

101: Which of the following is true regarding the use of flux for melting noble metal alloys?

- 1: It is added when the alloy has completely melted
2. It is used only with old metal
3. It is used only with new metal
4. It is added before melting the alloy

Ans: 1

102: The water content of most liquids, for zinc phosphate cements, is?

- 1: $15 \pm 3\%$
- 2: $33 \pm 5\%$
3. $50 \pm 5\%$
4. $66 \pm 10\%$

Ans: 2

103: Addition of manganese oxide would give which shade to porcelain?

- 1: Blue
2. Grayish white
- 3: Lavender
4. Green

Ans: 3

104: The material of choice for root form dental implants is

- 1: cobalt - chromium - molybdenum alloys
2. stainless steel
3. ceramics
4. titanium
5. tantalum-zirconium-carbon alloys

Ans: 4

105: The final product formed by the polymerization of a phenol formaldehyde resin. 'Bakelite', is termed

- 1: mers
2. essole
3. densite
4. resole
- 5: resite

Ans: 5

106: Commercial denture cleansers which liberate nascent oxygen, clean dentures by

- 1: dissolving organic debris
2. bactericidal action
3. chelating action
- 4: Mechanical action

Ans: 4

107: The principal corrosion product of dental gold alloys that contain silver, is?

- 1: silver chloride
- 2: silver sulfide
3. hydrogen sulfide
4. silver dioxide

Ans: 2

108: In noble metal casting alloys, platinum may be substituted by the

- 1: palladium
2. carbon
3. gallium
4. nickel
5. Iron

Ans: 1

109: Alginate Impression materials deteriorate rapidly at elevated temperatures, probably due to depolymerization of the alginate constituent?

- 1: Both the statement and reason are correct
- 2'. The statement is correct but reason is not correct
3. The statement is not correct but the reason is correct '
4. Both the statement and reason are incorrect

Ans: 2

110: Patients dislike the odor and taste of which Impression material?

- 1: Polysulfides
2. Polyethers
3. Alginates
4. Addition silicones
5. None of the above

Ans: 1

111: . Which of the following materials would have the least change in dimension because of changes in mouth temperature?

- 1: Acrylic resin
2. Gold inlay
3. Composite resin
4. Amalgam
- 5: Silicate cement

Ans: 5

112: If porcelain is to be fused to metal, which of the following properties of porcelain and metal should be similar?

- 1: Color
- 2: coefficient of thermal expansion
3. Modulus of rupture
4. Young's modulus
5. Compressive strength

Ans: 2

113: The strongest phase in dental amalgam is?

- 1: gamma
- 2: beta 1
- 3: gamma 1
- 4: alpha 2
- 5: gamma 2

Ans: 1

114: The primary corrosion products of amalgam are?

- 1: silver chloride or fluoride
- 2: copper sulfates
- 3: oxides and chlorides of tin
4. zinc and silver dioxide

Ans: 3

115: Zinc oxide eugenol pastes should not be used as?

- 1: a surgical dressing
2. a permanent filling material
3. a bite registration paste

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- 4. a temporary relining material for dentures
- 5. an impression material

Ans: 2

116: Creep is associated with?

- 1: flow of molten alloy along the sprue
- 2. contact angle measurement
- 3. slump occurring in porcelain glasses
- 4: marginal breakdown of amalgam
- 5. expansion of the investment mold

Ans: 4

117: Which of the following hardness tests uses a hardened steel ball indenting tool?

- 1: Rockwell hardness test
- 2. Vickers hardness test
- 3: Brinell hardness test
- 4. Knoop hardness test
- 5. Bierbaum hardness test

Ans: 3

118: The green strength of a gypsum product refers to its?

- 1: wet strength
- 2. actual strength
- 3. dry strength
- 4. apparent strength

Ans: 1

119: Which of the following would retard the setting reaction of zinc oxide - eugenol?

- 1: Rosin
- 2. High humidity
- 3. Glacial acetic acid
- 4. Primary alcohols
- 5: None of the above

Ans: 5

120: The cross linking reaction of poly-sulfide elastomers can be made more effective by the addition of a small amount of

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- 1: tin
2. lead
- 3: sulfur
4. fluoride
5. Platinum

Ans: 3

121: The sprue former should be attached to the wax pattern?

- 1: on a flat surface
2. in an area where the anatomy is not critical
3. at the thinnest point
4. on any proximal surface
- 5: at the point of greatest bulk

Ans: 5

122: The film thickness for a luting cement should not be greater than?

- 1: 100 micrometer
- 2: 1.5 μm
- 3: 25 μm
- 4: 500 μm

Ans: 3

123: In PFM (porcelain fused to metal) restorations, the porcelain bonds to metal by?

- 1: mechanical bonding
2. chemical bonding
3. compressive bonding
- 4: all of the above

Ans: 4

124: What should be the relation of the modulus of elasticity of a cement base and that of the restorative material?

- 1: There is no relation at all
2. The restorative material must have a higher modulus
3. The cement base must have a higher modulus
- 4: The modulus must be equal

Ans: 4

125: The property of flow is most important in?

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- 1: waxes
2. zinc oxide - eugenol cements
3. investments
4. gold alloys

Ans: 1

126: When liquefying agar hydrocolloid gel. it should not be boiled for more than 10 minutes, as this may result in?

- 1: decrease in strength
2. incorporation of undesirable stresses
3. leaching out of the plasticizer
4. all of the above
- 5: none of the above

Ans: 5

127: An elastomeric impression will be more accurate if it is?

- 1: removed as soon as it sets
2. removed after 8-10 minutes
- 3: allowed to remain in the mouth for a longer time
4. time in mouth is not critical for accuracy

Ans:3

128: An alloy is a solid mixture of?

- 1: two or more metals, one of which is mercury
2. three or more metals. one of which is gold
- 3: two or more metals
4. two or more metals, one of which is amalgam

Ans: 3

129: Methyl methacrylate based denture base resins contain all of the following. Except?

- 1: glycol dimethacrylate
2. dibutyl phthalate
3. benzoyl peroxide
4. pure methyl methacrylate
- 5-: sodium silicate

Ans: 5

130: When mixing dental stone, if the water-powder ratio is increased, the?

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- 1: compressive strength is increased
2. surface hardness is increased
3. setting time is decreased
- 4, setting expansion is decreased

Ans:4

131: What is the name given to the technique in which acrylic resin is softened by heat and introduced into flasks under pressure?

- 1: Fluid resin technique
2. Vacuum molding technique
3. Compression molding technique
4. Pressure technique
- 5: Injection molding technique

Ans: 5

132: Following casting, the gypsum mold is quenched in water when the button emits a

- 1: dull red glow
2. cherry red glow
3. light orange glow
4. dull grey glow

Ans:1

133: Which ingredient is added to Inlay wax to improve its smoothness during molding ?

- 1: Paraffin wax
2. Gum dammar
3. Candelilla wax
4. Carnauba wax
5. Ceresin

Ans: 2

134: When making an impression, the impression compound should be placed in the patient's mouth at

- 1: 75°C
2. 100.4°C
3. 37°C
- 4: 45°C
- 5: 60°C

Ans: 4

135: Sometimes a die larger than the prepared tooth is desired, to aid in compensating for the .

- 1: casting shrinkage of the alloy
2. dimensional change of the impression
3. warpage of the wax pattern
4. expansion of the mold

Ans:1

136: The phosphate investment clinging to base metal castings is cleaned by?

- 1: dipping in cold hydrofluoric acid
2. grinding with a bur or stone
3. heating in hydrochloric or sulfuric acid
- 4: sand blasting

Ans:4

137: The high initial solubility of silicate cements is attributed to the?

- 1:acid-base nature of the setting reaction
- 2: rather long time required for the setting reaction to go to completion -
3. low coefficient of thermal expansion of the cement
4. high water content of the cement liquid

Ans: 2

138: During the trial packing of resin into a mold, the excess which flows into the land surrounding the mold space. is termed?

- 1: sprinkle
2. sheet
3. rosin
4. trim
- 5: flash

Ans:5

139: An alloy in which the atoms of two metals intermingle randomly in a common space lattice, and the metals are soluble in each other in the solid state, is termed?

- 1: intermetallic compound
2. eutectic alloy
- 3: solid solution
4. peritectic alloy

Ans:3

140: The primary reason why conventional porcelain alone is not used as a crown and bridge restorative material, is its?

- 1: microleakage
- 2,. lack of strength
3. complicated fabrication technique
4. extreme hardness
5. lack of ductility

Ans: 2

141: Sand is used for the polishing of?

- 1: noble metal alloys
2. amalgam restorations
3. resin dentures
- 4: base metal alloys

Ans:4

142: Strain hardening of a metal would result in an increase in its?

- 1: elastic modulus
- 2: ductility
3. resistance to corrosion
- 4: strength

Ans: 4

143: Fillers are added in composite resins to?

- 1: inhibit deformation of the matrix
2. reduce the coefficient of thermal expansion of the resin matrix
- 3: both of the above
4. none of the above

Ans:3

144: The creep rate of an amalgam restoration decreases when the?

- 1: mix is overtrituated
2. time lag between trituration and condensation is more
3. mercury content of the mix is increased
4. mix is slightly undertrituated
- 5: condensation pressure is increased

Ans: 5

145: Which of the following statements is not true regarding addition polymerization reaction?

- 1: There is no change in the composition
- 2: Byproducts are formed
3. The reaction is exothermic
4. The reaction can be activated by UV light
5. None of the above

Ans:2

146: Which of the following resins are bio-degradable?

- 1: Cyanoacrylates
2. Polyurethanes
3. Polycarbonates
4. Polystyrenes
5. Epoxy resins

Ans:1

147: Microfilled composites contain filler particles with diameters in the range of ?

- 1: 4 - 20 μm
- 2: 0.04 - 0.06 μm
- 3: 20 - 80 μm
- 4: 0.8 - 6 μm

Ans: 2

148: Poly (methyl methacrylate) resin despite having a high volumetric curing shrinkage, can be used to produce clinically satisfactory dentures because?

- 1: shrinkage will be distributed uniformly over all surfaces of the denture
2. when packed under pressure the shrinkage will be reduced to acceptable levels
3. the separating media used, reduces the shrinkage
4. the heat employed in polymerization reduce the shrinkage

Ans:1

149: When restoring a cavity with direct filling gold, transverse strength and density would be greater, when?

- 1: combination of mat gold and electrolytic gold are used
2. powdered gold is used alone
3. gold foil is used alone
- 4: combination of mat gold and gold foil are used

Ans:4

150: When curing dentures, the surface or subsurface porosities occurring with the fluid resin technique, are commonly due to?

- 1: lack of adequate pressure during polymerization
- 2: failure to expel air inclusions incorporated during pouring of the resin
3. lack of homogeneity in the dough or gel
4. a definite lack of dough or gel in the mold at the time of final closure

Ans:2

151: Of the following, the most ductile metal is?

- 1: silver
2. palladium
- 3.platinum
4. Gold

Ans: 4

152: A desirable characteristic of Type II (Type B) inlay waxes used in the direct technique is that, they should?

- 1: have a color which matches that of the tooth
- 2: have a flow of less than 1% at 37°C
3. have a flow of at least 50% at 45°C
4. have a high coefficient of thermal expansion

Ans:2

153: Which of the following methods of manufacturing results in the hardest type of dental stone?

- 1: Calcining gypsum in open vats
- 2: 'Calcining gypsum in a 30% solution of calcium chloride
3. Direct mining from the earth
4. Calcining gypsum in a pressure pot under 20 lbs/inch² pressure

Ans: 2

154: The strength of zinc oxide - eugenol cements can be substantially increased by?

- 1: increasing the spatulation time
- 2: the addition of orthoethoxy benzoic acid
3. using a lower powder/liquid ratio
4. addition of a drop of water to the mix

Ans:2

155: Color matching should be done under two or more different light sources because of the phenomenon of?

- 1: radiance
2. Fluorescence
- 3: metamerism
4. eye fatigue
5. Munsell effect

Ans: 3

156: How many calories of heat are required to vaporize 1 gm of water at 100°C?

- 1: 1080
2. 270
3. 860
- 4: 540

Ans:4

157: Zinc oxide-eugenol paste is better than wax for making interocclusal records primarily because it

- 1: can be easily removed from undercuts
2. is more stable dimensionally
3. records surface detail better
- 4: offers no resistance to closing of the mandible
- 5: requires lesser time to set

Ans: 4

158: Which of the following materials provides body and strength to reversible hydrocolloids ?

- 1: Borax
2. Agar agar
3. Water
4. Lead dioxide

Ans:1

159: A buffering agent present in the liquid for silicate cements is?

- 1: aluminium phosphate
2. silicon dioxide
3. aluminium trioxide

- 4. silicon trioxide
- 5. calcium fluorophosphates

Ans: 1

160: What is the maximum permissible flow of impression compound (Type 1) at mouth temperature?

- 1: 1%
- 2. 3%
- 3: 16%
- 4. 18%
- 5. 40%

Ans: 3

161: The casting ring with the mold is placed in the furnace with the sprue hole

- 1: down
- 2. at an angle of 45°
- 3. up
- 4. Sideways

Ans: 1

162: The gelation temperature of colloid Impression material agar hydrocolloid should be

- 1 far below the oral temperature
- 2: 37.45*c
- 3: 10*C higher than mouth temperature
- 4. 45-60*C
- 5. above plaster setting temperature

Ans: 2

163: When mixing self-curing resins, decreasing the temperature of the mixing jar, would?

- 1: prolong the initiation period and dough forming time
- 2. prolong the initiation period and shorten the dough forming time
- 3; shorten the initiation period and prolong the dough forming time
- 4. shorten the initiation period and dough forming time

Ans: 1

164: In the polymerization of two monomers. if identical monomer units occur in relatively long sequences along the main polymer chain, the type of copolymer formed, is termed?

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- 1: selective
- 2: block
3. random
4. bridge
5. Graft

Ans: 2

165: When processing a mandibular denture from heat-curing resin by compression molding, porosities due to the boiling of monomer are most likely to occur in the?

- 1: buccal flange area
2. region around the necks of teeth
3. anterior region of the lingual flange
- 4: posterior lingual flange area
5. region of labial, flange

Ans: 4

166: Any of the following may occur with agar based impression material except?

- 1: imbibition
- 2: recrystallization
3. Hysteresis
- 4: syneresis
5. none of the above

Ans:2

167: All of the following are inorganic phases used in composite resins, except?

- 1: quartz
2. borosilicate
3. lithium aluminium silicate `
- 4: BIS-GMA resin
5. none of the above

Ans: 4

168: Which of the following least influences the setting time of zinc oxide-eugenol impression paste?

- 1: Rosin content
2. Presence of moisture
3. Change in ratio of the two pastes
4. Mixing time
5. Amount of calcium chloride

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Ans:1

169: Silicate cement restorations should never be used?

- 1: adjacent to caries susceptible areas
2. in esthetically critical areas
- 3: in mouth breathers
4. in persons with bruxismal tendencies

Ans: 3

170: A dental amalgam restoration (lathe cut alloy) will have higher strength if?

- 1: The mix is slightly overtriturated
- 2: higher condensation pressure is used
3. the mix is undertriturated
4. the mix has a high mercury to alloy ratio

Ans: 2

171: The best method of avoiding air bubbles in a gypsum mold is to?

- 1: use vacuum investing technique
2. use a mechanical mixer
3. vibrate the mix before and after mixing
4. vibrate the invested wax pattern on a vibrator

Ans:1

172: Impression compound should flow easily to?

- 1: duplicate undercuts
2. ensure uniform cooling
3. ensure that deformation is completely elastic
4. avoid incorporation of stresses
- 5: record surface detail accurately

Ans: 5

173: All of the following abrasives may be used in dentifrices, except?

- 1: calcium carbonate
- 2: sodium lauroyl sulfate
3. tricalcium phosphate
4. magnesium oxide
5. calcium pyrophosphate

Ans:2

174: A compound used as an activator in UV light cured resins is?

- 1: camphoroquinone
- 2: alkyl benzoin ether
3. heat
4. diketone
5. tertiary amine

Ans: 2

175: The primary advantage of microwave polymerization of resins over conventional hot water polymerization is that, microwave curing?

- 1: decreases porosity
- 2: is cleaner and faster
3. produces vastly superior strength and fracture resistance of resins
4. produces superior fit

Ans: 2

176: Pyroplastic flow of porcelain is decreased by the addition of?

- 1: soda form of feldspar
2. boric acid
- 3: potash form of feldspar
- 4: quartz

Ans: 3

177: Glass ionomer cements are primarily used for?

- 1: temporary restorations
- 2: restoring eroded areas
3. pulp capping
4. thermal insulating bases

Ans:2

178: The chief ingredient of an irreversible hydrocolloid impression material is?

- 1: sodium alginate
2. potassium oxalate 3: borax
- 4: calcium sulfate
5. zinc oxide

Ans: 1

179: Methyl methacrylate resins are used for all of the following, except?

- 1: for the manufacture of teeth
- 2: as impression materials
3. for constructing impression trays
4. as filling materials
5. none of the above

Ans: 2

180: Gold casting alloys can be age hardened by heating at?

- 1: 500°C for 10 min followed by slow cooling to room temperature
- 2: 300°C for 1 hour followed by slow cooling to room temperature
- 3: 750-900°C for 5-10 min and then quenching in water
- 4: 200-450°C for 15-30 min and then quenching in water

Ans: 4

181: When die spacers are used, the gypsum die is coated with resin?

- 1: only on the enamel surfaces
- 2: to within 0.5 mm of the margin
3. Upto 1.0mm cervical to the gingival finish line
4. onto the exposed portion of the tooth on the die

Ans: 2

182: Which of the following components of alginate impression material may be a possible health hazard?

- 1: Alginic acid
2. Triethanol amine
- 3: Silica
- 4: Anise
5. None of the above

Ans: 3

183: Butyl rubber dissolved in chloroform is used as a tray adhesive, when making an impression with

- 1: agar hydrocolloids
2. addition silicones
- 3: polysulfides

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- 4. condensation silicones
- 5. Alginates

Ans: 3

184: Pyroplastic flow of dental porcelain?

- 1: will be high if the soda/potash ratio is less
- 2. is determined by the soda form of feldspar
- 3: is determined by the potash form of feldspar
- 4. is determined by the quartz form
- 5. should be high

Ans: 3

185: When cristobalite is heated to 300°C, it?

- 1: exhibits slight shrinkage
- 2: changes from beta to alpha form
- 3: decreases in density
- 4. inverts from a high form to a low form

Ans: 3

186: The sol to gel transformation in the case of reversible hydrocolloids, is a function of ?

- 1: time
- 2. water content
- 3. potassium sulfate concentration
- 4. silica content
- 5: temperature

Ans: 5

187: A high mercury to alloy ratio in dental amalgam will result in?

- 1: more of the gamma phase being available
- 2: more matrix material being formed
- 3. high strength
- 4. low expansion
- 5. high corrosion resistance

Ans: 2

188: Which of the following characteristics of a dental resin does not play a major role in determining its physical properties?

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- 1: Degree of polymerization
2. Chain structure
3. Degree of crosslinking
- 4: Solubility
5. Molecular weight distribution

Ans: 4

189: A composite, restorative material essentially contains?

- 1: inorganic filler, organic filler, coupling agent
2. polymerizing resin, catalyst, pigment
3. resin matrix, activator, filler
- 4: filler, resin binder, coupling agent

Ans:4

190: An example of a eutectic alloy system is, silver and?

- 1: copper
2. tin
3. platinum
4. Gold

Ans:1

191: Biological tests in which the material is evaluated in experimental animals under conditions that simulate the clinical use of the material, are termed?

- 1: Level I tests
2. Level II tests
3. Level III tests
4. Level IV tests

Ans:2

192: The first manifestation that plaster has deteriorated from storage in a humid environment is?

- 1: decrease in hardness
2. a decrease in the setting time
3. a change in color
4. an increase in porosity

Ans: 2

193: The mixing of which of the following non-aqueous elastomeric impression materials is different from that of others?

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- 1: Addition silicones
2. Condensation silicones
3. Polysulfides
- 4: Putty silicones
5. None of the above

Ans:4

194: Polycarboxylate cement powder contains all of the following, except?

- 1: stannic oxide and stannous fluoride
2. magnesium oxide
- 3: potash alum
4. polyacrylic acid
5. zinc oxide

Ans: 3

195: The principal requisite for a die stone is?

- 1: high setting expansion
2. low porosity
3. high flow
- 4: great strength and hardness
5. controlled setting time

Ans: 4

196: Resins find use In dentistry as?

- 1: denture base materials
2. maxillofacial prosthetic materials
3. denture relining materials
- 4: All of the above
5. none of the above

Ans: 4

197: When restoring the posterior teeth in a child patient with amalgam, if it is difficult to keep the region dry, it is preferable to?

- 1: use zinc free alloys
2. fill the cavity in small increments
3. use automatic condensers
4. all of the above

Ans:1

198: The ability of a direct filled gold restoration to withstand the stresses present can be best explained by which physical characteristic of gold?

- 1: Dendritic microstructure
2. Transverse strength of about 39,000 psi
3. Apparent density of about 15 gm/cm³
4. Knoop hardness number of 60 to 75

Ans: 2

199: prior to investing the casting ring is lined with asbestos to?

- 1: prevent sliding of the investment mold
2. prevent confinement of mold expansion
3. permit easy retrieval of the casting
4. prevent cracking of the mold
5. reduce the amount of investment required for investing

Ans: 2

200: Which of the following forms of iron are soft and ductile?

- 1: Cementite and martensite
2. Martensite and ferrite
3. Ferrite and austenite
4. Austenite and cementite

Ans: 3