

Printed Pages: 15

Sr. No.....

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

Total Questions: 150

Max. Marks: 150

Time: Three Hours

Roll No. (in figures)
(in words).....

.....
(Signature of Candidate)

I have checked the entries made above and in the OMR Sheet by the candidate.

.....
(Signature of invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE TO ATTEMPT THE QUESTION PAPER.

1. All the candidates must return the test booklet as well as answer-sheet to the Invigilator concerned before leaving the Examination Hall. If any candidate leaves the examination hall without handing over the test booklet/answer sheet to the Invigilator, a case of use of unfair means/ misbehavior will be registered against him/her in addition to lodging an FIR with the Police. The answer-sheet of such a candidate will not be evaluated.
2. The candidates must not do any rough work or writing work in the answer-sheet (OMR Sheet). All rough work is to be done in the test booklet.
3. Candidates will be required to darken the circle by using **blue/black ball point pen** only.
4. Books, papers, slide rule, log table, cellular phone, pager, calculator or any other electronic gadget etc. are not allowed in the Examination Hall.
5. **BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED THE CORRECT AND COMPLETE TEST BOOKLET CONTAINING SR. NO.1 TO 150 QUESTIONS, COMPLAINTS REGARDING MISPRINT ETC. WILL NOT BE ENTERTAINED 15 MINUTES AFTER THE EXAMINATION GETS STARTED.**

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

1. For rapid canine retraction using PDL distraction, canine is distalized at the rate of :
A. 0.5 mm /day
B. 1 mm/day
C. 1.5mm/day
D. 0.25 mm/day
2. Trans-palatal arch (TPA) is :
A. Minimum anchorage device
B. Moderate anchorage device
C. Maximum anchorage device
D. It does not provide anchorage control
3. Which of the following index is not used to assess outcome in cleft patients?
A. GOSLON yardstick
B. EUROCRAN index
C. Oslo index
D. Huddart Bodenham system
4. Tip edge bracket is developed by:
A. Robert Ricketts
B. Wick Alexander
C. Jaraback
D. Peter Kesling
5. From a clinical viewpoint, the major purpose of heating stainless steel archwire is :
A. To increase the elastic limit
B. To minimize breakage
C. To increase the resilience
D. To increase the yield strength
6. Who suggested the protocol of repetitive weekly alternate rapid maxillary expansion and constriction of the maxilla to disarticulate the maxilla for protraction?
A. Eric Liou
B. Peter Ngan
C. T Baccetti
D. V Delaire
7. Simultaneous use of class II elastics is recommended during labial torquing of upper incisors to prevent :
A. Roller coaster effect
B. Row boat effect
C. Bauschinger effect
D. Wagon wheel effect
8. Which of the following patients undergoing orthodontic treatment have an increased incidence of root resorption?
A. Uncontrolled diabetes
B. Asthma
C. Epilepsy
D. Rheumatoid arthritis
9. The concept of driftodontics was popularized by :
A. William Wilcko
B. Ronald Roth
C. Wick Alexander
D. Howard Lang
10. Which of the following copper NiTi variant would provide activation only after consuming hot food and beverages?
A. 15°C
B. 27°C
C. 35°C
D. 40°C
11. While using ICON index to assess treatment need, treatment is indicated if the summary score is :
A. 43
B. 36-40
C. 31-35
D. < 31

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

12. The optimal time to treat a child with Frankel's functional regulator is when the child is in:
A. Deciduous dentition
B. Early mixed dentition
C. Late mixed dentition
D. Permanent dentition
13. Which of the following is suitable condition for interproximal stripping :
A. Triangular incisors
B. Round premolars
C. Microdontic teeth
D. Screw driver shaped teeth
14. During development of foetus, the communication between the foregut and stomodeum is established at the end of :
A. Ninth week
B. Third week
C. Seventh week
D. Fifth week
15. According to Holdaway, the ratio of the distance of the lower incisors in front of the NB line and the distance of the bony chin in front of the NB line should be :
A. 1:1
B. 1:1.5
C. 1:2
D. 2:1
16. Masticatory performance of class III patients improve after orthognathic surgery; however, it takes upto _____ years to confirm a significant improvement in masticatory performance :
A. 3
B. 5
C. 7
D. 9
17. Which of the following is the most important reason for seeking orthodontic treatment?
A. To enhance dental appearance
B. To enhance facial appearance
C. To improve dental health
D. To enhance self-confidence
18. The recommended treatment cut off point of "dental aesthetic index" (developed by Cons et al, 1986) is :
A. 20
B. 25
C. 31
D. 36
19. The functional type of crossbite in which the midlines are centred in rest position but midline shift occurs in full occlusion, is called :
A. Laterocclusion
B. Laterognathy
C. Lateral occlusion
D. Lateroversion
20. Every millimetre of trans-palatal width increase in the premolar region produces a mm increase in available maxillary arch perimeter :
A. 0.5
B. 0.6
C. 0.7
D. 0.9
21. Following has abnormal lateral path of closure except :
A. Narrow maxilla
B. Class II div2
C. Class III
D. Class II div 1

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

22. "Obliteration Index" was developed by to quantify the percentage of ossification in the mid palatal suture :
- A. Person etal
B. Bishara etal
C. Mc Namara etal
D. Issacson etal
23. Who was first to describe a technique of surgically assisted rapid maxillary expansion with mid-palatal splitting?
- A. Brown
B. Angell
C. Hass
D. Heiss
24. "Guidance theory" for palatally placed or impacted maxillary canine was proposed by:
- A. Miller and Bass
B. Hitching
C. Lappin
D. Broadbent
25. In "Index of Orthodontic Treatment Need" (IOTN) patient is placed between how many grades?
- A. 3
B. 4
C. 5
D. 6
26. Idiopathic condylar resorption (ICR) is a relatively rare condition involving mainly female adolescents. In such a condition which of the following group/ category of malocclusion is usually seen?
- A. Class I
B. Class II
C. Class III
D. Any one of the above
27. Hook's law is not applicable for which of the following orthodontic wire?
- A. NiTi
B. A-NiTi
C. TMA
D. Stainless steel
28. The force decay rate of orthodontic polyurethane chain elastics is to the oral Ph :
- A. Inversely proportional
B. Directly proportional
C. Partially related
D. Cannot predicted easily
29. The GOSLON (Great Ormond Street, London) Yardstick was developed as a clinical tool that categorized dental arch relationships into.....discrete categories :
- A. 3
B. 4
C. 5
D. 6
30. In multifactorial inheritance, the likeness of parents and offsprings can be expressed by:
- A. Standard error
B. Degree of freedom
C. Correlation coefficient
D. All of the above
31. Correlation between the age and weight of a child is best represented by :
- A. Line diagram
B. Bar diagram
C. Histogram
D. Pi chart

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

32. The shape of "occlusal force curve" is similar to the positive half of which of the following curve?
A. Sine
B. Cosine
C. Tangent
D. Combination of above
33. Who among the following was first to propagate the long term retention using banded retainers?
A. Zachrison
B. Peck
C. Sheridan
D. Hagg
34. Which of the following is a sagittal dysplasia indicator?
A. ZEN angle
B. YEN angle
C. MEN angle
D. TEN angle
35. lateral Cephalogram of a patient showing Beta angle >35 degree, which is suggestive of
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite
36. Lateral Cephalogram of a patient showing W- angle <51 degree, which is suggestive of:
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite
37. Concept of rapid canine retraction through distraction of the periodontal ligament was given by :
A. Liou and Huwang
B. Nanda
C. Sugawara
D. Ngan
38. Commonest transposition in mandibular arch is between :
A. Canine and first premolar
B. Canine and lateral incisor
C. Lateral and central incisor
D. Canine and central incisor
39. STb lingual bracket was developed by :
A. Craven Karz
B. Giuseppe Scuzzo and Kyoto Takemoto
C. Silvia Geron and Kyoto Takemoto
D. Dirk Weichmann
40. Use of CBCT in orthodontics is recommended in all of the following except -
A. Impacted teeth
B. Facial asymmetry
C. Orthognathic surgery
D. Class III malocclusion
41. All of the following can be used to enhance the anchorage except :
A. Osteoprotegerin
B. RANKL
C. Bisphosphonate
D. Chromosomal Arch

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

42. Which of the following is not the Synostosis syndrome?
A. Treacher Collin syndrome B. Apert syndrome
C. Calvin CasePfeiffer syndrome D. Crouzon syndrome
43. Most commonly used file formats for 3-D printing is :
A. STL file B. DICOM file
C. STM file D. SLS file
44. Which one is not a lingual laboratory procedure?
A. TARG B. CLASS
C. HORA system D. Ray Set Biaggini bracket positioner
45. Which of the following factors is not contributing to lip projection?
A. Lip thickness
B. Dental protrusion/retrusion
C. Maxillomandibular protrusion/retrusion
D. Lip length
46. Microesthetics includes all except :
A. Width relationships and golden proportion
B. Height width relationship
C. Amount of incisor and gingival display
D. Gingival height shape and contour
47. According to Burden DJ with how much overjet incidence of coronal fracture is doubled?
A. 2 mm B. 3 mm
C. 4 mm D. 6 mm
48. The British incisor classification was modified in 1992 by ?
A. Ballard and wayman B. Ackerman and Proffit
C. Williams and Stephens D. Katz
49. Which of the following is involved in fluid dynamic theory of orthodontic tooth movement?
A. Squeeze film effect B. Halo effect
C. Roller coster effect D. Cart wheel effect
50. The syndrome involving bicoronalsynostosis defect and characterized by proptosis, hypertelorism, down slanting palpebral fissures, broad and medially deviated thumbs is:
A. Apert syndrome B. Crouzon syndrome
C. Pfeifer syndrome D. Muenke's syndrome
51. Signs of vertical growth rotation includes all except :
A. Long ramus B. Prominent antegonial notch
C. Large gonial angle D. Anterior inclination of condylar head

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

52. Which of the following is Indian innovation in the form of Cephalometric analysis and superimposition tool/
A. SmileCeph
B. QuickCeph
C. AutoCeph
D. A O Ceph
53. I point and I curve superimposition was proposed by :
A. Johnston et al
B. Standerwick et al
C. Richardson
D. McNamara
54. Which tool is used to locate musculoskeletally stable position of TMJ?
A. Leaf gauge
B. Korex gauge
C. Dontrix gauge
D. Boons gauge
55. While evaluating range of mandibular movements, lateral movement below which restricted movement is recorded is?
A. 6 mm
B. 8 mm
C. 10 mm
D. 12 mm
56. According to Burstone material stiffness number of Nitinol (when stainless steel is taken as 1.00) is :
A. 0.26
B. 0.34
C. 0.42
D. 0.50
57. The first self ligating system introduced was :
A. Ormco Edgelock
B. Russel lock
C. Orec speed
D. Adenta Time
58. Anatomic portion to the artistic portion of orthodontic study :
A. 3:1
B. 1:3
C. 2:1
D. 1:1
59. The success of SABG based on height of the interdental septum evaluated using :
A. Epworth scale
B. Goslon index
C. Bergland index
D. VAS
60. Corticotomy is not indicated in :
A. Severe crowding
B. Bimaxillary protrusion with a gummy smile
C. Maxillary transverse deficiency
D. Patient requiring high anchorage control
61. Class II elastics simultaneously used with upper incisor torquing is to prevent :
A. Bauschinger effect
B. Wagon wheel effect
C. Rollercoaster effect
D. Row boat effect
62. Energy absorbed by ionizing radiation per unit mass of is called :
A. Absorbed dose
B. Equivalent dose
C. Effective dose
D. Radiation dose

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

63. GTRV ratio for individual with normal growth pattern from age 8 to 16 years :
A.0.47
C.0.77
B.0.52
D.0.82
64. Usual site of failure during orthodontic debonding?
A. Adhesive and enamel surface
B. Between the adhesive and the bracket
C. Within the adhesive itself
D. Cannot be predicted
65. Head position for a cephalometric radiograph :
A. Natural head position
C. Mandibular plane parallel to floor
B. Positioned with ear rods
D. Cranial base parallel to floor
66. Cut off point for dental esthetic index :
A. 31
C. 53
B. 20
D.43
67. The ratio of skeletal to dental expansion obtained by rapid palatal expansion :
A.1:1
C.3:1
B.2:1
D. 4:1
68. Palatal fistula is operated if the size is more than :
A. 2mm
C. 5mm
B. 3mm
D. 10mm
69. For etching porcelain surfaces 9.6% HF gel is applied for :
A. 30 sec
C. 2 min
B. 1 min
D. 3 min
70. Jumping of bite concept was introduced by :
A. Anderson
C. Farrar
B. Kingsley
D. Emerson C Angell
71. Angle of convexity is :
A. SNA
C. N-A-Pog
B.SNB
D. ANB
72. Class III and pseudo class III malocclusion can be differentiated by :
A. Degree of cross bite
B. The presence of forward movement of the mandible in pseudo class III while closing
C. Molar relation and canine relationship
D. None of the above

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

73. Abnormal thick labial frenum results in :
A. Mid line diastema
B. Palatal inclination of the incisors
C. Labial inclination of the incisors
D. all of the above
74. The most anterior part of the bony chin is :
A. Gonion
B. Pogonion
C. Menton
D. Gnathion
75. Premature exfoliation of the primary canines indicates :
A. Arch length deficiency
B. Skeletal malocclusion
C. Arch length excess
D. None of the above
76. Maximum growth of skull is completed by the age of :
A. First 2 yrs
B. 2-4 yrs
C. 6-7 yrs
D. 9-10 yrs
77. Mid symphyseal suture closes by the age of :
A. 6 months
B. 18 months
C. 30 months
D. 5 years
78. The following dimension of the face at birth is close to the adult size :
A. Width
B. Depth
C. Height
D. All of the above
79. The teeth with development initiated after birth are :
A. Premolars, permanent second and third molars
B. Premolars and permanent molars
C. All permanent teeth
D. Only third molars
80. With flush-terminal plane, permanent first molars will erupt :
A. initially in class I relationship
B. initially in class II relationship
C. initially in end-to-end relationship
D. initially in class III relationship
81. The growth of bone is of endochondral type in the following except:
A. Ethmoid bone
B. Hyoid
C. Zygoma
D. Stapes
82. True about Leeway Space of Nancy is :
A. The amount of leeway space is about 2.5 mm in maxillary arch
B. The amount of leeway space is about 5.6 mm in mandibular arch
C. Both A&B are correct
D. Both A&B are incorrect
83. Ugly duckling stage:
A. Is seen in maxillary central incisor region between 12-13 years of age
B. Condition is seen during eruption of permanent canines
C. Type of malocclusion is not seen in lower arch
D. Path of eruption of mandibular canine is different from that of maxillary canines

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

84. Mandibular second premolar:
A. Is the tooth that shows greatest variation in eruption timing
B. Shows greatest variation in occlusal form next to maxillary IInd molar
C. Is the only premolar tooth that shows 3 cusps more frequently
D. Is the tooth in the mandibular arch that is most likely to be displaced due to arch size discrepancy
85. Following are "essential diagnostic criteria" according to Graber except:
A. Case history
B. Fascial photographs
C. Periapical X-rays
D. Lateral cephalograms
86. Frankfort horizontal plane is formed by joining:
A. Porion and Orbitale
B. Porion and sella
C. Nasion and sella
D. Porion and nasion
87. An 11 year old boy complains of spacing between maxillary incisors, the appropriate treatment is with:
A. Hawley's appliance
B. Fixed appliance
C. No treatment
D. Oral screen
88. Frankle -IV is used for:
A. Class -I malocclusion
B. Class -II malocclusion
C. Class -III malocclusion
D. Bimaxillary protrusion
89. Triangular roots are all except:
A. Canines
B. Maxillary centrals
C. Maxillary laterals
D. Mandibular molars
90. Father of modern orthodontics is :
A. Anderson
B. Dewey
C. Edward H-angle
D. Lischer
91. The Cu-NiTi wire indicated in patients sensitive to pain is :
A. Type 1
B. Type 2
C. Type 3
D. Type 4
92. According to Ricketts and Engel(1979) commonly found arch forms are all except :
A. Normal
B. Ellipse
C. Tapered
D. Ovoid
93. In mushroom shaped archwire given by Fujita molar offset given is :
A. 1 mm
B. 2 mm
C. 3 mm
D. 4 mm
94. Force decay seen in natural elastic within first hour of use is :
A. 10%
B. 15%
C. 30%
D. 50%
95. For uprighting a canine with mesially inclined root, box loop is placed such that :
A. Mesial arm is kept short
B. Distal arm is kept short
C. Occlusal arm is kept short
D. All arms are kept equal

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

96. The drawbacks of Kesling tooth positioned include :
- A. Requirement of repeated adjustment at frequent intervals
 - B. Difficulty in speech and risk of TMJ problems
 - C. Weakening of the periodontal condition of teeth
 - D. None of the above
97. Adjunctive orthodontic treatment means :
- A. Tooth movement carried out to facilitate other dental procedures necessary to control disease and restore function
 - B. Orthodontic treatment which would take more than six months duration
 - C. Orthodontic surgical procedures carried out along with orthodontic therapy to correct dentofacial deformities
 - D. None of the above
98. To align the favourably impacted canine in the arch, the orthodontists should :
- A. Extract the canine and then transplant it in the proper alignment
 - B. Remove the overlying soft tissue and bony tissue and try to pull the canine with the help of elastics applied directly to crown
 - C. Remove the overlying soft tissue and retract it into proper alignment with the help of removable appliance with canine retractor
 - D. Remove the overlying soft tissue and bony tissue and directly bond the crown of impacted canine, winding the ligature wire around the attachment, the other end of which is tied to the removable or fixed orthodontic appliance
99. The role of maxillary obturator as an intra-oral prosthetic device in a cleft palate patient is :
- A. To provide a false roofing against which the child can suckle
 - B. To provide cross arch stability preventing the arch from collapsing
 - C. Both of the above
 - D. None of the above
100. Which of the following statement about the midline diastema **IS CORRECT**?
- A. Midline diastema is easy to correct and easy to retain
 - B. Midline diastema is easy to correct and difficult to retain
 - C. Midline diastema is difficult to correct and easy to retain
 - D. Midline diastema is difficult to correct and difficult to retain
101. Most commonly used appliance for the treatment of deep bite is :
- A. Removable Hawley's appliance with posterior bite plane
 - B. Removable Hawley's appliance with anterior bite plane
 - C. Removable Hawley's appliance with anterior and posterior bite plane
 - D. None of the above
102. Skeletal anterior cross bite due to retropositioned maxilla should be treated :
- A. Before termination of growth by using a protraction face mask
 - B. After termination of growth by using a protraction face mask
 - C. Before termination of growth by using head gear
 - D. After termination of growth by using head gear

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

103. Cephalometric examination of a patient having skeletal anterior open bite may reveal:
- Downward and forward rotation of the mandible
 - Upward rotation of the mandible
 - Upward and forward rotation of the mandible
 - Upward and backward rotation of the mandible
104. A patient of 22 years of age with severe maxillary deficiency and mandibular prognathism should be best treated by :
- Extraction of first premolar from both the upper and lower arches
 - Using high pull head gear and chin cup
 - Surgical maxillary advancement and mandibular set back
 - Fixed orthodontic therapy only
105. Which of the following is the least likely to influence the anteroposterior position of maxillary incisors?
- Size of the apical base
 - Tongue buccinator mechanism
 - Being a concert clarinetist
 - Congenital absence of third molars
106. A radiograph of a 4 year old child reveals no evidence of calcification of mandibular second premolars. This means that :
- These teeth may develop later
 - The child will probably never develop second premolars
 - Primary second molars should be extracted to allow permanent first molars to drift forward
 - It is too early in life to make final predictions concerning development of any permanent teeth
107. A patient came to the dentist with skeletal class III tendency and giving a history of cleft palate for which he had been operated at 3 years of age. For the correction of maxillary deficiency the dentist uses which of the following orthopaedic appliances?
- Head gear
 - Face bow with head gear
 - A reverse pull head gear
 - All of the above
108. Growth of the maxilla in the vertical direction is due to :
- Growth of the alveolus
 - Growth at sutures
 - Growth of the cranial base
 - Growth of the synchondrosis
109. The implant method of studying growth was proposed by :
- Scammon
 - Borg
 - Belchier
 - Bjork
110. Oral and nasal capsule of functional growth is related to :
- Periosteal matrix
 - Sutural matrix
 - Capsular matrix
 - None of the above
111. Late mesial shift is due to :
- Closure of primate spaces
 - Eruption of first permanent molars
 - Related to end on – molar relation
 - Closure of Lee way space

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

112. Leeway space is :
A. 1.7 mm and greater in mandible B. 1.7 mm and least in mandible
C. 3.4 mm and greater in mandible D. 3.4 mm and least in mandible
113. Spaces in deciduous dentition is :
A. Physiological B. Pathological
C. Incisal liability D. None of above
114. Mesial step formation in deciduous dentition is indication of future :
A. Class II malocclusion B. Class III malocclusion
C. Anterior crowding D. Anterior cross bite
115. Incisal liability on an average in the maxillary arch is :
A. 3mm B. 6mm
C. 4mm D. 7.5mm
116. Tooth in the mandibular arch which is most likely to be displaced due to arch size discrepancy is?
A. First molar B. Second molar
C. First premolar D. Second premolar
117. Mouth breathing with enlarged adenoids and tonsils may be best described as :
A. Anatomic B. Obstructive
C. Physiologic D. Habitual
118. The abnormal swallowing pattern with the POOREST prognosis is :
A. Simple tongue thrust B. Complex tongue thrust
C. Infantile swallow D. Retained infantile swallow
119. A malocclusion is characterized by protrusion of maxilla, labioversion of maxillary incisors, deep overbite and overjet. These are typical characteristic of which malocclusion?
A. Class I B. Class II Div 1
C. Class II Div 2 D. Class III
120. Bruxism bears which one of the following relationships to malocclusion?
A. Malocclusion is only cause of bruxism
B. Malocclusion may be the cause of bruxism
C. Correction of occlusal discrepancy always eliminate bruxism
D. None of above
121. Abnormal muscle activity results in :
A. Bruxism B. Nail biting
C. Tongue thrusting D. Thumb sucking
122. Cephalometric was introduced by :
A. Margolis and William Wilson in 1925 B. Tweed and Mills in 1940
C. Bjork and Sassouni in 1995 D. Broadbent and Hofrath in 1932

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

123. Which of the following CANNOT BE assessed with cephalometric radiograph?
A. Mandibular retrusion
B. Vertical facial disproportion
C. Incisor position & angulation
D. Adequacy of dental arch perimeter
124. Tweed's triangle denotes :
A. The position of maxilla and mandible to each other
B. The angle between the mandibular plane and mandibular incisors
C. Relationship between maxillary central and mandibular central incisor
D. Profile of an individual
125. Which of the following landmarks is present in the angle of mandible?
A. Gnathion
B. Gonion
C. Pogonion
D. Porion
126. The human temporomandibular joint function as a lever :
A. Class I
B. Class II
C. Class III
D. All of the above
127. Baume type II classification of primary dentition is characterized by :
A. Closed contacts between the teeth
B. Open contacts between the teeth
C. Proclined teeth
D. Retroclined teeth
128. The concept of "accelerated facemask therapy" was put forwarded by :
A. Hickham
B. Petit
C. Grummon
D. Delaire
129. Alteration in root shape before and after orthodontic treatment using radiographic modality was first proposed by:
A. Ketcham
B. Newman and Proffit
C. Kaley and Phillips
D. Malmgren and Lavender
130. In diagnostically driven robotic assisted orthodontics (DDRA) technology (e.g. suresmile) robots can bend the arch wire with an angular and linear accuracy of:
A. 1degree and 0.01mm
B. 0.1degree and 0.01mm
C. 1degree and 0.1mm
D. 2degree and 1mm
131. Extraoral elastics are anchored from facebow to headgear or from maxillary splint to facemask to apply heavy force. The light or training extraoral elastic used to apply force of :
A. 8 OZ
B. 12 OZ
C. 14 OZ
D. 16 OZ
132. Many procedures are used to accelerate the orthodontic treatment time. Among these which does not accelerate the orthodontic tooth movement :
A. PTH
B. Osteoprotegerin
C. MOP
D. Corticotomy

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

133. In general upto how many millimetres of overjet can be corrected by dentofacial orthopaedics appliances in growing children?
A. 0 to 7 mm
B. 5 to 7mm
C. 12 to 15mm
D. 15to 18mm
134. Katz classification of malocclusion is based on :
A. Canine relation
B. Premolar relation
C. Molar relation
D. Incisor relation
135. Which of the following is not a 3-D printing technology based manufacturing process?
A. Selective laser sintering
B. Rapid protoisolation
C. Fused deposition modelling
D. Polyjet photopolymerization
136. According to Moyers, development is :
A. Growth+ differentiation
B. Growth+ differentiation + translation
C. Differentiation + translation
D. Growth+ differentiation + transcription
137. Use of CBCT in orthodontics is recommended in all of the following except :
A. Impacted teeth
B. Facial asymmetry
C. Orthognathic surgery
D. Class II malocclusion
138. As far as etching pattern of enamel surface of tooth is concerned, which of the following etch pattern of enamel surface is/ are preferred?
A. Type I
B. Type II
C. Type III
D. Type I and II
139. All of the following are commercially available Co-Cr alloy for orthodontic archwire except :
A. Elgiloy
B. Azura
C. Multiphase
D. Dual flex
140. The relationship in change of position of upper lip and linear retraction of maxillary incisor is usually :
A. 1:1
B. 1:2
C. 1:3
D. 1:4
141. Sunday bite is most commonly seen in :
A. Class II division 1 malocclusion
B. Class II division 2 malocclusion
C. Class I type 2 malocclusion
D. Class I type 3 malocclusion
142. Which of the following is not a sagittal dysplasia indicator?
A. Beta angle
B. W angle
C. Yen angle
D. Omega angle
143. Cephalogram of a patient showing beta angle <27 degree, it indicates :
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite
144. Steiner's compromise is indicated for the camouflage treatment of :
A. Class I malocclusion
B. Class II malocclusion
C. Periodontal compromise cases
D. Open bite cases

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-C

145. Growth treatment response vector (GTRV) was given by :
A. Liou and Huwang
B. Nanda
C. Sugawara
D. Ngan
146. Steiner's mandibular plane is formed by joining following points :
A. Go- point D
B. Go-Pog
C. Go-Me
D. Go-Gn
147. Blue grass appliance was given by :
A. Grass B
B. Haskell
C. Chug Haw Kaw
D. George Faber
148. Characteristic feature of binder's syndrome is :
A. Maxillonasal dysplasia
B. Class II malocclusion
C. Scissor bite
D. Open bite
149. Hybrid functional appliance is used to address :
A. Sagittal component of asymmetry
B. Transverse component of asymmetry
C. Vertical component of asymmetry
D. Both transverse and vertical component
150. In cleft lip palate cases in infant orthodontics treatment should be started at the age of :
A. 3 - 6 week
B. 1 - 2 week
C. After 6 week
D. Just before surgery

KEY OF DCI-PGD-ORTHOD-2018-P-2-SET-1C

1	A	41	B	81	C	121	C
2	B	42	A	82	D	122	D
3	C	43	A	83	A	123	D
4	D	44	C	84	B	124	B
5	B	45	D	85	D	125	B
6	A	46	C	86	A	126	C
7	B	47	B	87	C	127	A
8	B	48	C	88	D	128	B
9	C	49	A	89	D	129	A
10	D	50	C	90	C	130	C
11	A	51	A	91	B	131	A
12	B	52	C	92	B	132	B
13	A	53	B	93	C	133	C
14	B	54	A	94	A	134	B
15	A	55	B	95	C	135	B
16	B	56	A	96	B	136	B
17	A	57	B	97	A	137	D
18	C	58	A	98	D	138	D
19	A	59	C	99	C	139	D
20	C	60	B	100	B	140	C
21	D	61	D	101	B	141	A
22	A	62	A	102	A	142	D
23	A	63	C	103	A	143	B
24	A	64	B	104	C	144	B
25	C	65	A	105	D	145	D
26	B	66	A	106	A	146	D
27	B	67	A	107	C	147	B
28	A	68	A	108	A	148	A
29	C	69	C	109	D	149	C
30	C	70	B	110	C	150	A
31	A	71	C	111	D		
32	A	72	B	112	C		
33	A	73	A	113	A		
34	B	74	B	114	B		
35	C	75	A	115	D		
36	B	76	C	116	B		
37	A	77	B	117	B		
38	B	78	A	118	D		
39	A	79	A	119	B		
40	D	80	C	120	B		

Printed Pages: 15

Sr. No.....

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

Total Questions: 150

Max. Marks: 150

Time: Three Hours

Roll No. (in figures)

(in words).....

.....
(Signature of Candidate)

I have checked the entries made above and in the OMR Sheet by the candidate.

.....
(Signature of invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE TO ATTEMPT THE QUESTION PAPER.

1. All the candidates must return the test booklet as well as answer-sheet to the Invigilator concerned before leaving the Examination Hall. If any candidate leaves the examination hall without handing over the test booklet/answer sheet to the Invigilator, a case of use of unfair means/ misbehavior will be registered against him/her in addition to lodging an FIR with the Police. The answer-sheet of such a candidate will not be evaluated.
2. The candidates must not do any rough work or writing work in the answer-sheet (OMR Sheet). All rough work is to be done in the test booklet.
3. Candidates will be required to darken the circle by using **blue/black ball point pen** only.
4. Books, papers, slide rule, log table, cellular phone, pager, calculator or any other electronic gadget etc. are not allowed in the Examination Hall.
5. **BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED THE CORRECT AND COMPLETE TEST BOOKLET CONTAINING SR. NO.1 TO 150 QUESTIONS, COMPLAINTS REGARDING MISPRINT ETC. WILL NOT BE ENTERTAINED 15 MINUTES AFTER THE EXAMINATION GETS STARTED.**

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

1. All of the following can be used to enhance the anchorage except :
A. Osteoprotegerin
B. RANKL
C. Bisphosphonate
D. Chromosomal Arch
2. Which of the following is not the Synostosis syndrome?
A. Treacher Collin syndrome
B. Apert syndrome
C. Calvin CasePfeiffer syndrome
D. Crouzon syndrome
3. Most commonly used file formats for 3-D printing is :
A. STL file
B. DICOM file
C. STM file
D. SLS file
4. Which one is not a lingual laboratory procedure?
A. TARG
B. CLASS
C. HORA system
D. Ray Set Biaggini bracket positioner
5. Which of the following factors is not contributing to lip projection?
A. Lip thickness
B. Dental protrusion/retrusion
C. Maxillomandibular protrusion/retrusion
D. Lip length
6. Microesthetics includes all except :
A. Width relationships and golden proportion
B. Height width relationship
C. Amount of incisor and gingival display
D. Gingival height shape and contour
7. According to Burden DJ with how much overjet incidence of coronal fracture is doubled?
A. 2 mm
B. 3 mm
C. 4 mm
D. 6 mm
8. The British incisor classification was modified in 1992 by ?
A. Ballard and wayman
B. Ackerman and Proffit
C. Williams and Stephens
D. Katz
9. Which of the following is involved in fluid dynamic theory of orthodontic tooth movement?
A. Squeeze film effect
B. Halo effect
C. Roller coaster effect
D. Cart wheel effect
10. The syndrome involving bicoronal synostosis defect and characterized by proptosis, hypertelorism, down slanting palpebral fissures, broad and medially deviated thumbs is:
A. Apert syndrome
B. Crouzon syndrome
C. Pfeiffer syndrome
D. Muenke's syndrome

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

11. Signs of vertical growth rotation includes all except :
A. Long ramus
B. Prominent antegonial notch
C. Large gonial angle
D. Anterior inclination of condylar head
12. Which of the following is Indian innovation in the form of Cephalometric analysis and superimposition tool/
A. SmileCeph
B. QuickCeph
C. AutoCeph
D. A O Ceph
13. I point and I curve superimposition was proposed by :
A. Johnston et al
B. Standerwick et al
C. Richardson
D. McNamara
14. Which tool is used to locate musculoskeletally stable position of TMJ?
A. Leaf gauge
B. Korex gauge
C. Dontrix gauge
D. Boons gauge
15. While evaluating range of mandibular movements, lateral movement below which restricted movement is recorded is?
A. 6 mm
B. 8 mm
C. 10 mm
D. 12 mm
16. According to Burstone material stiffness number of Nitinol (when stainless steel is taken as 1.00) is :
A. 0.26
B. 0.34
C. 0.42
D. 0.50
17. The first self ligating system introduced was :
A. Ormco Edgelock
B. Russel lock
C. Orec speed
D. Adenta Time
18. Anatomic portion to the artistic portion of orthodontic study :
A. 3:1
B. 1:3
C. 2:1
D. 1:1
19. The success of SABG based on height of the interdental septum evaluated using :
A. Epworth scale
B. Goslon index
C. Bergland index
D. VAS
20. Corticotomy is not indicated in :
A. Severe crowding
B. Bimaxillary protrusion with a gummy smile
C. Maxillary transverse deficiency
D. Patient requiring high anchorage control
21. Class II elastics simultaneously used with upper incisor torquing is to prevent :
A. Bauschinger effect
B. Wagon wheel effect
C. Rollercoaster effect
D. Row boat effect

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

22. Energy absorbed by ionizing radiation per unit mass of is called :
A. Absorbed dose
B. Equivalent dose
C. Effective dose
D. Radiation dose
23. GTRV ratio for individual with normal growth pattern from age 8 to 16 years :
A.0.47
B.0.52
C.0.77
D.0.82
24. Usual site of failure during orthodontic debonding?
A. Adhesive and enamel surface
B. Between the adhesive and the bracket
C. Within the adhesive itself
D. Cannot be predicted
25. Head position for a cephalometric radiograph :
A. Natural head position
B. Positioned with ear rods
C. Mandibular plane parallel to floor
D. Cranial base parallel to floor
26. Cut off point for dental esthetic index :
A. 31
B. 20
C. 53
D.43
27. The ratio of skeletal to dental expansion obtained by rapid palatal expansion :
A.1:1
B.2:1
C.3:1
D. 4:1
28. Palatal fistula is operated if the size is more than :
A. 2mm
B. 3mm
C. 5mm
D. 10mm
29. For etching porcelain surfaces 9.6% HF gel is applied for :
A. 30 sec
B. 1 min
C. 2 min
D. 3 min
30. Jumping of bite concept was introduced by :
A. Anderson
B. Kingsley
C. Farrar
D. Emerson C Angell
31. Angle of convexity is :
A. SNA
B. SNB
C. N-A-Pog
D. ANB
32. Class III and pseudo class III malocclusion can be differentiated by :
A. Degree of cross bite
B. The presence of forward movement of the mandible in pseudo class III while closing
C. Molar relation and canine relationship
D. None of the above

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

33. Abnormal thick labial frenum results in :
A. Mid line diastema
B. Palatal inclination of the incisors
C. Labial inclination of the incisors
D. all of the above
34. The most anterior part of the bony chin is :
A. Gonion
B. Pogonion
C. Menton
D. Gnathion
35. Premature exfoliation of the primary canines indicates :
A. Arch length deficiency
B. Skeletal malocclusion
C. Arch length excess
D. None of the above
36. Maximum growth of skull is completed by the age of :
A. First 2 yrs
B. 2-4 yrs
C. 6-7 yrs
D. 9-10 yrs
37. Mid symphyseal suture closes by the age of :
A. 6 months
B. 18 months
C. 30 months
D. 5 years
38. The following dimension of the face at birth is close to the adult size :
A. Width
B. Depth
C. Height
D. All of the above
39. The teeth with development initiated after birth are :
A. Premolars, permanent second and third molars
B. Premolars and permanent molars
C. All permanent teeth
D. Only third molars
40. With flush-terminal plane, permanent first molars will erupt :
A. initially in class I relationship
B. initially in class II relationship
C. initially in end-to-end relationship
D. initially in class III relationship
41. The growth of bone is of endochondral type in the following except:
A. Ethmoid bone
B. Hyoid
C. Zygoma
D. Stapes
42. True about Leeway Space of Nancy is :
A. The amount of leeway space is about 2.5 mm in maxillary arch
B. The amount of leeway space is about 5.6 mm in mandibular arch
C. Both A&B are correct
D. Both A&B are incorrect
43. Ugly duckling stage:
A. Is seen in maxillary central incisor region between 12-13 years of age
B. Condition is seen during eruption of permanent canines
C. Type of malocclusion is not seen in lower arch
D. Path of eruption of mandibular canine is different from that of maxillary canines

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

44. Mandibular second premolar:
A. Is the tooth that shows greatest variation in eruption timing
B. Shows greatest variation in occlusal form next to maxillary IInd molar
C. Is the only premolar tooth that shows 3 cusps more frequently
D. Is the tooth in the mandibular arch that is most likely to be displaced due to arch size discrepancy
45. Following are "essential diagnostic criteria" according to Graber except:
A. Case history
B. Facial photographs
C. Periapical X-rays
D. Lateral cephalograms
46. Frankfort horizontal plane is formed by joining:
A. Porion and Orbitale
B. Porion and sella
C. Nasion and sella
D. Porion and nasion
47. An 11 year old boy complains of spacing between maxillary incisors, the appropriate treatment is with:
A. Hawley's appliance
B. Fixed appliance
C. No treatment
D. Oral screen
48. Frankle -IV is used for:
A. Class -I malocclusion
B. Class -II malocclusion
C. Class -III malocclusion
D. Bimaxillary protrusion
49. Triangular roots are all except:
A. Canines
B. Maxillary centrals
C. Maxillary laterals
D. Mandibular molars
50. Father of modern orthodontics is :
A. Anderson
B. Dewey
C. Edward H-angle
D. Lischer
51. The Cu-NiTi wire indicated in patients sensitive to pain is :
A. Type 1
B. Type 2
C. Type 3
D. Type 4
52. According to Ricketts and Engel(1979) commonly found arch forms are all except :
A. Normal
B. Ellipse
C. Tapered
D. Ovoid
53. In mushroom shaped archwire given by Fujita molar offset given is :
A. 1 mm
B. 2 mm
C. 3 mm
D. 4 mm
54. Force decay seen in natural elastic within first hour of use is :
A. 10%
B. 15%
C. 30%
D. 50%
55. For uprighting a canine with mesially inclined root, box loop is placed such that :
A. Mesial arm is kept short
B. Distal arm is kept short
C. Occlusal arm is kept short
D. All arms are kept equal

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

56. The drawbacks of Kesling tooth positioned include :
- A. Requirement of repeated adjustment at frequent intervals
 - B. Difficulty in speech and risk of TMJ problems
 - C. Weakening of the periodontal condition of teeth
 - D. None of the above
57. Adjunctive orthodontic treatment means :
- A. Tooth movement carried out to facilitate other dental procedures necessary to control disease and restore function
 - B. Orthodontic treatment which would take more than six months duration
 - C. Orthodontic surgical procedures carried out along with orthodontic therapy to correct dentofacial deformities
 - D. None of the above
58. To align the favourably impacted canine in the arch, the orthodontists should :
- A. Extract the canine and then transplant it in the proper alignment
 - B. Remove the overlying soft tissue and bony tissue and try to pull the canine with the help of elastics applied directly to crown
 - C. Remove the overlying soft tissue and retract it into proper alignment with the help of removable appliance with canine retractor
 - D. Remove the overlying soft tissue and bony tissue and directly bond the crown of impacted canine, winding the ligature wire around the attachment, the other end of which is tied to the removable or fixed orthodontic appliance
59. The role of maxillary obturator as an intra-oral prosthetic device in a cleft palate patient is :
- A. To provide a false roofing against which the child can suckle
 - B. To provide cross arch stability preventing the arch from collapsing
 - C. Both of the above
 - D. None of the above
60. Which of the following statement about the midline diastema **IS CORRECT?**
- A. Midline diastema is easy to correct and easy to retain
 - B. Midline diastema is easy to correct and difficult to retain
 - C. Midline diastema is difficult to correct and easy to retain
 - D. Midline diastema is difficult to correct and difficult to retain
61. Most commonly used appliance for the treatment of deep bite is :
- A. Removable Hawley's appliance with posterior bite plane
 - B. Removable Hawley's appliance with anterior bite plane
 - C. Removable Hawley's appliance with anterior and posterior bite plane
 - D. None of the above
62. Skeletal anterior cross bite due to retropositioned maxilla should be treated :
- A. Before termination of growth by using a protraction face mask
 - B. After termination of growth by using a protraction face mask
 - C. Before termination of growth by using head gear
 - D. After termination of growth by using head gear

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

63. Cephalometric examination of a patient having skeletal anterior open bite may reveal:
A. Downward and forward rotation of the mandible
B. Upward rotation of the mandible
C. Upward and forward rotation of the mandible
D. Upward and backward rotation of the mandible
64. A patient of 22 years of age with severe maxillary deficiency and mandibular prognathism should be best treated by :
A. Extraction of first premolar from both the upper and lower arches
B. Using high pull head gear and chin cup
C. Surgical maxillary advancement and mandibular set back
D. Fixed orthodontic therapy only
65. Which of the following is the least likely to influence the anteroposterior position of maxillary incisors?
A. Size of the apical base
B. Tongue buccinator mechanism
C. Being a concert clarinetist
D. Congenital absence of third molars
66. A radiograph of a 4 year old child reveals no evidence of calcification of mandibular second premolars. This means that :
A. These teeth may develop later
B. The child will probably never develop second premolars
C. Primary second molars should be extracted to allow permanent first molars to drift forward
D. It is too early in life to make final predictions concerning development of any permanent teeth
67. A patient came to the dentist with skeletal class III tendency and giving a history of cleft palate for which he had been operated at 3 years of age. For the correction of maxillary deficiency the dentist uses which of the following orthopaedic appliances?
A. Head gear
B. Face bow with head gear
C. A reverse pull head gear
D. All of the above
68. Growth of the maxilla in the vertical direction is due to :
A. Growth of the alveolus
B. Growth at sutures
C. Growth of the cranial base
D. Growth of the synchondrosis
69. The implant method of studying growth was proposed by :
A. Scammon
B. Borg
C. Belchier
D. Bjork
70. Oral and nasal capsule of functional growth is related to :
A. Periosteal matrix
B. Sutural matrix
C. Capsular matrix
D. None of the above
71. Late mesial shift is due to :
A. Closure of primate spaces
B. Eruption of first permanent molars
C. Related to end on – molar relation
D. Closure of Lee way space

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

72. Leeway space is :
A. 1.7 mm and greater in mandible
B. 1.7 mm and least in mandible
C. 3.4 mm and greater in mandible
D. 3.4 mm and least in mandible
73. Spaces in deciduous dentition is :
A. Physiological
B. Pathological
C. Incisal liability
D. None of above
74. Mesial step formation in deciduous dentition is indication of future :
A. Class II malocclusion
B. Class III malocclusion
C. Anterior crowding
D. Anterior cross bite
75. Incisal liability on an average in the maxillary arch is :
A. 3mm
B. 6mm
C. 4mm
D. 7.5mm
76. Tooth in the mandibular arch which is most likely to be displaced due to arch size discrepancy is?
A. First molar
B. Second molar
C. First premolar
D. Second premolar
77. Mouth breathing with enlarged adenoids and tonsils may be best described as :
A. Anatomic
B. Obstructive
C. Physiologic
D. Habitual
78. The abnormal swallowing pattern with the POOREST prognosis is :
A. Simple tongue thrust
B. Complex tongue thrust
C. Infantile swallow
D. Retained infantile swallow
79. A malocclusion is characterized by protrusion of maxilla, labioversion of maxillary incisors, deep overbite and overjet. These are typical characteristic of which malocclusion?
A. Class I
B. Class II Div 1
C. Class II Div 2
D. Class III
80. Bruxism bears which one of the following relationships to malocclusion?
A. Malocclusion is only cause of bruxism
B. Malocclusion may be the cause of bruxism
C. Correction of occlusal discrepancy always eliminate bruxism
D. None of above
81. Abnormal muscle activity results in :
A. Bruxism
B. Nail biting
C. Tongue thrusting
D. Thumb sucking
82. Cephalometric was introduced by :
A. Margolis and William Wilson in 1925
B. Tweed and Mills in 1940
C. Bjork and Sassouni in 1995
D. Broadbent and Hofrath in 1932

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

83. Which of the following CANNOT BE assessed with cephalometric radiograph?
A. Mandibular retrusion
B. Vertical facial disproportion
C. Incisor position & angulation
D. Adequacy of dental arch perimeter
84. Tweed's triangle denotes :
A. The position of maxilla and mandible to each other
B. The angle between the mandibular plane and mandibular incisors
C. Relationship between maxillary central and mandibular central incisor
D. Profile of an individual
85. Which of the following landmarks is present in the angle of mandible?
A. Gnathion
B. Gonion
C. Pogonion
D. Porion
86. The human temporomandibular joint function as a lever :
A. Class I
B. Class II
C. Class III
D. All of the above
87. Baume type II classification of primary dentition is characterized by :
A. Closed contacts between the teeth
B. Open contacts between the teeth
C. Proclined teeth
D. Retroclined teeth
88. The concept of "accelerated facemask therapy" was put forwarded by :
A. Hickham
B. Petit
C. Grummon
D. Delaire
89. Alteration in root shape before and after orthodontic treatment using radiographic modality was first proposed by:
A. Ketcham
B. Newman and Proffit
C. Kaley and Phillips
D. Malmgren and Lavender
90. In diagnostically driven robotic assisted orthodontics (DDRA) technology (e.g. suresmile) robots can bend the arch wire with an angular and linear accuracy of:
A. 1degree and 0.01mm
B. 0.1degree and 0.01mm
C. 1degree and 0.1mm
D. 2degree and 1mm
91. Extraoral elastics are anchored from facebow to headgear or from maxillary splint to facemask to apply heavy force. The light or training extraoral elastic used to apply force of :
A. 8 OZ
B. 12 OZ
C. 14 OZ
D. 16 OZ
92. Many procedures are used to accelerate the orthodontic treatment time. Among these which does not accelerate the orthodontic tooth movement :
A. PTH
B. Osteoprotegerin
C. MOP
D. Corticotomy

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

93. In general upto how many millimetres of overjet can be corrected by dentofacial orthopaedics appliances in growing children?
A. 0 to 7 mm
B. 5 to 7mm
C. 12 to 15mm
D. 15 to 18mm
94. Katz classification of malocclusion is based on :
A. Canine relation
B. Premolar relation
C. Molar relation
D. Incisor relation
95. Which of the following is not a 3-D printing technology based manufacturing process?
A. Selective laser sintering
B. Rapid prototyping
C. Fused deposition modelling
D. Polyjet photopolymerization
96. According to Moyers, development is :
A. Growth+ differentiation
B. Growth+ differentiation + translation
C. Differentiation + translation
D. Growth+ differentiation + transcription
97. Use of CBCT in orthodontics is recommended in all of the following except :
A. Impacted teeth
B. Facial asymmetry
C. Orthognathic surgery
D. Class II malocclusion
98. As far as etching pattern of enamel surface of tooth is concerned, which of the following etch pattern of enamel surface is/ are preferred?
A. Type I
B. Type II
C. Type III
D. Type I and II
99. All of the following are commercially available Co-Cr alloy for orthodontic archwire except :
A. Elgiloy
B. Azura
C. Multiphase
D. Dual flex
100. The relationship in change of position of upper lip and linear retraction of maxillary incisor is usually :
A. 1:1
B. 1:2
C. 1:3
D. 1:4
101. Sunday bite is most commonly seen in :
A. Class II division 1 malocclusion
B. Class II division 2 malocclusion
C. Class I type 2 malocclusion
D. Class I type 3 malocclusion
102. Which of the following is not a sagittal dysplasia indicator?
A. Beta angle
B. W angle
C. Yen angle
D. Omega angle
103. Cephalogram of a patient showing beta angle <27 degree, it indicates :
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite
104. Steiner's compromise is indicated for the camouflage treatment of :
A. Class I malocclusion
B. Class II malocclusion
C. Periodontal compromise cases
D. Open bite cases

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

105. Growth treatment response vector (GTRV) was given by :
A. Liou and Huwang
B. Nanda
C. Sugawara
D. Ngan
106. Steiner's mandibular plane is formed by joining following points :
A. Go- point D
B. Go-Pog
C. Go-Me
D. Go-Gn
107. Blue grass appliance was given by :
A. Grass B
B. Haskell
C. Chug Haw Kaw
D. George Faber
108. Characteristic feature of binder's syndrome is :
A. Maxillonasal dysplasia
B. Class II malocclusion
C. Scissor bite
D. Open bite
109. Hybrid functional appliance is used to address :
A. Sagittal component of asymmetry
B. Transverse component of asymmetry
C. Vertical component of asymmetry
D. Both transverse and vertical component
110. In cleft lip palate cases in infant orthodontics treatment should be started at the age of :
A. 3 - 6 week
B. 1 - 2 week
C. After 6 week
D. Just before surgery
111. For rapid canine retraction using PDL distraction, canine is distalize at the rate of :
A. 0.5 mm /day
B. 1 mm/day
C. 1.5mm/day
D. 0.25 mm/day
112. Trans-palatal arch (TPA) is :
A. Minimum anchorage device
B. Moderate anchorage device
C. Maximum anchorage device
D. It does not provide anchorage control
113. Which of the following index is not used to access outcome in cleft patients?
A. GOSLON yardstick
B. EUROCRAN index
C. Oslo index
D. Huddart Bodenham system
114. Tip edge bracket is developed by:
A. Robert Ricketts
B. Wick Alexander
C. Jaraback
D. Peter Kesling
115. From a clinical viewpoint, the major purpose of heating stainless steel archwire is :
A. To increase the elastic limit
B. To minimize breakage
C. To increase the resilience
D. To increase the yield strength
116. Who suggested the protocol of repetitive weekly alternate rapid maxillary expansion and constriction of the maxilla to disarticulate the maxilla for protraction?
A. Eric Liou
B. Peter Ngan
C. T Baccetti
D. V Delaire

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

117. Simultaneous use of class II elastics is recommended during labial torquing of upper incisors to prevent :
A. Roller coaster effect
B. Row boat effect
C. Bauschinger effect
D. Wagon wheel effect
118. Which of the following patients undergoing orthodontic treatment have an increased incidence of root resorption?
A. Uncontrolled diabetes
B. Asthma
C. Epilepsy
D. Rheumatoid arthritis
119. The concept of driftodontics was popularized by :
A. William Wilcko
B. Ronald Roth
C. Wick Alexander
D. Howard Lang
120. Which of the following copper NiTi variant would provide activation only after consuming hot food and beverages?
A. 15°C
B. 27°C
C. 35°C
D. 40°C
121. While using ICON index to assess treatment need, treatment is indicated if the summary score is :
A. 43
B. 36-40
C. 31-35
D. < 31
122. The optimal time to treat a child with Frankel's functional regulator is when the child is in:
A. Deciduous dentition
B. Early mixed dentition
C. Late mixed dentition
D. Permanent dentition
123. Which of the following is suitable condition for interproximal stripping :
A. Triangular incisors
B. Round premolars
C. Microdontic teeth
D. Screw driver shaped teeth
124. During development of foetus, the communication between the foregut and stomodeum is established at the end of :
A. Ninth week
B. Third week
C. Seventh week
D. Fifth week
125. According to Holdaway, the ratio of the distance of the lower incisors in front of the NB line and the distance of the bony chin in front of the NB line should be :
A. 1:1
B. 1:1.5
C. 1:2
D. 2:1
126. Masticatory performance of class III patients improve after orthognathic surgery; however, it takes upto _____ years to confirm a significant improvement in masticatory performance :
A. 3
B. 5
C. 7
D. 9

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

127. Which of the following is the most important reason for seeking orthodontic treatment?
A. To enhance dental appearance
B. To enhance facial appearance
C. To improve dental health
D. To enhance self-confidence
128. The recommended treatment cut off point of "dental aesthetic index" (developed by Cons et al, 1986) is :
A. 20
B. 25
C. 31
D. 36
129. The functional type of crossbite in which the midlines are centred in rest position but midline shift occurs in full occlusion, is called :
A. Laterocclusion
B. Laterognathy
C. Lateral occlusion
D. Lateroversion
130. Every millimetre of trans-palatal width increase in the premolar region produces a mm increase in available maxillary arch perimeter :
A. 0.5
B. 0.6
C. 0.7
D. 0.9
131. Following has abnormal lateral path of closure except :
A. Narrow maxilla
B. Class II div2
C. Class III
D. Class II div 1
132. "Obliteration Index" was developed by to quantify the percentage of ossification in the mid palatal suture :
A. Person etal
B. Bishara etal
C. Mc Namara etal
D. Issacson etal
133. Who was first to describe a technique of surgically assisted rapid maxillary expansion with mid-palatal splitting?
A. Brown
B. Angell
C. Hass
D. Heiss
134. "Guidance theory" for palatally placed or impacted maxillary canine was proposed by:
A. Miller and Bass
B. Hitching
C. Lappin
D. Broadbent
135. In "Index of Orthodontic Treatment Need" (IOTN) patient is placed between how many grades?
A. 3
B. 4
C. 5
D. 6
136. Idiopathic condylar resorption (ICR) is a relatively rare condition involving mainly female adolescents. In such a condition which of the following group/ category of malocclusion is usually seen?
A. Class I
B. Class II
C. Class III
D. Any one of the above

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

137. Hook's law is not applicable for which of the following orthodontic wire?
A. NiTi
B. A-NiTi
C. TMA
D. Stainless steel
138. The force decay rate of orthodontic polyurethane chain elastics is to the oral Ph :
A. Inversely proportional
B. Directly proportional
C. Partially related
D. Cannot predicted easily
139. The GOSLON (Great Ormond Street, London) Yardstick was developed as a clinical tool that categorized dental arch relationships into.....discrete categories :
A. 3
B. 4
C. 5
D. 6
140. In multifactorial inheritance, the likeness of parents and offsprings can be expressed by:
A. Standard error
B. Degree of freedom
C. Correlation coefficient
D. All of the above
141. Correlation between the age and weight of a child is best represented by :
A. Line diagram
B. Bar diagram
C. Histogram
D. Pi chart
142. The shape of "occlusal force curve" is similar to the positive half of which of the following curve?
A. Sine
B. Cosine
C. Tangent
D. Combination of above
143. Who among the following was first to propagate the long term retention using banded retainers?
A. Zachrison
B. Peck
C. Sheridan
D. Hagg
144. Which of the following is a sagittal dysplasia indicator?
A. ZEN angle
B. YEN angle
C. MEN angle
D. TEN angle
145. lateral Cephalogram of a patient showing Beta angle >35 degree, which is suggestive of
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite
146. Lateral Cephalogram of a patient showing W- angle <51 degree, which is suggestive of:
A. Class I malocclusion
B. Class II malocclusion
C. Class III malocclusion
D. Open bite

WST-DCI-PGD-ORTHOD-2018-P-2-SET-1-D

147. Concept of rapid canine retraction through distraction of the periodontal ligament was given by :
- A. Liou and Huwang
 - B. Nanda
 - C. Sugawara
 - D. Ngan
148. Commonest transposition in mandibular arch is between :
- A. Canine and first premolar
 - B. Canine and lateral incisor
 - C. Lateral and central incisor
 - D. Canine and central incisor
149. STb lingual bracket was developed by :
- A. Craven Karz
 - B. Giuseppe Scuzzo and Kyoto Takemoto
 - C. Silvia Geron and Kyoto Takemoto
 - D. Dirk Weichmann
150. Use of CBCT in orthodontics is recommended in all of the following except -
- A. Impacted teeth
 - B. Facial asymmetry
 - C. Orthognathic surgery
 - D. Class III malocclusion

KEY OF DCI-PGD-ORTHOD-2018-P-2-SET-1D

1	B	41	C	81	C	121	A
2	A	42	D	82	D	122	B
3	A	43	A	83	D	123	A
4	C	44	B	84	B	124	B
5	D	45	D	85	B	125	A
6	C	46	A	86	C	126	B
7	B	47	C	87	A	127	A
8	C	48	D	88	B	128	C
9	A	49	D	89	A	129	A
10	C	50	C	90	C	130	C
11	A	51	B	91	A	131	D
12	C	52	B	92	B	132	A
13	B	53	C	93	C	133	A
14	A	54	A	94	B	134	A
15	B	55	C	95	B	135	C
16	A	56	B	96	B	136	B
17	B	57	A	97	D	137	B
18	A	58	D	98	D	138	A
19	C	59	C	99	D	139	C
20	B	60	B	100	C	140	C
21	D	61	B	101	A	141	A
22	A	62	A	102	D	142	A
23	C	63	A	103	B	143	A
24	B	64	C	104	B	144	B
25	A	65	D	105	D	145	C
26	A	66	A	106	D	146	B
27	A	67	C	107	B	147	A
28	A	68	A	108	A	148	B
29	C	69	D	109	C	149	A
30	B	70	C	110	A	150	D
31	C	71	D	111	A		
32	B	72	C	112	B		
33	A	73	A	113	C		
34	B	74	B	114	D		
35	A	75	D	115	B		
36	C	76	B	116	A		
37	B	77	B	117	B		
38	A	78	D	118	B		
39	A	79	B	119	C		
40	C	80	B	120	D		