts from the proximal stumps of the median and ulnar nerves to the LFCN.

D:-Direct coaptation of the LFCN to the proximal stump of the palmar cutaneous branch of the median nerve, if identifiable and healthy.

Correct Answer:- Option-A

Question99:-A 48-year-old patient undergoes a free Transverse Rectus Abdominis Myocutaneous (TRAM) flap for breast reconstruction. On postoperative day 2, the flap becomes progressively swollen, tense, and develops a violaceous hue with brisk, dark capillary refill on pinprick. An urgent surgical exploration is performed. The arterial anastomosis is patent with a strong Doppler signal. The venous anastomosis appears technically sound with no evidence of kinking, tension, or external compression, and a discernible venous Doppler signal is present, though perhaps less robust than baseline. No hematoma is found. Despite these findings, the flap congestion persists. Which of the following is the MOST appropriate next step in management?

A:-Administer a high-dose intravenous corticosteroid bolus and apply topical nitroglycerin paste to the flap.

B:-Create a controlled phlebotomy site on the flap periphery and initiate systemic anticoagulation with unfractionated heparin aiming for a PTI 1.5 - 2x normal.

C:-Perform a second, more distal venous anastomosis (supercharging / super-drainage) to an available recipient vein, if technically feasible.

D:-Initiate broad-spectrum antibiotics and obtain urgent tissue cultures from the flap, suspecting an aggressive early infection leading to microcirculatory compromise.

Correct Answer:- Option-C

Question100:-A 70-year-old patient with a long history of diffuse systemic sclerosis (scleroderma) and severe Raynaud's phenomenon requires reconstruction of a non-healing ulcer with exposed tibia (8 cm x 5 cm) following minor trauma. Previous attempts at skin grafting have failed. Her peripheral pulses are diminished but Dopplable. She has digital pitted scarring and early acro-osteolysis. Which of the following factors poses the GREATEST challenge to successful free tissue transfer in this patient and what is the MOST critical perioperative adjustment to mitigate this?

A:-Challenge : Impaired wound healing due to chronic corticosteroid use;
Mitigation: Meticulous atraumatic tissue handling and prolonged antibiotic coverage

B:-Challenge : Systemic immuno suppression inherent to scleroderma;
Mitigation: Strict aseptic technique and avoidance of allogeneic blood products.

C:-Challenge : Microvascular disease and vasospastic tendency of recipient vessels : Mitigation : Recipient vessel selection as proximal as possible, avoidance of vasoconstrictive agents (e.g., epinephrine in local anesthetic), and maintenance

of aggressive perioperative vasodilation

D:-Challenge : Increased risk of donor site morbidity due to poor skin quality :

Mitigation : Selection of a muscle - only flap with skin grafting at the donor site and meticulous donor site closure.

Correct Answer:- Option-C