

## FINAL ANSWER KEY

Question 107/2024/OL

Paper Code:

Category 496/2023

Code:

Exam: Dental Mechanic Gr.II

Date of Test 04-09-2024

Department Health Services

Question1:-Recommended disinfection solution for impression compound is

- A:-2% acidic glutaraldehyde solution
- B:-5% acidic glutaraldehyde solution
- C:-2% alkaline glutaraldehyde solution
- D:-5% alkaline glutaraldehyde solution

Correct Answer:- Option-C

Question2:-Disinfection of stone cast can be achieved by

- A:-Immersion of cast in disinfection solution
- B:-Incorporation of disinfectant in dental stone
- C:-Mixing the disinfectant in mixing water
- D:-Disinfection of cast can be achieved by all the above methods

Correct Answer:- Option-D

Question3:-Which one of the following can be used to reduce the dimensional change of agar impressions

- A:-2% Potassium sulfate solution
- B:-3% Calcium nitrate solution
- C:-2% Barium chlorate solution
- D:-3% Sodium fluoride solution

Correct Answer:- Option-A

Question4:-Which one of the following is a laboratory wax

- A:-Pressure indicating paste
- B:-Beading wax
- C:-Bite registration wax
- D:-Disclosing wax

Correct Answer:- Option-B

Question5:-Boxing helps to

- A:-Record width and depth of sulcus in an impression
- B:-Preserve width and depth of sulcus in the final cast

C:-Helps breakage of cast in a dental flask

D:-Facilitates separation of cast and impression

Correct Answer:- Option-B

Question6:-With intermittent stirring, agar hydrocolloid duplicating material can be kept in liquid form for \_\_\_\_\_ weeks

A:-7-8

B:-5-6

C:-3-4

D:-1-2

Correct Answer:- Option-D

Question7:-Wax spacer should be removed from the periphery of the special tray by

A:-1-2 mm

B:-2-3 mm

C:-3-4 mm

D:-4-5 mm

Correct Answer:- Option-B

Question8:-How much land area must be maintained in the cast after the cast is shaped

A:-4-5 mm

B:-8-9 mm

C:-12-13 mm

D:-15-16 mm

Correct Answer:- Option-A

Question9:-Occlusal rims are used

A:-As provisional substitutes for teeth in complete denture

B:-To record the jaw relations

C:-To record the neutral zone

D:-All the above are correct

Correct Answer:- Option-D

Question10:-\_\_\_\_\_ articulator superimposed upon a dry skull to suggest the theoretical merits of using a facebow for mounting the casts in a related hinge axis position.

A:-Non adjustable

B:-Slab type

C:-Arcon

D:-Non-Arcon

Correct Answer:- Option-C

Question11:-Non anatomic teeth can be used in a balanced occlusion concept by the use of

A:-Balancing side contact

B:-Working side contact

C:-Ramps

D:-Unilateral disocclusion

Correct Answer:- Option-C

Question12:-Labial surface of the maxillary central incisors are usually \_\_\_\_\_ mm in front of the incisive papilla when residual alveolus is intact and patient has a normal facial skeleton

A:-4-6

B:-8-10

C:-12-14

D:-17-19

Correct Answer:- Option-B

Question13:-Neck (cervical area) of maxillary lateral in relation to maxillary central incisor should be

A:-Slightly depressed

B:-Slightly elevated

C:-Neither depressed or elevated (same level)

D:-There is no such guideline

Correct Answer:- Option-A

Question14:-Boiling point of methyl methacrylate monomer is

A:-70.8 degree Celsius

B:-80.8 degree Celsius

C:-90.8 degree Celsius

D:-100.8 degree Celsius

Correct Answer:- Option-D

Question15:-Greyish - black corundum prepared in a fine grain form

A:-Emery

B:-Pumice

C:-Rouge

D:-Natural diamond

Correct Answer:- Option-A

Question16:-The Kennedy class IV partially edentulous situation is described as follows:

A:-Bilateral edentulous areas located posterior to the remaining natural tooth

B:-Unilateral edentulous areas with natural teeth remaining both anterior to the remaining natural tooth and posterior to it

C:-Unilateral edentulous areas located posterior to remaining natural teeth

D:-Bilateral single edentulous area located anterior to remaining natural teeth which crosses the midline

Correct Answer:- Option-D

Question17:-Modification spaces in Kennedy's classification are

A:-Additional space in class IV

B:-Spaces posterior to all teeth

C:-Spaces other than the original classification

D:-Spaces anterior to all teeth

Correct Answer:- Option-C

Question18:-Lingual bar major connector is ideal for

A:-Lingual sulcus is deep

B:-Lingual sulcus is shallow

C:-When splinting of adjacent teeth is required

D:-When abutment teeth have poor bony support

Correct Answer:- Option-A

Question19:-The function of occlusal rest in cast RPD is to

A:-Stabilize the denture

B:-Resist vertical force of occlusion

C:-Prevent the lateral forces acting on the tooth

D:-Increase retention of partial denture

Correct Answer:- Option-B

Question20:-Flexibility of clasp depends on

A:-Composition and structure of material

B:-Length and cross section of clasp

C:-Amount of tempering and cold working

D:-All of the above

Correct Answer:- Option-D

Question21:-An extra coronal direct retainer should bear

A:-Passive relationship to the teeth

B:-Passive relationship to the tooth except when a dislodging force is used

C:-Active relationship to the teeth

D:-Active relationship to the tooth except when dislodging force is used

Correct Answer:- Option-B

Question22:-The angle between occlusal rest and vertical minor connector from which it originates should be

A:-90 degrees

B:-More than 90 degrees

C:-Less than 90 degrees

D:-None of the above

Correct Answer:- Option-C

Question23:-Labial bar major connector is indicated in all except

A:-Lingually tilted anterior teeth

B:-Labially tilted anterior teeth

C:-Inoperable lingual tori

D:-Presence of severe tissue undercuts

Correct Answer:- Option-B

Question24:-Purpose of work authorization in cast partial denture is all except

A:-Act as a protective legal document for the dentist and dental lab technician.

B:-Provide definite instruction for lab procedure to be done and implies an expectation of the level of acceptable quality for the services rendered.

C:-Delineate the responsibilities of the dentist and dental lab technician.

D:-It promotes the illegal practice of dentistry by delegating all the powers to the technician.

Correct Answer:- Option-D

Question25:-Porosity in the thicker portions of heat cured acrylic denture base resins is due to

A:-Inadequate mixing of polymer and monomer

B:-Vaporization of unreacted monomer

C:-Inadequate pressure or material in the mould

D:-Insufficient polymer - monomer ratio

Correct Answer:- Option-B

Question26:-The only flexible minor connector of cast partial denture is that

A:-Join the clasp assembly to major connector

B:-Join indirect retainers or auxiliary rests to major connector.

C:-Join denture base to major connector.

D:-Join the approach arm for a vertical projection of a bar-type clasp.

Correct Answer:- Option-D

Question27:-The desirable undercut that a cast retentive terminal of the clasp can engage in a cast partial denture is

A:-0.01 inch

B:-0.02 inches

C:-0.03 inches

D:-0.04 inches

Correct Answer:- Option-A

Question28:-The type of investment used for casting Base metal alloy is

A:-Gypsum bonded investments

B:-Phosphate bonded investments

C:-Silicate bonded investments

D:-All of the above

Correct Answer:- Option-B

Question29:-Incomplete casting or partially completed casting results due to all except

A:-Insufficient venting

B:-Incomplete elimination of wax

C:-Insufficient casting pressure

D:-Low viscosity of molten metal

Correct Answer:- Option-D

Question30:-The beading is done for the following maxillary major connectors, expect

A:-Closed Horse shoe major connector

B:-Palatal strap major connector

C:-Labial bar major connector

D:-U-shaped major connector

Correct Answer:- Option-C

Question31:-All of the following are components of fixed partial denture except:

A:-Retainers

B:-Pontic

C:-Connector

D:-Abutment

Correct Answer:- Option-D

Question32:-The most difficult bridges to replace are :

A:-Maxillary canines

B:-Mandibular canines

C:-Mandibular second molar

D:-Maxillary second molar

Correct Answer:- Option-A

Question33:-An aesthetic and a conservative alternative to full coverage restoration for anterior region is:

A:-Porcelain jacket crown

B:-Partial Veneer crown

C:-Full Veneer crown

D:-Laminate Veneer

Correct Answer:- Option-D

Question34:-A coping framework porcelain fused to metal should have a thickness of:

A:-0.7 mm

B:-0.2 mm

C:-0.5 mm

D:-1 mm

Correct Answer:-**Question Cancelled**

Question35:-The thickness of the die spacer should be :

A:-10 microns

B:-15 microns

C:-20 microns

D:-25 microns

Correct Answer:- Option-D

Question36:-Ring liner is used in a casting ring to :

A:-Facilitate venting of the mold

B:-Permit expansion of the mold

C:-Retard heating of the investment

D:-All of the above

Correct Answer:- Option-B

Question37:-Suck back porosity in the casting can be eliminated by :

A:-Reducing the mold metal temperature difference

B:-Flaring the point of sprue attachment

C:-Increasing the flow of molten metal

D:-Both 1 and 2

Correct Answer:- Option-D

Question38:-The hottest and efficient burning zone of the flame used for casting is :

A:-Oxidizing zone

B:-Reducing zone

C:-Combustion zone

D:-Mixing zone

Correct Answer:- Option-B

Question39:-The sprue in wax pattern during casting should be placed :

A:-At right angle

B:-At obtuse angle

C:-At 45 degree angle

D:-Depending on type of wax pattern

Correct Answer:- Option-C

Question40:-The maximum shrinkage during firing process occurs in :

A:-High bisque stage

B:-Low bisque stage

C:-Medium bisque stage

D:-Fusion stage

Correct Answer:- Option-C

Question41:-The best material for duplicating cast is :

A:-Agar-Agar

B:-Alginate

C:-Zinc oxide eugenol

D:-Plaster of Paris

Correct Answer:- Option-A

Question42:-The inlay was most commonly employed for indirect technique is:

A:-Type I

B:-Type II

C:-Carnauba

D:-Candella

Correct Answer:- Option-B

Question43:-Wax patterns should be invested as soon as possible to minimize dimensional changes due to :

A:-Shrinkage of wax patterns

B:-Expansion of wax patterns

C:-Distortion caused by the release of internal stresses

D:-Both 1 and 3

Correct Answer:- Option-C

Question44:-The abrasive used for finishing Porcelain fused to metal copings is :

A:-Zirconium silicate

B:-Tin oxide



C:-Aluminium oxide

D:-Rouge

Correct Answer:- Option-C

Question45:-The investment used for casting silver-palladium, gold-palladium and nickel-chromium alloys is :

A:-Gypsum bonded investment

B:-Phosphate bonded investment

C:-Ethyl silicate bonded investment

D:-Divestment

Correct Answer:- Option-B

Question46:-The anchorage utilized in the removable orthodontic appliances are

A:-Stationary anchorage

B:-Extra oral anchorage

C:-Simple anchorage

D:-Reciprocal anchorage

Correct Answer:- Option-C

Question47:-Thickness of wire recommended for the construction of an adam's clasp is

A:-0.7 mm

B:-1 mm

C:-0.8 mm

D:-0.9 mm

Correct Answer:- Option-A

Question48:-Following are the devices used for slow dentoalveolar expansion EXCEPT

A:-Hyrax screw

B:-Jack screw

C:-Quad helix

D:-Coffin spring

Correct Answer:- Option-A

Question49:-Welding of orthodontic attachments requires the application of

A:-Heat only

B:-Pressure only

C:-A solder material

D:-Heat and pressure

Correct Answer:- Option-D

Question50:-When heavy forces are applied for tooth movement, which of the

following will occur

A:-Hyalinization

B:-Undermining resorption

C:-Hyalinization and undermining resorption

D:-Necrosis of bone

Correct Answer:- Option-C

Question51:-The tooth movement which requires minimum orthodontic force is

A:-Extrusion

B:-Intrusion

C:-Tipping

D:-Bodily movement

Correct Answer:- Option-B

Question52:-The internal diameter of the helix of a single cantilever spring is

A:-4 mm

B:-2.5 mm

C:-1 to 2 mm

D:-3 to 4 mm

Correct Answer:- Option-B

Question53:-All removable appliances produce

A:-Continuous force

B:-Intermittent force

C:-Interrupted force

D:-Intermittent and interrupted force

Correct Answer:- Option-D

Question54:-When the length of an orthodontic wire is doubled, the deflection is increased by

A:-2 times

B:-16 times

C:-8 times

D:-4 times

Correct Answer:- Option-C

Question55:-The recommended thickness of the baseplate of removable orthodontic appliance is

A:-A single wax sheet

B:-As thick as possible

C:-As thin as possible

D:-3 to 4 mm

Correct Answer:- Option-A

Question56:-Which of the following statement is/are correct about Gypsum products :

1.  $\beta$ -hemihydrate particles are spongy and irregular in shape
2.  $\alpha$ -hemihydrate particles are prismatic and regular in shape
3. Modified  $\alpha$ -hemihydrate particles have increased surface area Comparing to  $\alpha$  and  $\beta$  particles that enhances the flow of the mixture

A:-Only 2 and 3

B:-Only 1 and 3

C:-Only 1 and 2

D:-All of the above (1, 2 and 3)

Correct Answer:- Option-C

Question57:-The function of special liquid in phosphate bonded investment is/are :

A:-To facilitate the divesting of the casting from the investment mold.

B:-To produce accurate and clean castings.

C:-To provide setting expansion and thermal expansion.

D:-To control the flow of molten metal.

Correct Answer:- Option-C

Question58:-The ions which help in cross linking of alginate sol are derived from :

A:-Potassium Titanium Fluoride

B:-Calcium Sulfate

C:-Zinc Oxide

D:-Sodium Phosphate

Correct Answer:- Option-B

Question59:-Setting time of Zinc oxide Eugenol impression paste can be shortened by :

A:-Adding a small amount of Zinc acetate

B:-Adding a drop of Water in the paste before mixing

C:-Extending the mixing time

D:-All of the above

Correct Answer:- Option-D

Question60:-The ideal mode of application of pressure on dental flask which permits the heat cure acrylic resin dough to flow uniformly throughout the mold space during compression molding technique is :

A:-Slow application of pressure

B:-Slow application of pressure initially followed by fast application of pressure

C:-Fast application of pressure initially followed by slow application of pressure

D:-Fast application of pressure

Correct Answer:- Option-A

Question61:-Which of the following is NOT the primary application of Lithiadiasilicate glass-ceramic :

A:-Anterior crowns

B:-Anterior laminate veneers

C:-Anterior three-unit bridges

D:-Premolar crowns

Correct Answer:- Option-B

Question62:-Wax which is used in indirect wax technique is :

A:-Soft wax

B:-Medium wax

C:-Hard wax

D:-Very hard wax

Correct Answer:- Option-A

Question63:-Highest water sorption is seen in :

A:-Glass ionomer cement

B:-Resin cement

C:-Resin modified glass ionomer cement

D:-Equal in (1) and (3)

Correct Answer:- Option-C

Question64:-Most commonly used implant design is :

A:-Transosteal implant

B:-Subperiosteal implant

C:-Epithelial implant

D:-Endosteal implant

Correct Answer:- Option-D

Question65:-Ideal properties of a material used for maxillofacial prosthesis are :

A:-High resistance to tearing and hardness similar to the missing facial tissue.

B:-High tensile strength and resulting elongation.

C:-Nontoxic, non allergenic and biocompatible.

D:-All of the above

Correct Answer:- Option-D

Question66:-Alloy used for making instruments for clinical and laboratory use

A:-Silver Amalgam

B:-Glass ionomer

C:-Wrought alloy

D:-Stainless Steel

Correct Answer:- Option-D

Question67:-Which among the following metals having highest Density

A:-Lithium

B:-Cadmium

C:-Titanium

D:-Osmium

Correct Answer:- Option-D

Question68:-What is a ternary alloy

A:-Alloy having two alloying constituents

B:-Alloy having three alloying constituents

C:-Alloy having five alloy constituents

D:-Alloy having only one constituent

Correct Answer:- Option-B

Question69:-Which metal mentioned below in a noble metal used in chemistry

A:-Nickel

B:-Copper

C:-Palladium

D:-Tin

Correct Answer:- Option-C

Question70:-Which metal mentioned below in considered as a base metal alloy

A:-Indium

B:-Ruthenium

C:-Titanium

D:-Platinum

Correct Answer:- Option-C

Question71:-Casting alloy used for making inlay restorations

A:-Type II casting alloys

B:-Type I casting alloys

C:-Type IV casting alloys

D:-Type III casting alloys

Correct Answer:- Question Cancelled

Question72:-Alloy used for fabrication of cast partial denture is

A:-Gold platinum

B:-Palladium Silver

C:-High Palladium

D:-Cobalt Chromium

Correct Answer:- Option-D

Question73:-Which alloy mentioned below cannot be heat treated for dental appliances

A:-White gold alloys

B:-Yellow gold alloys

C:-Gold Palatinum - Palladium alloys

D:-Gold-Silver-Copper alloys

Correct Answer:- Option-A

Question74:-Functions of antifix is

A:-To increase the melting temperature

B:-To strengthen the Solder joint

C:-To limit the solder to a specified area

D:-To prevent corrosion

Correct Answer:- Option-C

Question75:-Wet corrosion is otherwise called as

A:-Galvanic corrosion

B:-Electrolytic corrosion

C:-Stress corrosion

D:-Heterogenous corrosion

Correct Answer:- Option-B

Question76:-Transverse ridge formed by the union of

A:-Two triangular ridges

B:-Two marginal ridges

C:-Two cervical ridges

D:-Two oblique ridges

Correct Answer:- Option-A

Question77:-The buccal crest of contour of maxillary first premolar located in

A:-Occlusal 1/3

B:-Middle 1/3

C:-Cervical 1/3

D:-Gingival 1/3

Correct Answer:- Option-C

Question78:-The key to occlusion is :

A:-Maxillary permanent first molar

B:-Maxillary permanent second molar

C:-Maxillary primary first molar

D:-Maxillary primary second molar

Correct Answer:- Option-A

Question79:-Curve passing through the buccal and lingual cusp tips of the mandibular buccal teeth is :

A:-Catenary curve

B:-Wilson curve

C:-Monson curve

D:-Curve of Spee

Correct Answer:- Option-B

Question80:-Maximum contact between occlusal surfaces, of maxillary and mandibular teeth occur during

A:-Protrusive contacts

B:-Laterotrusive contacts

C:-Centric occlusion

D:-Rest position

Correct Answer:- Option-C

Question81:-Which of the following is NOT a muscle responsible for closing of the jaw?

A:-Masseter

B:-Temporalis

C:-Medial pterygoid

D:-Lateral pterygoid

Correct Answer:- Option-D

Question82:-Balanced occlusion is used in

A:-Complete Dentures

B:-Partial Dentures

C:-Crowns and Bridges

D:-Implants

Correct Answer:- Option-A

Question83:-Number of quadrants in oral cavity

A:-2

B:-3

C:-1

D:-4

Correct Answer:- Option-D

Question84:-There are \_\_\_\_\_ molars in a complete permanent dentition.

A:-14

B:-12

C:-18

D:-24

Correct Answer:- Option-B

Question85:-The three rounded eminence prominent in the incisal edge of newly erupted incisors are called

A:-Tubercle

B:-Lobe

C:-Cusp

D:-Mamelon

Correct Answer:- Option-D

Question86:-Heat waves from the sun reaches the Earth by the process of

A:-Conduction

B:-Radiation

C:-Convection

D:-None of the these

Correct Answer:- Option-B

Question87:-A man is walking from east to west on a level rough surface. The frictional force on the man is directed \_\_\_\_\_.

A:-from west to east

B:-from the east to west

C:-along the north

D:-along the west

Correct Answer:- Option-B

Question88:-The restoring force per unit area developed due to an applied tangential force is called

A:-Shearing stress

B:-Volume stress

C:-Tensile stress

D:-Compressive stress

Correct Answer:- Option-A

Question89:-When detergents are added to water, the surface tension of water will

A:-Increase

B:-Decrease

C:-No change



D:-None of these

Correct Answer:- Option-B

Question90:-When a person gets shocked by electric current then his

A:-Body temperature and viscosity of the blood increases

B:-Body temperature and viscosity of the blood decreases

C:-Body temperature decreases and viscosity of the blood increases

D:-Body temperature increases and viscosity of the blood decreases

Correct Answer:- Option-C

Question91:-An organic compound with molecular formula  $C_6H_6O$  on nitration using dilute

$HNO_3$  gives products A and B. The boiling point of A is greater than B. The product A is

A:-2 - Nitrophenol

B:-3-Nitrophenol

C:-4-Nitrophenol

D:-2-Nitro cyclohexanol

Correct Answer:- Option-C

Question92:-Potassium burns in oxygen to form superoxide ( $KO_2$ ). The oxidation state of potassium in  $KO_2$  is

A:-+2

B:-+1

C:-+3

D:-+4

Correct Answer:- Option-B

Question93:-The bond polarity is the deciding factor of acidic strength. The order of increasing acidic strength of following acids  $CH_4$ , HF,  $H_2O$  and  $NH_3$  is

A:- $CH_4 > HF > NH_3 > H_2O$

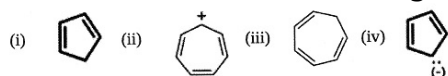
B:- $CH_4 < HF < NH_3 < H_2O$

C:- $CH_4 < NH_3 < H_2O < HF$

D:- $CH_4 < H_2O < HF < NH_3$

Correct Answer:- Option-C

Question94:-Which among the following are aromatic?



A:-(i) and (iii)

B:-(ii) and (iv)

C:-(iv) only

D:-(iii) only

Correct Answer:- Option-B

Question95:-The element which has anti-dental carries effect is

A:-Calcium

B:-Iron

C:-Phosphorous

D:-Fluorine

Correct Answer:- Option-D

Question96:-What is the term for a program or software that performs a specific task?

A:-Application

B:-Operating System

C:-Utility

D:-Driver

Correct Answer:- Option-A

Question97:-Which of the following is a common data entry software application?

A:-Microsoft Word

B:-Microsoft Excel

C:-Electronic Health Record (EHR)

D:-Database Management System (DBMS)

Correct Answer:- Option-D

Question98:-Which of the following is a common method of data retrieval in computerized record keeping systems?

A:-Querying

B:-Reporting

C:-Sorting

D:-Filtering

Correct Answer:- Option-A

Question99:-What is the primary function of email in receipt and dispatch of work?

A:-Data Entry

B:-Communication

C:-Reporting

D:-Analysis

Correct Answer:- Option-B

Question100:-What is the brain of a computer?

A:-CPU

B:-RAM

C:-Hard Drive

D:-Monitor

Correct Answer:- Option-A