



10. Orthodontics

- A child 6 years old having thumb sucking problem, brought by his parents to you, and it already caused dental problem to that patient. What you will do?*
 - Nothing to do, because its normal
 - Psychological treatment.
 - Advise the patient
 - Early habit breaking appliance.
- After patient came to your clinic and gave you the symptoms and history and complaints, what's your next ideal step in treatment process?*
 - Clinical examination.
 - Start endo.
 - Restore the teeth.
 - Take X-ray
- Flush terminal plane will most likely result in:*
 - Class I occlusion.
 - Class II occlusion.
 - Class III occlusion.
 - Any of the above.
- A 6 years old child came to your clinic with grossly decayed 74 and 84. You have extracted 74 and 84, and the first permanent molar was erupted. Which is the best space maintainer in this case?*
 - Lingual arch
 - Bilateral band and loop.
 - Bilateral distal shoe.
 - No need for space maintainer.
- A patient came to your clinic after the fall down from his bike. Clinical examination shows patient's tooth has crown fracture under the gingival level, and we want to use the tooth. What is the treatment ?*
 - Amalgam post core under the gingival.
 - Extrusion orthodontic.
 - Restoration under the gingival.
 - Extraction of the tooth.
- Which of the following conditions need prophylactic antibiotic coverage?*
 - Local anesthesia
 - Suture removal.
 - Routine tooth brushing.
 - Orthodontic band.
- After heavy force application, pain is normally felt after:*
 - 3 to 5 seconds.
 - 30 to 40 seconds.
 - 1 to 2 minutes.
 - 4 to 5 minutes.
- More than 90% of the growth of the brain or cranial vault is achieved by:*
 - 12 years of life.
 - 5 years of life.
 - 18 years of life.
 - 21 years of life.
- Some bones are formed by endochondral ossification like long bone, flat bone by intramembranous ossification and some bone by endochondral and intramembranous ossification*
 - True
 - False
- Which are the following appliances used for immobilization of fragments of broken parts of jaw bones in their original position until repair takes place?*
 - Splints.
 - Stents.
 - Obturator.
 - Speech aids.

10. Orthodontics

11. *Hardness of the materials is influenced by all of the following, except:*
- Strength.
 - Proportional limit.
 - Ductility.
 - None of the above.
12. *Sphenooccipital synchondroses carry the growth of anterior half of gonial base of cranium and upper part of face:*
- Forward and upward direction.
 - Forward and lateral direction.
 - Forward and downward direction.
 - Only forward direction.
13. *Ugly duckling stage:*
- 6-9 years old
 - 9-11 years old.
 - 13-15 years old.
 - 7-9 years old.
14. *Pacifier habit what you see in his mouth?*
- Open bite.
 - Cross bite
 - Deep bite
 - Scissor bite
15. *Prognosis with functional therapy is favorable in:*
- Pseudo deep bite.
 - Deep bite due to over eruption of incisors.
 - Deep bite due to infraocclusion of molars.
 - All of the above.
16. *A patient with missing lower right 1st molar for long time. You will find:*
- Mesial drifting of lower right 2nd molar
 - Intrusion of upper right 1st molar
 - Over eruption of lower right 2nd molar
17. *Over erupted upper right 1st molar will be managed by all except:*
- Intruded easily orthodontically
 - Crowning
 - Adjustment of occlusion
 - All the above
18. *Space between 52, 53 is called:*
- Bolton space.
 - Freeway space.
 - Leeway space.
 - Primate space.
19. *Orthognathic ridge relationship (class II) present several problems which should be taken into consideration when constructing a complete denture prosthesis. These include all except:*
- Require minimum interocclusal distance
 - Have a great range of jaw movement
 - Require careful occlusion, usually cusplless teeth are indicated
 - All the above
20. *Fractured tooth to alveolar crest. What's the best way to produce ferrule effect?*
- Restore with amalgam core sub-gingivaly.
 - Crown lengthening
 - Extrusion with orthodontics
 - All the above
21. *What is ferrule effect?*
- Restore with amalgam core sub-gingivaly.
 - Crown lengthening
 - Extrusion with orthodontics
 - None of the above
22. *A patient has a central incisor with severe resorption and who's going through an ortho treatment that is going to make him extract the premolars. Which of the following won't be present in the treatment plan?*
- RPD
 - Implant of incisors
 - Maryland bridge
 - Implant of the premolars.
23. *The change observed in the arch length of a child between 3 to 18 years is:*
- 4 mm
 - 11 mm
 - 17 mm
 - 34 mm

Section II: Topicwise Questions / Answers

24. Which of the following is the use of occlusal splint device?
- a. Alter muscle of mastication.
 - b. Occlusal plane CR/CO
 - c. Used during increase vertical dimension
 - d. All
25. The wire that is most suitable for making final tooth movements:
- a. Nitinol
 - b. Stainless steel
 - c. Gold
 - d. Beta titanium
26. Typically rapid palatal expansion is done with a Jackscrew that is activated at the rate of:
- a. 1 to 2 mm / week.
 - b. 1 to 2 mm / day.
 - c. 0.5 to 1 mm / week.
 - d. 0.5 to 1 mm / day.
27. In which of the following, the center of mandible and facial midline coincide in rest position?
- a. Laterognathy.
 - b. True cross bite.
 - c. Laterocclusion.
 - d. None of the above.
28. Jasper jumper is a:
- a. Flexible fixed functional appliance.
 - b. Rigid fixed functional appliance
 - c. Fixed functional appliance.
 - d. None of the above.
29. In order to produce tooth movement, the duration threshold (minimum time) for the wear of removable orthodontic appliance is:
- a. 1-2 hrs per day.
 - b. 2-4 hrs per day.
 - c. 4-6 hrs per day.
 - d. 7-8 hrs per day
30. First organ to be formed during development of face is:
- a. Nose
 - b. Eye
 - c. Ear
 - d. Mandible
31. Couple of force is:
- a. Two equal perpendicular forces
 - b. Two equal parallel forces acting in same direction
 - c. Two non equal perpendicular forces acting in opposite direction
 - d. Two equal parallel forces acting in opposite direction
32. Leeway space in maxilla and mandible is:
- a. 0.9 and 1.7 mm respectively.
 - b. 1.7 and 0.9 mm respectively.
 - c. 0.9 and 1.7 cm respectively.
 - d. 1.7 and 0.9 cm respectively.
33. The most prevalent primary molar relationship
- a. Flush terminal plane.
 - b. Mesial step terminal plane
 - c. Distal step terminal plane
 - d. All the above
34. Precision is indicated:
- a. After correction of midline diastema.
 - b. After correction of rotation.
 - c. After correction of crossbite.
 - d. Before correction of midline diastema.
35. Wires also called shape memory wires are:
- a. Stainless steel round wire.
 - b. Multiflex round wires.
 - c. Nickel titanium wires.
 - d. Stainless steel edgewise wire.
36. Nickel titanium wire fractured due which of the following property?
- a. Rigidity
 - b. Toughness
 - c. Shape memory
 - d. Axial fatigue

37. A mandibular "primate" space is usually found in the primary dentition between:
- Central incisors
 - Central and lateral incisors
 - Lateral incisors and canine
 - Canine and first molar
38. A single force applied at which point of a tooth will allow complete translation of the tooth:
- At the apex.
 - At the incisal edge.
 - At the center of resistance
 - At the center of rotation.
39. What is the type of sterilization applied on ligation/fixation wires?
- Boiling
 - Autoclave.
 - Hot air oven
 - Chemiclave
40. The principal fiber which prevents the extrusion of the tooth and lateral tooth movement:
- Horizontal fiber.
 - Alveolar crest groove.
 - Transseptal fiber.
 - Apical group.
41. The appropriate force level for tipping a single rooted tooth lies between:
- 10 and 12 gm
 - 20 and 50 gm
 - 60 and 80 gm
 - 90 and 110 gm
42. The labial bow in an activator is constructed with a:
- 0.6 mm.
 - 0.5 mm.
 - 0.7 mm.
 - 0.8 mm and slightly heavier.
43. Space loss occurs in:
- Proximal caries
 - Early extraction
 - Ankylosis
 - All of the above
44. Main etiology of class III malocclusions is:
- Hereditary
 - Abnormal muscle forces
 - Delayed eruption of permanent teeth
 - Abnormal frenal attachments
45. The long axis of the maxillary first molar is inclined to:
- Buccal.
 - Mesial.
 - Distal.
 - Lingual.
46. Why do you do arch length analysis in mixed dentition?
- To know there is enough space for eruption of premolar,
 - To know there is enough space for eruption of canine,
 - To know there is enough space for eruption of premolars and molars,
 - To know if there is enough space for eruption of canine and premolars.
47. Y-axis is used to analyze:
- Maxillary growth.
 - Mandibular growth.
 - Both 1 and 2.
 - To design appliance.
48. In classical Begg mechanotherapy, bite opening is primarily effected in:
- Stage I.
 - Stage II.
 - Stage III.
 - Stage IV.
49. Effect of pacifier and digit sucking
- Anterior open bite flaring maxillary incisors
 - Retruded and crowded mandibular incisors
 - Posterior cross bite, anterior displaced maxilla, and retruded mandible
 - All the above

Section II: Topicwise Questions / Answers

50. Orthodontics the buccal canine retractor is an example for intra oral intra arch anchorage:
a. True b. False
51. Primary dentist can treat except:
a. Minor tooth movement b. Multiple complex malocclusion
c. Removable appliance d. Don't remember
52. Pacifier habit will cause:
a. Crowding of tooth b. Class III malocclusion
c. Anterior open bite with posterior cross bite d. Skeletal malocclusion
53. Which disease shows a strong familial tendency?
a. Proclined maxillary incisors b. Deep bite
c. Open bite d. Cross-bite of incisors.
54. Broken NiTi file during BMP irt 25 which property of NiTi is responsible for the breakage of the NiTi files?
a. Rigidity & memory b. Superflexibility & memory
c. Antifatigue d. Torsion
55. The direct bonded orthodontic stainless steel brackets derive retention with composite because of:
a. The mechanical interlock with mesh at the bracket base.
b. The chemical interlock of composite with bracket base.
c. Both mechanical and chemical interlock of composite with the bracket base
d. Biological interlock between the tooth surface and bracket.
56. A child patient with missing upper anterior teeth (CI & LI) has to undergo premolar extraction for ortho treatment. What would be the treatment sequence?
a. First FPD then ortho treatment b. Bridge with composite resin
c. First ortho then acrylic plate d. None of the above
57. Ni-Ti wire has which of the following specific characters:
a. Flexibility b. High strength c. Shape memory d. All the above
58. The sequence of completion of facial growth by planes of space is:
a. Depth, width, height b. Height, depth, width.
c. Width, depth, height. d. Depth, height, width.
59. Force required for headgear to restrain maxillary growth is:
a. 50 to 100 gm per side. b. 150 to 200 gm per side.
c. 250 to 500 gm per side. d. 750 to 1000 gm per side.
60. The first bone formed in response to orthodontic loading is:
a. Bundle bone. b. Composite bone. c. Lamellar bone. d. Woven bone.
61. Incisal liability in the upper jaw is:
a. 1.7 mm. b. 6 mm. c. 0.9 mm. d. 7.6 mm.
62. Transitional dentition is characterized by:
a. Distoangular axial inclination of maxillary incisors.
b. Distoangular axial inclination of mandibular incisors.
c. Mandibular lateral incisors erupting lingual to central incisors.
d. Maxillary lateral incisors erupting lingual to central incisors.

10. Orthodontics

63. Force transmitted from the teeth in one arch to the teeth in opposing arch is termed as:
- Intramaxillary encourage.
 - Intramaxillary traction.
 - Intermaxillary traction.
 - Intermaxillary encourages.
64. Backward path of mandibular closure is seen in:
- Class II div 2.
 - Class I.
 - Pseudo class III.
 - True class III.
65. Oral screens are used for all of the following purposes, except:
- Tongue thrusting.
 - Mouth breathing.
 - Lip biting.
 - Retraction of upper protruded teeth.
66. The ratio of skeletal: dental expansion obtained finally after rapid palatal expansion is:
- 4:1.
 - 3:1.
 - 2:1.
 - 1:1.
67. When the orthodontist removes orthodontic brackets he noticed white decalcified lesion around the bracket. What he should do:
- Microabrasion and application of pumice then fluoride application.
 - Composite resin.
 - Leave and observe
 - None of the above
68. Growth spurts will be measured in the case when hand wrist radiographs are not available.
- Lateral cephalogram
 - Posterior anterior view
 - OPG
 - IOPA
69. Antibiotic prophylaxis to minimize risk of bacterial endocarditis is needed during:
- Placement of orthodontic bands
 - Use of retraction cords during prosthodontic procedures
 - Local anesthetic injections (non intraligamentary)
 - post operative suture removal
70. In maxillary arch, the primate space are found:
- Distal to deciduous canine.
 - Distal to maxillary lateral incisor.
 - Mesial to maxillary deciduous lateral incisor.
 - Distal to deciduous first molar.
71. Fishman's index is used in relation with;
- Population.
 - Hand wrist radiographs.
 - Cephalograms.
 - Periodontal diseases.
72. Space closure is least likely to occur following early loss of a:
- Primary maxillary first molar.
 - Primary maxillary second molar.
 - Primary maxillary central incisors.
 - Permanent maxillary central incisor.
73. Space lose occur in:
- Proximal caries.
 - Early extraction.
 - Ankylosis.
 - All of the above.
74. Primate spaces are related to the position of diastemas, which are present:
- Distal to deciduous maxillary canine
 - Mesial to deciduous maxillary canine and distal to deciduous mandibular canine
 - Mesial to deciduous maxillary canine
 - Mesial to deciduous mandibular canine

Section II: Topicwise Questions / Answers

75. 'Torque' in orthodontics indicates:
- The change in mesiodistal inclination of teeth.
 - The change in labiolingual (axial) inclination of teeth.
 - The rotation of teeth.
 - All of the above
76. Which of the following forces best accomplish orthodontic tooth movement?
- Heavy and continuous.
 - Heavy and intermittent
 - Light and continuous
 - Light and intermittent
77. Space closure is least likely to occur following early loss of a:
- Primary maxillary first molar
 - Primary maxillary second molar
 - Primary maxillary central incisors
 - Permanent maxillary central incisor
78. The average distance in each side in the lower arch for Leeway space:
- 0.8 in maxilla
 - 1.6 in maxilla
 - 2.5 in maxilla
 - 4.5 in maxilla
79. Force applied by removable appliance:
- Tapping
 - Compress
 - Pull
 - push
80. Space between upper 2 and 3:
- Primate space
 - Leeway space
81. Teeth which are responsible for crowding teeth:
- Primary lower first molar
 - Primary lower second molar
 - Permanent first molar
 - Primary max second molar
82. After doing ortho for rotated tooth we should do:
- Circumferencial frenctomy
 - Circumferencial fibrotomy
 - Frenectomy
83. What is the case the general dentist can treat?
- Exfoliation of primary canine
 - Functional cross bite
84. Pt has cross bite when he moves his mandible laterally. Why?
- Unilateral constriction of maxillary
 - Unilateral constriction of mandible
 - Asymmetrical growth of mandible
 - Bilateral constriction of maxilla
85. What is the most important teeth to prevent the severity of crowding?
- Upper E
 - Upper D lower E
 - Lower d
86. How can you increase flexibility of the clasp?
- Increase length
 - Increase diameter
 - Make it gingival approach
87. At which age parents should go to the orthodontist for consultation?
- When all permanent teeth erupt
 - When all anterior permanent erupt
 - When there is spacing present
 - When there is crowding present
88. Which is more important for Aker's clasp?
- Caries resistance mouth
 - Tooth mobility
 - Gingival recession
89. Rapid expansion:
- Once daily
 - Twice daily
 - Once weekly
 - Twice weekly

10. Orthodontics

90. *Habit causes malocclusion. Which is effective?*
a. Duration b. Magnitude c. Force
91. *How to preserve facebow:*
a. Self grinding of teeth b. Simple hinge articulate
c. Use of occlusal bite wax
92. *Most suitable to described NiTi;*
a. Rigidity b. Low coefficient of c. Friction
93. *In Miller classification if a tooth is moving 1 mm or more in all directions, it is:*
a. Miller class 1 b. Miller class 2 c. Miller class 3
94. *A female patient complaining of spaces in her upper anterior teeth. After examination there is a deep overbite and moderate overjet. What's the proper management you will do?*
a. Close the space b. Decrease the deep bite.
c. Retract the anterior teeth d. Reduce the overjet.
95. *A patient with periodontal problem and want to do orthodontics. What is the type of force effective?*
a. Light b. Tipping c. Intermittent
96. *A 25 years old female patient with 6 mm overjet. How to treat?*
a. Bionator b. Reverse headgear c. Extraction of premolar
97. *Mandible shifted to one side due functional interference leading to posterior cross bite on opposite side, Treatment will be?*
a. Unilateral expansion of maxilla on affected side b. Unilateral expansion of maxilla on unaffected side
c. Bilateral expansion of maxilla d. Mandibular expansion
98. *A patient with amelogenesis imperfect, wants to do ortho treatment:*
a. Invisalign system b. Traditional ortho braces
c. Lingual orthodontics d. Ceramic braces
99. *A patient had bone disease. He is doing ortho treatment. The teeth is not move with ortho treatment because patient taking medication what is the medication*
a. Vitamin D b. Misoprestor c. calcitonin
100. *Halterman appliance is for:*
a. Oral habit b. Cross bite c. For correct improper eruption molar

EXPLANATION

1. Answer: d
2. Answer: a
3. Answer: a
Reference: Damles' Textbook of Pediatric Dentistry, page 119
4. Answer: b
Reference: Damles' Textbook of Pediatric Dentistry
5. Answer: b
Extrusion orthodontic is called ferrule effect. It will help in crown lengthening of the tooth for prosthodontic management
6. Answer: d
Reference: Burket's Oral Medicine, 10th ed, page 381
7. Answer: a
Reference: Bhalaji Orthodontics: The Art and Science
8. Answer: b
Reference: Bhalaji Orthodontics: The Art and Science, page 10
9. Answer: a
Reference: Proffit's Contemporary Orthodontics
10. Answer: a
Reference: Peterson's principles of oral and maxillofacial surgery
11. Answer: d
Reference: Skinner's Science of Dental Materials, 10th ed, page 69
12. Answer: d
Reference: Bhalaji Orthodontics: The Art and Science, page 30, 31
13. Answer: b
Reference: Bhalaji Orthodontics: The Art and Science, page 48
14. Answer: a
Reference: Dentistry for Child and Adolescent
Children who were pacifier users were significantly more likely to show open bite, posterior crossbite increased overjet, and alteration in cheek mobility than habit-free children action during sucking, which leads to gingival injury recession, and loss of alveolar bone.
15. Answer: c
Reference: Gurkeerat Singh's Textbook of Orthodontics, page 70
16. Answer: a
17. Answer: a

10. Orthodontics

18. Answer: d

Reference: Bhalaji Orthodontics: The Art and Science, page 41

19. Answer: a

20. Answer: c

Extrusion with orthodontics: Using brackets (may cause movement of other abutment teeth) or utilizing an anchorage wire bonded to adjacent teeth restore with amalgam core sub-gingivaly will violate biological width crown lengthening will provide unesthetic results

21. Answer: c

Reference: Dental Secrets, Stephen T. Sonis, page 269

<http://www.dental-update.co.uk/articles/35/3504222.pdf>

"If the fracture is subgingival, remove the coronal segment and perform appropriate pulp therapy. Then reposition the remaining tooth structure coronally either orthodontically or surgically"

Both crown lengthening and orthodontic extrusion may allow for an increased ferrule, but they add additional cost, discomfort and length of treatment times for the patient. Crown lengthening increases the crown to root ratio.

22. Answer: d

23. Answer: a

Reference: Bishara's Textbook of Orthodontics, page 62

24. Answer: c

25. Answer: d

Reference: Proffit's Contemporary Orthodontics, page 331

26. Answer: d

Reference: Bhalaji Orthodontics: The Art and Science, page 25

27. Answer: c

Reference: Gurkeerat Singh's Textbook of Orthodontics, page 70

28. Answer: a

Reference: Bhalaji Orthodontics: The Art and Science, 3rd ed, page 361

29. Answer: c

Reference: Proffit's Contemporary Orthodontics, page 305

30. Answer: d

Reference: Bishara's Textbook of Orthodontics

31. Answer: d

Reference: Proffit's Contemporary Orthodontics, page 340

32. Answer: a

Reference: Bhalaji Orthodontics: The Art and Science, page 48

33. Answer: a

Reference: Damles' Textbook of Pediatric Dentistry, page 119

Section II: Topicwise Questions / Answers

34. Answer: b
Reference: Bhalaji Orthodontics: The Art and Science, page 454
35. Answer: c
Reference: Proffit's Contemporary Orthodontics, page 329
36. Answer: d
Reference: Proffit's Contemporary Orthodontics, page 329
Ni-Ti fracture is due to dynamic and cyclic fatigue
37. Answer: d
Reference: Proffit's Contemporary Orthodontics, page 76-77
38. Answer: c
Reference: Proffit's Contemporary Orthodontics, page 340
39. Answer: b
40. Answer: b
Reference: Glickman, 10th ed, page 70
41. Answer: b
Reference: Proffit's Contemporary Orthodontics, page 304
42. Answer: d
Reference: Bhalaji Orthodontics: The Art and Science, page 341
43. Answer: d
44. Answer: a
Reference: Proffit's Contemporary Orthodontics, page 127
45. Answer: b
46. Answer: d
47. Answer: b
Reference: Gurkeerat Singh's Textbook of Orthodontics, page 102
48. Answer: a
Reference: Bhalaji Orthodontics: The Art and Science, 3rd ed, page 322
49. Answer: d
50. Answer: b
Reference: Bhalaji Orthodontics: The Art and Science, page 208
(It's an example of active appliance, not for anchorage. Anchorage can be given by clasps, labial bows and base plate)
51. Answer: b
52. Answer: c
53. Answer: c
Reference: Proffit's Contemporary Orthodontics, page 127

10. Orthodontics

54. **Answer: d**
Reference: Proffit's Contemporary Orthodontics, page 329
Cyclic fatigue and torsional stress are the reasons for the NiTi files breakage.
55. **Answer: a**
Reference: Proffit's Contemporary Orthodontics, page 397
56. **Answer: c**
57. **Answer: c**
Reference: Proffit's Contemporary Orthodontics, page 329
58. **Answer: c**
Reference: Proffit's Contemporary Orthodontics, page 100
59. **Answer: c**
Reference: Bhalaji Orthodontics: The Art and Science, page 369
60. **Answer: a**
Reference: Bhalaji Orthodontics: The Art and Science, page 190
61. **Answer: d**
Reference: Bhalaji Orthodontics: The Art and Science, page 44
62. **Answer: a**
Reference: Bhalaji Orthodontics: The Art and Science, page 48
63. **Answer: d**
Reference: Bhalaji Orthodontics: The Art and Science, page 207
64. **Answer: a**
Reference: Gurkeerat Singh's Textbook of Orthodontics, page 70
65. **Answer: a**
Reference: Bhalaji Orthodontics: The Art and Science, page 336
66. **Answer: d**
Reference: Bhalaji Orthodontics: The Art and Science
67. **Answer: a**
68. **Answer: a**
69. **Answer: a**
Reference: Burket's Oral Medicine, 10th ed, page 381
70. **Answer: b**
Reference: Bhalaji Orthodontics: The Art and Science, page 41
71. **Answer: b**
Reference: Bhalaji Orthodontics: The Art and Science, 3rd ed, page 168
72. **Answer: c**
Reference: National Board Dental Examination, April 1989

Section II: Topicwise Questions / Answers

73. Answer: d

74. Answer: b

Reference: Proffit's Contemporary Orthodontics, page 76-77

75. Answer: b

Reference: Proffit's Contemporary Orthodontics, page 406

76. Answer: c

Reference: Proffit's Contemporary Orthodontics, page 301

77. Answer: c

78. Answer: b

79. Answer: a

80. Answer: a

81. Answer: b

82. Answer: a

83. Answer: a

84. Answer: d

85. Answer: b

86. Answer: a

87. Answer: d

88. Answer: a

89. Answer: b

90. Answer: a

91. Answer: b

92. Answer: c

93. Answer: c

94. Answer: c

95. Answer: a

96. Answer: c

Because 6 mm long space.

97. Answer: b

98. Answer: a

99. Answer: a

100. Answer: c

Ortho