

कार्यालय प्राचार्य
शासकीय दंत चिकित्सा महाविद्यालय, रायपुर (छ.ग.)

क्रमांक 1910 / जीडीसी / स्था. / 2017

रायपुर, दिनांक 23-03-17

// सूचना //

शासकीय दंत चिकित्सा महाविद्यालय, रायपुर में डेन्टल मेकेनिक एवं लैब टेक्नीशियन पद के लिये संविदा भर्ती हेतु दिनांक 20/02/2017 को आयोजित लिखित परीक्षा का मॉडल उत्तर दिनांक 23/03/2017 को महाविद्यालय के सूचना पटल पर चस्पा एवं वेब-साईट www.govtdentalcollegeraipur.in में अपलोड किया गया है। उक्त मॉडल उत्तर पर किसी प्रकार की आपत्ति होने पर दिनांक 06/04/2017 तक दावापत्ति किया जा सकता है। उक्त तिथि के पश्चात् किसी भी प्रकार की दावापत्ति स्वीकार्य नहीं होगी। दावापत्ति का निराकरण प्राचार्य एवं चयन समिति द्वारा किया जावेगा, जो सर्वमान्य होगा।

— 2380
प्राचार्य 23/03/2017

शासकीय दंत चिकित्सा महाविद्यालय, रायपुर

शासकीय दंत चिकित्सा महाविद्यालय, रायपुर (छ.ग.)
लिखित परीक्षा दिनांक 20 फरवरी 2017
पदनाम – लैब टेक्नीशियन

प्रश्न पत्र क्रमांक:- **103**

अनुक्रमांक

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पर्यवेक्षक के हस्ताक्षर

उम्मीदवार के हस्ताक्षर

केन्द्राध्यक्ष के हस्ताक्षर

निर्देश :-

1. सभी प्रश्नों को हल करना अनिवार्य है।
2. इस प्रश्न पत्र में कुल 50 प्रश्न पुछे गये है। प्रत्येक प्रश्न हेतु 01 अंक निर्धारित है। ऋणात्मक अंक प्रणाली नहीं है।
3. परीक्षा हॉल/कमरे में केलक्युलेटर एवं मोबाइल फोन का उपयोग वर्जित है।
4. उत्तर के चार विकल्पों में केवल एक ही विकल्प पर (✓) लगाना है, दर्शाये गये चिन्ह के अलावा किसी प्रकार का चिन्ह लगाये जाने पर मान्य नहीं किया जावेगा।
5. एक प्रश्न के उत्तर में एक से अधिक विकल्पों का चयन करने अथवा चयनित विकल्पों को काटकर अन्य विकल्पों में चिन्ह अंकित करने पर अंक नहीं दिया जावेगा।
6. प्रश्न पत्र में विकल्पों के अलावा किसी भी स्थान पर चिन्ह (मार्किंग) करना वर्जित है।
7. उक्त परीक्षा में काले अथवा नीले रंग के बाल पेन/डॉट पेन का उपयोग करें।
8. नकल करना वर्जित है। नकल करते पाये जाने पर परीक्षा देने से वंचित किया जा सकता है।

Lab Technician Examination 20/07/2017

- Blood for an RBC count must be prepared from
 - (A) EDTA blood
 - (B) Citrated blood
 - (C) Heparinized blood
 - (D) Oxalated blood
- Which reagent is not routinely used to preserve tissue in a life-like manner
 - (A) Formic acid
 - (B) Zenkers fluid
 - (C) 40% formaldehyde dissolved in water
 - (D) Bouin's fluid
- Which piece of histology equipment is not temperature dependant
 - (A) Wax
 - (B) Tissue processor
 - (C) Microtome
 - (D) Embedding center
- A biopsy is
 - (A) A removal of biological fluid
 - (B) The removal of an organ
 - (C) A post mortem examination
 - (D) Excision of a representative tissue sample
- During tissue processing, what is the correct sequence of steps
 - (A) Clearing, dehydration, infiltration
 - (B) Clearing, infiltration, dehydration
 - (C) Dehydration, infiltration, clearing
 - (D) Dehydration, clearing, infiltration
- The liquid portion of blood remaining after a clot has formed is called
 - (A) The buffy coat
 - (B) Serum
 - (C) Plasma
 - (D) Lymph
- Which test could not be performed on a serum sample
 - (A) Iron
 - (B) Vitamin B 12
 - (C) Total lipids
 - (D) Clotting factors
- Normal hemoglobin in females
 - (A) 6 to 8 mg %
 - (B) 7 to 9 mg %
 - (C) 12 to 14 mg %
 - (D) 22 to 24 mg %
- The tourniquet is
 - (A) Applied very tightly to the arm
 - (B) Used to increase venous fill
 - (C) Applied about 6-8" above the elbow
 - (D) Tied in a knot to keep it on securely

Lab Technician Examination 20/07/2017

10. A blood specimen collected in a heparinized tube is centrifuged. It will separate into
- (A) Serum and clot (B) Plasma and clot
(C) Serum and plasma (D) Plasma, buffy coat, RBC
11. Hemolysis may result from
- (A) Using a 25 gauge needle on an adult (B) Vigorously shaking the blood specimen
(C) Refridgerating the vacutainer before use (D) All of the above
12. The test procedure that uses a westergren tube is
- (A) Erythrocyte Sedimentation rate (B) Hematocrit
(C) Reticulocyte count (D) Microhematocrit
13. What is the normal temperature of a laboratory refrigerator
- (A) -4°C (B) 0°C
 (C) 3°C (D) 20°C
14. The purpose of doing a differential is to
- (A) Determine the proportions of RBC in whole blood
(B) Count the number of WBC's in whole blood
 (C) Determine the proportions of WBC's in whole blood
(D) Diagnose anemia
15. Blood sample for cell counts must be thoroughly mixed immediately before testing to
- (A) prevent the clumping of platelets (B) Prevent the formation of small clots
(C) Oxygenate the sample (D) Ensure even distribution of all blood components
16. The first drop of blood is wiped away after performing a skin puncture to
- (A) Removal any pathogens that are present (B) Removal the last traces of alcohol
(C) Removal any excess tissue fluid (D) B & C
17. A disinfectant used on metal surface is:
- (A) 10% formalin (B) 2% glutaraldehyde
(C) 1% hypochlorite (D) 70% isopropyl alcohol

Lab Technician Examination 20/07/2017

18. The purpose of heat fixing a bacterial smear is to:
- (A) Prevent cells from being washed off during staining
 - (B) Causes the cells to absorb the stain more easily
 - (C) Provide a warm temperature for the bacteria to grow
 - (D) Make the cells visible under the microscope
19. Identify the correct sequence of steps on the gram stain procedure:
- (A) Primary stain, secondary stain, mordant, decolorizing
 - (B) Mordant, primary stain, decolorizing, counterstain
 - (C) Counterstain, mordant, primary stain, decolorizing
 - (D) Primary stain, mordant, decolorizing, counterstain
20. Which Gram stain reagent acts as a mordant to bind the stain to the bacteria:
- (A) Lugol's iodine
 - (B) Safranin
 - (C) Acetone-alcohol
 - (D) Gram's iodine
21. The autoclave is set at _____ for small loads:
- (A) 121 ° C for 50min at 6 p.s.i.
 - (B) 130 ° C for 30min at 30 p.s.i.
 - (C) 121 ° C for 15min at 15 p.s. i.
 - (D) 121 ° C for 45min at 15 p.s.i.
22. Serum is acidified after separation for which test:
- (A) Uric acid
 - (B) Frederickson typing
 - (C) Acid phosphate
 - (D) BUN
23. Which factor may cause a blood smear to be too thin:
- (A) The angle of the spreader is too high
 - (B) The edge of the spreader is cracked
 - (C) The smear is spread too slowly
 - (D) The angle of the spreader is too low
24. The buffy coat is made up of:
- (A) WBCs and platelets
 - (B) Granulocytes
 - (C) Erythrocytes and granulocytes
 - (D) Reticulocytes

Lab Technician Examination 20/07/2017

25. Which is not a liver function test:
- (A) Albumin (B) ALP
 (C) CK (D) Bilirubin
26. The most commonly used microscope in the clinical laboratory is the:
- (A) Electron (B) Dark-field
(C) Phase contrast (D) Light
27. Which is not a type of WBC:
- (A) Reticulocyte (B) Basophil
(C) Eosinophil (D) Monocyte
28. The anticoagulant required for a differential blood film:
- (A) Sodium citrate (B) EDTA
(C) Sodium heparin (D) Sodium oxalate
29. Xylene is used to:
- (A) Fix autopsy specimen (B) Dehydrate tissue
(C) Attach cover slips to slides (D) Clear tissue in paraffin wax
30. What is the mounting medium used to cover slip hematology slides:
- (A) Per-mount (B) Eosin
(C) Formalin (D) Xylene
31. Most popular color matching method for Hb estimation is
- (A) Alkali-Hematin method (B) Oxy hemoglobin method
(C) Cyan methemoglobin method (D) Sahli's method
32. Reduction in total leukocyte count is called
- (A) Leukocytosis (B) Leucopenia
 (C) Leucorrhea (D) Leukemia
33. Target cells are seen in peripheral blood in
- (A) Thalassemia (B) Sickle cell anemia
(C) Pernicious anemia (D) Aplastic anemia

Lab Technician Examination 20/07/2017

34. Increase in number of RBC is seen
- (A) Neutropenia (B) Leukemia
 (C) Polycythemia (D) Anemia
35. Which of the following does not react with gram's stain
- (A) Actinomyces israelii (B) Candida albicans
 (C) M. Tuberculosis (D) Streptococcus mutans
36. Most widely used fixative is
- (A) 10 % formalin (B) Bouin's fluid
(C) Carnoy's fluid (D) Luyol's solution
37. Most commonly used decalcifying solution for bone and teeth in laboratory is
- (A) Formic acid method (B) Nitric acid method
(C) Picric acid method (D) Acetic acid method
38. Tissue sections are attached on glass slide by
- (A) Egg adhesive from dried albumin (B) Mayer's albumin
(C) Potassium dichromate (D) Potassium iodide
39. Most commonly used method for staining cytology smears is
- (A) PAP method (B) H&E method
(C) PAS method (D) Von gieson method
40. The smears are air dried and methanol fixed for
- (A) MGG stain (B) PAP stain
(C) PAS stain (D) H & E stain
41. Used of Hb pipette are all except
- (A) For TLC (B) For RBC count
(C) For CSF cell count (D) For sputum collection
42. Two clinical important blood group systems are
- (A) ABO and Rh systems (B) MNS and P systems
(C) Kell and lewis systems (D) Duffy and Rh systems

Lab Technician Examination 20/07/2017

43. Name a disease in which sugar is present in urine
(A) Nephrotic syndrome
(B) Diabetes mellitus
(C) High blood pressure
(D) Osteomyelitis
44. Widal test is positive in
(A) Typhoid
(B) Malaria
(C) Hepatitis
(D) Tuberculosis
45. Normal range of neutrophils in DLC is
(A) 50-75%
(B) 25-45 %
(C) 30-50 %
(D) 15-30 %
46. Routinely used stain in histopathology is
(A) H & E stain
(B) PAS stain
(C) Mallory stain
(D) PAP stain
47. Acid fast bacilli are stained by
(A) Z-N stain
(B) Gram stain
(C) Albert stain
(D) H & E stain
48. Gram - ve bacteria stain during gram staining
(A) Blue colour
(B) Green
(C) Red colour
(D) Colorless
49. Following is used to stain fungi
(A) PAS
(B) Perl's Prussian blue
(C) Fontanna stain
(D) Mallory stain
50. Normal range of bleeding time is
(A) 2-9 minutes
(B) 4-8 minutes
(C) 3-5 minutes
(D) 2-12 minutes

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लिखित परीक्षा दिनांक 20 फरवरी 2017
पदनाम – डेन्टल मेकेनिक

प्रश्न पत्र क्रमांक:— 203

अनुक्रमांक

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पर्यवेक्षक के हस्ताक्षर

उम्मीदवार के हस्ताक्षर

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Dental Mechanic Examination 20/02/2017

1. For master casts ,for die fabrication, which of the following material is used ?
(A) Impression plaster (B) Model plaster
(C) Dental Stone (D) High strength dental stone
2. The sprue in wax pattern should be placed
(A) At right angle (B) At acute angle
(C) At obtuse angle (D) In any position
3. Gypsum bonded investment should not be heated above
 (A) 700 ° C (B) 900 ° C
(C) 1000 ° C (D) 1200 ° C
4. Sprue should be ideally made of
(A) Inlay wax (B) Plastic rod
(C) Hollow plastic (D) Hollow Metal
5. Crucible indicated for casting base metal alloys is
(A) Carbon crucible (B) Clay crucible
 (C) Quartz crucible (D) Plastic crucible
6. Incomplete casting is the result of
(A) More porous investment in the mould (B) Narrow sprue diameter
(C) Hollow sprue pin (D) Large reservoir
7. Gap between true end of casting ring and wax pattern should be
 (A) 1/4 inch (B) 1/2 inch
(C) 3/8 inch (D) 1.2 inch
8. Porosity in porcelain can be prevented by
 (A) Thoroughness of condensation (B) Rapidity of firing
(C) High firing temperature (D) All of the above

9. Porcelain is best fired
(A) In open air (B) Under air compression
(C) When several layers are fired simultaneously (D) Under minimum pressure
10. Flux used in dental ceramic is
(A) Alumina (B) Silica
(C) Kaolin (D) Boric oxide
12. Which among this following is super abrasive
(A) Sand (B) Silicon carbide
 (C) Diamond (D) Aluminium oxide
13. Crocus cloth is
(A) Emery (B) Garnet
(C) Pumice (D) Rouge
14. Ceramic fired to metals are processed by
(A) Heat pressing (B) Machining
 (C) Sintering (D) Slip casting
15. For air blasting of ceramic veneer the particle size of alumina is used
(A) 25 μm (B) 50 μm
(C) 75 μm (D) 100 μm
16. The best bio-compatible dental casting alloy is
(A) Co-Cr (B) Ni-Cr
 (C) Titanium alloy (D) Gold
17. The castability of Co-Cr base metal alloys when compared to gold-based noble metal alloys is
(A) More (B) Less
(C) Equal (D) Any of the above

18. The solvent flux used for base metal soldering is
- (A) Boric acid (B) Borax
 (C) Fluoride (D) Rouge
19. Binder in phosphate bonded investment is
- (A) Magnesium oxide & phosphate
(B) Magnesium oxide & Phosphoric Acid
 (C) Magnesium oxide & Mono ammonium phosphate
(D) Magnesium oxide & ortho phosphoric acid
20. Fins and spines on the casting is seen due to
- (A) Prolonged heating (B) Rapid heating rate
(C) Water film contamination (D) Too high pressure during casting
21. Function of wetting agents used in casting procedure is
- (A) To facilitate wetting of ring liner
(B) To facilitate mixing investment
 (C) To reduce contact angle of a liquid with wax surface
(D) For better wax eliminator
22. The main ingredient of inlay wax is
- (A) Candellia wax (B) Paraffin wax
(C) Carnauba wax (D) Gum dammar
23. Disadvantage of having short sprue is
- (A) Rapid solidification of metal (B) No place for reservoirs
(C) Difficulty in removing casting from investment (D) Incomplete evaluation of gases
24. V-shaped spaces that originate at proximal contact areas between adjacent teeth are known as
- (A) Isthmus (B) Ridges
 (C) Embrasures (D) Fosse

25. In dental clinics ' barrier technique' is used for
- (A) Impression making (B) Casting
(C) Investing (D) Asepsis
26. Which of the following is not a part of hand cutting instrument in operative dentistry
- (A) Shaft (B) Shank
(C) Blade (D) Angle
27. Rake angle is a feature of
- (A) Bur (B) Diamond point
(C) Chisel (D) Lecron carver
28. 'Miracle mix' is a type of
- (A) Composite resin (B) Dual cure resin
(C) Amalgam (D) GIC
29. The liquid used in Zinc phosphate cement is
- (A) Phosphoric acid (B) Polyacrylic acid
(C) Hydrochloric acid (D) Any of the above
30. Diamonds are superior to bur for cutting
- (A) Enamel (B) Dentin
(C) Resin (D) Metals
31. Instruments used for handling resins are made of
- (A) Stainless steel (B) Carbon steel
(C) Gold coated (D) Teflon coated
32. The recommended concentration of fluoride in communal water supply is
- (A) 0 PPM (B) 0.5 PPM
 (C) 1 PPM (D) 2 PPM

33. In esthetic dentistry, colour of the tooth is called
- (A) Hue (B) Chroma
(C) Value (D) Translucency
34. Which crown will have the maximum retention
- (A) 3/4 Crown (B) 3/5 Crown
(C) Post retain Crown (D) Full Cast
35. How many surfaces does the pontic have
- (A) 3 (B) 4
 (C) 5 (D) 7
36. Gold content of an 18 carat alloy is
- (A) 25 % (B) 50 %
 (C) 75 % (D) 100 %
37. Component of inlay wax which makes it flake resistant is
- (A) Paraffin (B) Carnauba
 (C) Gum dammar (D) All of the above
38. Casting shrinkage is compensated by
- (A) Thermal expansion (B) Hygroscopic expansion
(C) Wax expansion (D) All of the above
39. Impurities in casting are removed by
- (A) Annealing (B) Degassing
 (C) Pickling (D) Conditioning
40. Shape memory is seen in
- (A) Stainless steel wire (B) Nitinol wire
(C) TMA wire (D) Co-Cr Wire

41. Boxing wax is also called as
- (A) Carding wax (B) Inlay wax
(C) Utility wax (D) Sticky wax
42. Alginates are
- (A) Sol (B) Gel
(C) Colloid (D) Hydrocolloid
43. During teeth arrangement of complete denture, the following areas of maxillary teeth will touch the occusal plate
- (A) Incisal surface of lateral incisor, mesiopalatal cusp of 1st molar
(B) Incisal surface of central incisor, mesiopalatal cusp of 1st molar
 (C) Tip of the canine and buccal cusp of 2nd premolar
(D) Incisal surface of lateral incisor, both cusp of 2nd premolar
44. Chemically the cold mold seal is
- (A) Sodium alginate (B) Vaseline
(C) Calcium alginate (D) A type of fluid wax
45. The denture flask is compressed during flasking with hydraulic press at
- (A) 1500 psi (B) 3000 psi
(C) 500 psi (D) 4000 psi
46. The commonly utilized polishing agent for heat cure acrylic is
- (A) Pumice (B) Rouge
(C) Emery (D) Silica
47. The area, where spacer wax is not applied during fabrication of mandibular custom tray, is
- (A) Mid of the residual alveolar ridge
(B) Canine prominence
 (C) Buccal shelf area
(D) Small mandibular tori region, if these has to be covered with denture base

48. Oblique ridges are found in

(A) Incisors

(B) Canines

(C) Premolars

(D) Molars

49. The triangular ridges of mesiopalated and distobuccal cusp meet to form

(A) Marginal ridge

(B) Central ridge

(C) Oblique ridge

(D) Cingulum

50. Which tooth is named "corner stone of mouth"

(A) Canines

(B) 1st premolars

(C) Maxillary 1st molar

(D) Mandibular 1st molar