

AIIMS PG MAY 2006
(Based on Memory)

ANATOMY

1. The cell Junctions allowing exchange of cytoplasmic between two cells are called:

- A. Gap Junctions
- B. Tight Junctions
- C. Anchoring Junctions
- D. Focal Junctions

Ans: A

2. The cells belonging to the following type of Epithelium are provided with extra reserve cell-membrane:

- A. Transitional
- B. Stratified squamous
- C. Stratified Cuboidal
- D. Stratified Columnar

Ans: A

3. All the following muscles are grouped together as muscle of mastication except:

- A. Buccinator
- B. Masseter
- C. Temporalis
- D. Pterygoids

Ans: A

4. The development of first connection tissue forms "non synovial joint" is called as:

- A. Syndesmosis
- B. Synchondrosis
- C. Symphysis
- D. Suture

ANS: B

5. The Buffering capacity of a buffer is maximum at pH equal to

- A. 0.5pKa
- B. pKa
- C. pKa+1
- D. 2pKa

Ans: B

BIOCHEMISTRY

6. Which of the following is not a post-transcriptional modification of RNA?

- A. Splicing

- B. 5' – capping
- C. 3' – poly adenylation
- D. Glycosylation

Ans: D

7. The following separation techniques on molecular size of proteins?

- A. Chromatography on a carboxymethyl cellulose column.
- B. Iso-electric focusing
- C. Gel Filtration chromatography
- D. Chromatography on a diethylaminoethyl (DAAE) cellulose column.

Ans: C

8. R – Oxidation of odd – chain fatty acids produces:

- A. Succinyl CoA
- B. Propionyl CoA
- C. Accetyl CoA
- D. Malonyl CoA

Ans: B

9. The protein rich in basic amino acids which functions in the packaging of DNA in chromosomes is:

- A. Histone
- B. Collagen
- C. Hyaluronic acid binding protein
- D. Fibrinogen

Ans: A

10. The primary role of chaperones is to help in:

- A. Protein synthesis
- B. Protein degradation
- C. Protein denaturation
- D. Protein folding

Ans: D

DENTAL MATERIALS

11. The force applied during condensation of amalgam having a condenser measuring 2 mm in diameter:

- A. 3-4 lb
- B. 8-17 lb
- C. 10-15 lb
- D. 7-12 lb

Ans: A

12. The angles between adhesive and adherent are zero degree. It indicates:

- A. Complete wetting of surfaces
- B. Rough surfaces between adhesive and adherent
- C. Irregularities present between the adherent surfaces.
- D. The adherent and adhesive molecule are tangent to each other.

Ans: A

13. Which of the following is not a true wax?

- A. Paraffin
- B. Ozokerite
- C. Cocoa butter
- D. Candelilla

Ans: C

14. The half line of mercury in human body is:

- A. 55 days
- B. 55 hours
- C. 55 week
- D. 55 months

Ans: A

15. The diameter of scribe and sub-surface porosity will have:

- A. Direct relationship
- B. Inverse relationship
- C. Inverse square relationship
- D. No relationship

Ans: A

16. The length of scribe and subsurface porosity will have:

- A. Direct relationship
- B. Inverse relationship
- C. Inverse square relationship
- D. No relationship at all.

Ans: B

17. Which of the following is not true about casting gypsum bonded investment material:

- A. It is used for cast metal alloys
- B. 50 – 65% of gypsum changes to form (-hemihydrate
- C. The investment material is not heated above 700 ° temperature
- D. Heating above 700 ° of investment causes formation of sulphur dioxide from copper sulphate.

Ans: B

18. Which of the following is not correct about dental stone?

- A. High strength low expansion dental stone contains some additive to reduce expansion.
- B. Dental stone is manufactured by heating at temperature 110 – 120 °C in an open autoclave.

- C. Dental stone is much harder and stronger than B-hemihydrate.
D. Microscopically it is seen as cleavage fragments and crystals in the form of rods and prisms.

Ans: B

19. Like the eutectic transformation, the peritectic reaction is an invariant reaction (i.e. it occurs at a particular composition and temperature). The reaction can be written as:

- A. Liquid + $\beta \rightarrow \alpha$
B. Liquid + $\beta \rightarrow$ Liquid + α
C. Liquid $\rightarrow \alpha$ -solid solution + β -solid solution
D. $\alpha + \beta \rightarrow$ Liquid

Ans: A

PATHOLOGY

20. Which of the following procedures is routine for karyotyping using light microscopy:

- A. C-banding
B. G- banding
C. Q- banding
D. Brd V-Staining

Ans: B

21. An Albino girl gets married to a normal boy. What are the chances of their having an affected child and what are the chances of their children being carriers:

- A. None affected, all carriers
B. All normal
C. 50% carriers
D. 50% affected, 50% carriers

Ans: A

22. Osteomalacia is associated with:

- A. Decrease in osteoid volume
B. Decrease in osteoid surface
C. Increase in osteoid maturation time
D. Increase in mineral opposition rate.

Ans: C

23. In leukemic patient, gingival bleeding occurs during oral prophylaxis because of

- A. Increased leukocytes count
B. Increased calcium level in blood
C. Platelet disorder
D. Deficiency of clotting factor

Ans: C

24. The average number of CD4 cells in body fluid is:

- A. 800-1000/mm³

- B. 800-1200/mm³
- C. 500-800/mm³
- D. 400-600/mm³

Ans: B

MICROBIOLOGY

25. Heat labile instruments for use in surgical procedures can be sterilized by:

- A. Absolute alcohol
- B. Ultra violet rays
- C. Chlorine releasing compounds
- D. Ethylene oxide gas

Ans: D

26. A 60 year old man is diagnosed to be suffering legionnaire's disease after returns from attending a convention. He could have acquired it:

- A. From a person suffering from the infection while traveling in the aeroplane
- B. From a chronic carrier in the convention center
- C. From inhalation of the aerosols in the air conditioned room at convention center
- D. By sharing an infection towel with a fellow delegate at the convention

Ans: C

27. The most common micro organism causing sub-acute bacterial endocarditis after oral surgical procedure is:

- A. Streptococcus viridans
- B. Streptococcus muta
- C. Streptococcus aureus
- D. Streptococcus albus

Ans: A

PHARMACOLOGY

28. An anesthetist orders a new attendant to bring the oxygen cylinder. He will attendant to identify the correct cylinder by following color code:

- A. Black cylinder with white shoulder
- B. Black cylinder with grey shoulder
- C. White cylinder with black shoulder
- D. Grey cylinder with white shoulder

Ans: A

29. 50% eyelid Ptosis, blurring of vision, slurring of speech, indicating the correct level after Diazepam sedation is best explained by:

- A. Tinel's sign
- B. Verill's sign
- C. Corman's sign
- D. Bell's sign

Ans: B

30. All of the following regarding bioavailability of a drug are true, except:

- A. It is the proportion (fraction) of unchanged drug that reaches the systemic circulation
- B. Bioavailability of an orally administered drug can be calculated by comparing the under curve (AUC) after oral and intravenous (iv) administration.
- C. Low oral bioavailability always and necessarily means poor absorption.
- D. Bioavailability can be determined from plasma concentration of urinary excretion data.

Ans: C

31. Hemorrhage secondary to heparin administration can be corrected by administration of:

- A. Vitamin K
- B. Whole Blood
- C. Protamine
- D. Ascorbic acid

Ans: C

DENTAL HISTOLOGY

33. Which of the following does not contain Taste Buds?

- A. Circumvallate papillae
- B. Filiform papillae
- C. Fungiform papillae
- D. Foliate papillae

Ans: B

34. The disturbances occurred during "calcification" stage of tooth development are seen in:

- A. Peg lateral
- B. Microdontia
- C. Supernumerary tooth
- D. Interglobular dentin

Ans: D

GENERAL MEDICINE

35. Thirty eight children consumed eatables procured from a single source at a picnic party. Twenty children developed abdominal cramps followed by vomiting and watery diarrhea 6-10 hours after the party. The most likely etiology for the outbreak is?

- A. Rotavirus infection
- B. Enterotoxigenic E-coli infection
- C. Staphylococcal toxin
- D. Clostridium perfringens infection

Ans: D

36. In a post-operative intensive care-unit, five patients develop post- operative wound imfection in the same ward. The best method to prevent cross infection in other patients in the same ward is to?

- A. Give antibiotics to all other patients in the ward.
- B. Fumigate the ward.
- C. Disinfect the ward with sodium hypochlorite
- D. Practice proper hand washing.

Ans: D

37. A 5 years old boy passed 18 loose stools in last 24 hours and twice vomited in last 4 hours. He is irritable but drinking fluids. The optional therapy for this chid is:

- A. Intravenous fluids
- B. Oral rehydration fluids
- C. Intravenous fluid initially for 4 hours follwed by oral fluids
- D. Plain water ad libitun

Ans: B

38. Bedsore is an example of:

- A. Typical ulcer
- B. Trophic ulcer
- C. Venous ulcer
- D. Post-thrombotic ulcer

Ans: B

39. The most common histological type of thyroid cancer is:

- A. Medullary type
- B. Papillary type
- C. Follicular type
- D. Anaplastic type

Ans: B

COMMUNITY DENTISTRY & P.S.M

40. For the calculation of positive predictive of a screening test, the denominator is comprised:

- A. True Positives + False Negatives
- B. False Positives + True Negatives
- C. True Positives + False Positives
- D. True Positives + False Positives

Ans: C

41. The parameters of sensitivity and specificity are used for assessing:

- A. Criterion Validity
- B. Construct Validity
- C. Discriminate Validity
- D. Content Validity

Ans: A

42. A measure of location which divides the distribution in the ratio of 3 : 1 is:

- A. Mdian
- B. First quartile
- C. Third Quartile
- D. Mode

Ans: C

43. Chi-Square test is used to measure the degree of:

- A. Causal relationships between exposure and effect.
- B. Association between two variables.
- C. Correlation between two variables.
- D. Agreement between two observations.

Ans: B

44. Elements of primary healthcare include all of the following except:

- A. Adequate supply of safe water and basic sanitation.
- B. Providing essential drugs
- C. Sound referral system
- D. Health education

An: C

45. In water Fluoridation of a Community which of the following sequential is correct:

- A. Decayed tooth, central water suply agency, fluoride concentration in water and community applicant.
- B. Decayed tooth, fluoride concentration in water, central water suply agency and community applicant.
- C. Community applicant, decayed tooth, central water suply agency and fluoride concentration in water.
- D. Central water suply agency, decayed tooth, community applicant and fluoride concentration in water.

Ans: B

46. The age of the child used in the determination of child mortality rate is:

- A. 0-5 years
- B. 1-4 years
- C. 5-8 years
- D. 0-1 year

Ans: B

47. Primordial prevention is used to:

- A. Prevent development of risk factor in the community.
- B. Prevent the transmission of diseases.

- C. Prevent the development of diseases.
- D. To establish the diagnosis and treatment of diseases.

Ans: A

ORAL PATHOLOGY & MEDICINE

48. A tumor occurred in oral cavity which is represented as T3 N2 MO. This tumor is classified as:

- A. Stage I
- B. Stage II
- C. Stage III
- D. Stage IV

Ans: D

49. The characteristic "Multiple punched out lesion" is seen in:

- A. Multiple myeloma
- B. Hyperparathyroidism
- C. Fibrous Dysplasia
- D. Osteosarcoma

Ans: A

50. The other name for factor XI is:

- A. Stuart power factor
- B. Calcium ion.
- C. Plasma thromboplastin antecedit
- D. Plasma thromboplastin Component

Ans: C

51. Which of the following sugars present in the human diet is considered the most promoting?

- A. Sucrose
- B. Fructose
- C. Lactose
- D. Glucose

Ans: A

52. The non-cariogenic substitute used to replace the cariogenic diet is

- A. Lactose
- B. Glucose
- C. Cooked Starch
- D. Sorbitol

Ans: D

53. Which of the following is most appropriate therapy for a patient suffering from lesions of infectious mononucleosis?

- A. Analgesics

- B. Antibiotic
- C. Anticonvulsant
- D. No therapy as it is self limiting disease

Ans: D

54. The most common site of oral cancer among Indian population is:

- A. Tongue
- B. Floor of mouth
- C. Alveolobuccal complex
- D. Lip

Ans: C

55. The minimum distance used between film, object and target during radiography is:

- A. Four feet
- B. Five feet
- C. Six feet
- D. Seven feet

Ans: B

56. The normal percentage of enlargement or magnification considered normal in cephalogram is:

- A. 1-2%
- B. 6-7%
- C. 10-13%
- D. 14-16%

Ans: B

57. "Syncope" occurs while operative processes due to:

- A. Cerebral edema
- B. Cerebral hyperemia
- C. Cerebral hypoxia
- D. Cerebral degeneration

Ans: C

58. The straw colored proteinaceous fluid present in odontogenic keratocyst contains protein:

- A. Less than 3.5 gm/dl
- B. More than 3.5 gm/dl
- C. Less than 3.5 mg/dl
- D. More than 3.5 mg/dl

Ans: A

59. Which of the following is used in the management of hemophilic patient?

- A. Tranexamic acid
- B. Acetic acid

- C. Ascorbic acid
- D. Palmitic acid

Ans: A

60. Which of the following is correct reason of facial nerve injury during forceps delivery in labour:

- A. The mastoid process is absent at birth
- B. The parotid glands is in developing stage
- C. The beak of the forceps engages the main trunk of facial nerve.
- D. The sublingual hematoma during delivery causes neuropraxia.

Ans: A

61. The first instrument used on the facial surfaces of gingiva while gingivectomy is:

- A. Orban's Knife
- B. Kirkland Knife
- C. BP blade with no. 11 blade
- D. BP blade with no. 12 blade

Ans: B

62. Oral prophylaxis is contraindicated in:

- A. Pre-pubertal gingivitis
- B. Pregnancy gingivitis
- C. Ulcerative refractory gingivitis
- D. Leukemic gingivitis

Ans: D > C

63. Which of the following is used as a biodegradable membrane in "guided tissue regeneration" process?

- A. Polylactic acid
- B. Polytetrafluoroethylene
- C. Millipore
- D. Core membrane

Ans: A

64. Which of the following immunoglobulin is present in higher concentration in gingival crevicular fluid?

- A. Ig A
- B. Ig G
- C. Ig E
- D. Ig M

Ans: B

65. Trauma from occlusion causes:

- A. Periodontitis

- B. Gingivitis
- C. Periodontal pocket
- D. Widening of periodontal ligament.

Ans: D

66. The local drug delivery system "ELYZOL" contains:

- A. Metronidazole
- B. Penicillin
- C. Sanguinarine
- D. Tetracycline

Ans: A

67. The relationship of the denture base that resists dislodgement of denture in horizontal direction is:

- A. Stability
- B. Pressure
- C. Support
- D. Retention

Ans: A

68. Relining of complete denture is not indicated when:

- A. Denture contains broken teeth
- B. There is excessive resorption of the ridge
- C. Vertical dimension is excessively reduced and has to be changed
- D. Centric relation does not coincide with centric occlusion

Ans: C

69. The most suitable margin design for all ceramic restoration is:

- A. Shoulder
- B. Chamfer
- C. Shoulder with bevel
- D. Depends upon operators choice

Ans: A

70. In fixed partial denture it is better for posterior pontic to avoid contacts in:

- A. Working side contacts
- B. Balancing side contacts
- C. Side to side contact
- D. Centric occlusion

Ans: B

71. The pontic design of choice in the appearance zone of maxillary and mandibular bridge:

- A. Hygienic
- B. Modified ridge lap

- C. Saddle
- D. Conical

Ans: B

72. The pin used in pin restoration of a root canal treated tooth is:

- A. Self threaded pin
- B. Cemented pin
- C. Frictional pin
- D. Any of the above

Ans: B

73. Which of the following is not responsible for endogenous staining of teeth during development?

- A. Tetracycline
- B. Rh incompatibility
- C. Neonatal liver disease
- D. Vitamin C deficiency

Ans: D

74. Difference between physical characteristics of reamers and files is:

- A. The cross-section of reamers is square and files are triangular in cross section.
- B. The numbers of flutes on the blade are more in files than in reamers.
- C. The reamers have more flutes in the blade.
- D. Files have two superficial grooves to produce flutes in a double helix design.

Ans: B

75. Buckley's solution is composed of:

- A. Cresol, formaldehyde, water and glycerin
- B. Formaldehyde, resorcinol, water
- C. Iodoform, glutaraldehyde, ZOE
- D. Chloraldehyde, parachloral, methanol water

Ans: A

76. A dentist did restorative procedure in a 11 year old child and found the primary molar are in various stages of exfoliation and there is slight anterior crowding presents between the anterior teeth. The dentist should give his next appointment:

- A. After three months for bservation
- B. After six months for recall checkup
- C. After one year
- D. When all the permanent teeth will erupt

Ans: A

77. The rectangular wire used in edgewise appliance in primarily mean for:

- A. Correction of crown root position

- B. Increasing the strength of wire
- C. Correction of Arch-length Deficiency
- D. Used for correction of anterior crowding

Ans: A

78. The buccal coil spring is used to regain the space present between premolar and first molar. What is the most common complication post treatment?

- A. Pain
- B. Gingival irritation
- C. Tendency for the 1st molar to intrude
- D. Tendency for the for the 1st premolar to rotate

Ans: D

79. The arch space for eruption of permanent second and third molar is created by:

- A. Apposition of alveolar precess
- B. Resorption of posterior border of Ramus
- C. Resorption of anterior border of Ramus.
- D. Apposition of lower body of mandible.

Ans: C

80. The ANB angle of 2 degree usually indicats:

- A. A favorable relationship of maxillary alveolar base to Mandibular alveolar bas
- B. A favorable relationship of mandible to cranium.
- C. Poor cranial growth
- D. Upright incisors

Ans: A

81. Superposition in cephalometric studies is done from "registration point" This best demonstrates:

- A. Growth of structure farthest from point
- B. Growth of structure nearest to point.
- C. Growth at that point
- D. All of the above

Ans: A

82. When a maxillary removable orthodontic appliance is first placed, the effect on the patient's speech will probably include:

- A. Difficulty with lingual vowels for a few days.
- B. Difficulty with lingual vowels for several weeks.
- C. Difficulty with linguoalveolar consonants for a few days.
- D. Difficulty with linguoalveolar consonants for several weeks.

Ans: C

83. During smile a plesure carve is formed following the curve of interior teeth and some portion of mesial surfaces of each tooth is visible. How much percentage of mesial surface teeth is visible during smiling or "Golden Esthetic Rule" is:

- A. 50%
- B. 60%
- C. 70%
- D. 80%

Ans: B

84. Cephalometric analysis are used to evaluate growth changes by superimposing on:

- A. Sella-nasion plane
- B. Mandibular plane
- C. F-H plane
- D. Occlusal plane

Ans: A

85. The pulse-oxymetry is used in the determination of:

- A. Rtae of flow
- B. Oxygen Saturation
- C. Blood Volume
- D. Blood coefficint

Ans: B

86. The "Stainless Steel Crown" is invented by:

- A. Humphrey
- B. Willet
- C. Cvek
- D. Addleston

Ans: A

87. The non-invasive method to measure the blood flow is:

- A. Electric pulp test
- B. Percussion
- C. Radiograph
- D. Laser Doppler flometry

Ans: D

88. The KRI paste is composed of:

- A. Iodoform camphor, parachlorophenol and menthol
- B. Iodoform and ZOE
- C. Parachlorophenol, camphor and menthol
- D. Calcium hydroxide and iodoform

Ans: A

89. While fabricating bilateral distal shoe appliance for maintaining space lost by primary molar, the first factor considered is:

- A. Tooth anatomy
- B. Load of distribution
- C. Flexibility of wire
- D. Space present posterior to permanent

Ans: B

90. The distribution of dental caries in the best described by:

- A. Descriptive and analytical study
- B. Descriptive and experimental study
- C. Descriptive, analytical and experimental study
- D. Analytical and experimental study

Ans: A

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