

BOOKLET NO.

1101

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

TBC : AKG-91117-MOD

TEST BOOKLET SERIES

A

Time Allowed : 2 Hours]

[Maximum Marks : 100

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
4. This Test Booklet contains 100 items (questions). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. No erasing/correction fluid is allowed.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers :**
THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, **one fourth (0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answer happen to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.
11. Use and carrying of Mobile Phone and Electronic Gadget is prohibited in Examination Hall.

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1. During fertilization in humans, there is :

- (A) Division of sex chromosomes
- (B) Formation of cells with 92 chromosomes
- (C) Division of gametes
- (D) Formation of a zygote

2. Down syndrome is known for :

- (A) Trisomy of chromosome 20
- (B) Production of monosomy situation
- (C) Facial enlargement and lengthened palate
- (D) Fissured tongue and delayed tooth eruption

3. The fetal stage, in comparison to the embryonic stage, is noted for :

- (A) Differentiation of major external structures
- (B) Induction of major internal structures
- (C) Growth and maturation
- (D) Extreme vulnerability to congenital defects

4. The last fontanelle to close is :

- (A) Posterior
- (B) Anterior
- (C) Sphenoid
- (D) Mastoid

5. The metopic suture closes by :
- (A) 18 months
 - (B) 6 years
 - (C) 2.5 years
 - (D) 6 months
6. Which of the following is *not* derived from deep cervical fascia ?
- (A) Parotidomasseteric fascia
 - (B) Temporoparietal fascia
 - (C) Carotid sheath
 - (D) Investing layer
7. The parotid gland is divided into a superficial and a deep lobe by the :
- (A) Retromandibular vein
 - (B) External carotid artery
 - (C) Facial nerve
 - (D) Origin of the parotid duct
8. The external nasal nerve is a branch of :
- (A) Infraorbital nerve
 - (B) Facial nerve
 - (C) Anterior ethmoid nerve
 - (D) Supratrochlear nerve
9. Sensory supply to the cornea is by :
- (A) Infratrochlear nerve
 - (B) Long ciliary nerve
 - (C) Supratrochlear nerve
 - (D) Lacrimal nerve
10. Which of the following structures is derived from the second pharyngeal arch ?
- (A) Anterior belly of digastric
 - (B) Mylohyoid
 - (C) Auricular muscles
 - (D) Anterior ligament of malleus

11. The cricothyroid muscle is innervated by :

- (A) Superior laryngeal nerve
- (B) Internal laryngeal nerve
- (C) Recurrent laryngeal nerve
- (D) Ansa cervicalis

12. Fluid replacement required in a burn patient can be estimated by the :

- (A) Penlington formula
- (B) Parkland formula
- (C) Henderson Hasselbalch equation
- (D) Holliday Segar formula

13. Which of the following is a disorder of platelet function ?

- (A) Thrombocytopenic purpura
- (B) Von Willebrand disease
- (C) Glanzmann thrombasthenia
- (D) Aplastic anemia

14. Which of the following is *not* a component of Virchow's triad ?

- (A) Endothelial injury
- (B) Stasis
- (C) Hypercoagulability
- (D) Vasoconstriction

15. Pneumothorax results in :

- (A) Cardiogenic shock
- (B) Neurogenic shock
- (C) Haemorrhagic shock
- (D) Obstructive shock

16. Loperamide is :
- (A) An antihypertensive
 - (B) An opioid
 - (C) A prokinetic
 - (D) An antimicrobial
17. Which of the following has no effect on blood glucose levels in the body ?
- (A) Epinephrine
 - (B) Glucagon
 - (C) Aldosterone
 - (D) Insulin
18. Which of the following best describes the mechanism of action of Ondansetron ?
- (A) Histamine receptor antagonism
 - (B) Proton pump inhibition
 - (C) Dopamine receptor antagonism
 - (D) 5-HT receptor modulation
19. The measure of the apparent space in the body available to contain a drug is called :
- (A) Clearance
 - (B) Volume of distribution
 - (C) Standard drug dose
 - (D) Bioavailability
20. Which of the following amino acids is *not* essential but is formed from an essential amino acid ?
- (A) Arginine
 - (B) Cystine
 - (C) Methionine
 - (D) Cysteine

21. Heme is synthesized from :

- (A) Lysine
- (B) Cysteine
- (C) Glycine
- (D) Glutamine

22. The first identified intracellular messenger is :

- (A) Calcium
- (B) cAMP
- (C) cGMP
- (D) Phosphatidylinositides

23. Which of the following is a dimorphic fungus ?

- (A) Candida
- (B) Histoplasma
- (C) Aspergillus
- (D) Rhizopus

24. Lowenstein Jensen medium is used to culture :

- (A) Acid fast bacilli
- (B) Fungi
- (C) E.coli
- (D) Corynebacterium

25. Fothergill's disease is associated with :

- (A) Facial nerve
- (B) Trigeminal nerve
- (C) Superficial temporal artery
- (D) Submandibular lymph nodes

26. Vasoconstriction is caused by :

- (A) Alpha 1 adrenergic stimulation
- (B) Beta 1 adrenergic stimulation
- (C) Alpha 2 adrenergic stimulation
- (D) Beta 2 adrenergic stimulation

27. Which of the following may be associated with hepatocellular carcinoma ?

- (A) Hepatitis E
- (B) Hepatitis C
- (C) Hepatitis A
- (D) Hepatitis D

28. Risk of transmission of HIV via needle prick is :

- (A) 30%
- (B) 3%
- (C) 0.3%
- (D) 13%

29. The passage of intact cells through the walls of capillaries is called :

- (A) Diaphoresis
- (B) Diapedesis
- (C) Pavementing
- (D) Exudation

30. Which is *not* a feature of malignancy ?

- (A) Increased mitotic figures
- (B) Hyperchromatism
- (C) High grade differentiation
- (D) Increased nuclear cytoplasmic ratio

31. The best way to store an alginate impression is :
- (A) Storing under a damp paper towel
 - (B) Storing under vacuum
 - (C) Storing in a bath of water at a temperature of 22°C
 - (D) The impression cannot be stored
32. The setting time of gypsum is accelerated by :
- (A) 2% aqueous K_2SO_4
 - (B) Increased W/P ratio
 - (C) Addition of sodium citrate
 - (D) Slower rate of spatulation
33. According to ADA specification No. 1, which of the following is *not* one of the properties required to assess the quality of dental amalgam ?
- (A) Compressive strength
 - (B) Creep
 - (C) Dimensional change
 - (D) Corrosion resistance
34. According to ADA specification No. 1, maximum allowable creep for dental amalgam is :
- (A) 2%
 - (B) 0.25%
 - (C) 1%
 - (D) 7%

35. Which of these materials does *not* form a true chemical bond with tooth structure ?

- (A) Silicate cement
- (B) Zinc polycarboxylate
- (C) ZOE
- (D) GIC

36. Provisional cementation in FDP treatment is done using :

- (A) Zinc phosphate cement
- (B) ZOE cement
- (C) GIC
- (D) Polycarboxylate cement

37. Water of reaction for Type II plaster is :

- (A) 45 ml
- (B) 25 ml
- (C) 18.6 ml
- (D) 35 ml

38. Minimata disease is associated with :

- (A) Lead
- (B) Copper
- (C) Mercury
- (D) Bismuth

39. pH of APF used for fluoridation is :

- (A) 2
- (B) 1.23
- (C) 3
- (D) 1

40. While comparing oral keratinised and non-keratinized stratified squamous epithelium, which of the following is *correct* ?

- (A) In both types of epithelium, the majority of keratinocyte mitotic divisions occur in the upper spinous cell layer
- (B) Keratohyaline granules are abundant in both keratinised and non-keratinized epithelium
- (C) Membrane coating granules are present in both keratinised and non-keratinized epithelium
- (D) Cytokeratin filaments are arranged in bundles in non-keratinized epithelium but are dispersed in keratinized epithelium

41. Submucosa is found most commonly in which type of oral mucosa ?

- (A) Lining mucosa
- (B) Hard palate mucosa
- (C) Specialised mucosa
- (D) Gingiva

42. Sequence of ducts leading from the secretory end piece to the oral cavity

is :

- (A) Striated, intercalated, excretory
- (B) Excretory, striated, intercalated
- (C) Intercalated, striated, excretory
- (D) Intercalated, excretory, striated

43. The articular disk :

- (A) is made of dense, fibrous tissue
- (B) contains no elastic fibres
- (C) does not contain blood vessels at its periphery
- (D) synovial cells cover its surface

44. The bell stage of tooth development :

- (A) begins when the root of the tooth begins to develop
- (B) is the first histologically visible stage of development
- (C) is the stage when cells begin to differentiate
- (D) is the stage following crown stage

45. In contrast to a K-type file, the H-file has :

- (A) Greater stress concentration on bending
- (B) More negative rake angle
- (C) Less cutting efficiency
- (D) Cutting only with a push stroke

46. It may take as long as for normal blood flow to return to the coronal pulp of a traumatized fully formed tooth.

- (A) 15 days
- (B) 9 months
- (C) 12 months
- (D) 30 days

47. The effects of desiccation on dental tissue are :

- (A) Pulpal necrosis
- (B) Aspiration of odontoblasts
- (C) No effects
- (D) Demineralisation of enamel

48. Obturation of a canal should not be done :

- (A) In the first visit
- (B) If the canal has been previously endodontically treated
- (C) If the canal is not dry
- (D) If accessory canals are present

49. Horizontal loss of supporting tissues exceeding $\frac{1}{3}$ of the width of the tooth, but not encompassing the total width of the furcation area is :

- (A) Degree 1
- (B) Degree 2
- (C) Degree 3
- (D) Degree 4

50. The following local anesthesia, the tip of the probe is forced through the supraalveolar connective tissue to make contact with the bone and the distance from the cemento-enamel junction to the bone level is assessed in mm. This process is called :

- (A) Probing
- (B) Sounding
- (C) Guided bone regeneration
- (D) Sensing

51. The gingivectomy procedure was originally described by :

- (A) Grant and Robinseck
- (B) Goldman
- (C) Lindhe
- (D) Kirkland

52. Upon application of heavy pressure forces against the tooth, the PDL fluid is squeezed out, tissues compressed, and immediate pain produced in a time period of :

- (A) <1 min
- (B) 3-5 min
- (C) 1-2 min
- (D) 5-10 min

53. According to the envelope of discrepancy, surgical treatment can correct :

- (A) A horizontal mandibular excess of 25 mm
- (B) A vertical maxillary deficit of 15 mm
- (C) A horizontal mandibular deficit of 20 mm
- (D) A horizontal maxillary deficit of 15 mm

54. Fixed orthodontic retention is *not* indicated in :

- (A) Maintenance of lower incisor position during late growth
- (B) Diastema maintenance
- (C) Maintenance of a pontic or implant space
- (D) Maxillary arch expansion

55. A cephalometric tracing representing the changes that are expected (desired) during treatment is called :

- (A) Prediction tracing
- (B) Visual Treatment Objective
- (C) Provisional tracing
- (D) Intermediate tracing

56. During the first stage of orthodontic treatment, the wires used are :

- (A) Ni-Ti
- (B) Stainless Steel
- (C) TMA
- (D) Copper wires

57. Primate spaces are present between :

- (A) Maxillary primary lateral incisor and canine
- (B) Maxillary primary canine and first molar
- (C) Mandibular primary lateral incisor and canine
- (D) Between maxillary primary central incisors

58. Flush terminal plane (according to Baume's classification) usually eventually becomes :

- (A) Molar Class I
- (B) Molar Class II
- (C) Molar Class III
- (D) Either Class II or Class III

59. According to the American Academy of Pediatric Dentistry (AAPD), in children younger than of age, any sign of smooth-surface caries is indicative of severe early childhood caries.

- (A) 2 years
- (B) 3 years
- (C) 5 years
- (D) 7 years

60. Between the age of 4 years and the eruption of first permanent molars, the sagittal dimension of the dental arches :

- (A) Increases by 10%
- (B) Increases by 10 mm
- (C) Remains unchanged
- (D) Increases

61. A technique for restoring young permanent teeth that require only minimal tooth preparation for caries removal but also have adjacent susceptible fissures :

- (A) Pit and fissure sealing
- (B) Preventive resin restoration
- (C) Minimal intervention dentistry
- (D) Odontoplasty

62. Ante's law is related to :

- (A) Bone remodelling in response to forces applied
- (B) Effect of root surface area on force distribution
- (C) Angulation of tooth roots for planning a prosthesis
- (D) Retention of a removable dental prosthesis

63. Which of the following is *not* a principle of flap design ?

- (A) The mucoperiosteum should be incised in a single stroke
- (B) The base of the flap should be \geq apex of the flap
- (C) The incision should be made while placing the blade parallel to the epithelial surface
- (D) The incision should be placed parallel to the natural skin creases

64. Ideal view to image the fractured zygomatic arch is :

- (A) Towne's view
- (B) Water's view
- (C) Orthopantomogram
- (D) Submentovertex view

65. Most common organism involved in the pathogenesis of alveolar osteitis :

- (A) Staphylococcus aureus
- (B) Treponema denticola
- (C) Actinomyces actinomycetem-comitans
- (D) E.coli

66. Primary rotation is used to extract :

- (A) Maxillary central incisors
- (B) Mandibular central incisors
- (C) Maxillary second premolar
- (D) Mandibular canine

67. The maximum dose for lignocaine without adrenaline is :

- (A) 7 mg/kg
- (B) 4.4 mg/kg
- (C) 10 mg/kg
- (D) 600 mg

68. Hilton's method is used for :
- (A) Sequestrectomy
 - (B) Oroantral fistula closure
 - (C) Incision and drainage of abscess
 - (D) Extraction of multiple teeth
69. Which of the following is *not* an acceptable treatment modality for TMJ ankylosis ?
- (A) Gap arthroplasty
 - (B) Coronoidectomy
 - (C) Interpositional arthroplasty
 - (D) Lateral arthroplasty
70. Which of the following best describes the Partsch I operation ?
- (A) Cyst enucleation
 - (B) Marsupialisation
 - (C) Marsupialisation followed by enucleation
 - (D) Enucleation followed by chemical cauterisation

71. Which of the following is *not* an indication for ORIF ?
- (A) Inability to achieve occlusion with closed reduction
 - (B) Infected comminuted mandibular fracture
 - (C) Mandibular angle fractures
 - (D) Medical comorbidity that precludes prolonged immobilisation
72. Wavelength for CO₂ laser is :
- (A) 850 nm
 - (B) 10600 nm
 - (C) 783 nm
 - (D) 990 nm

73. Which of the following is the most reproducible hinge position of the mandible ?

- (A) Centric occlusion
- (B) Centric relation
- (C) Maximum intercuspation
- (D) Mandibular rest position

74. During the first year after tooth extraction, the residual ridge resorption in the midsagittal plane is :

- (A) 2-3 mm for maxilla
- (B) 2-3 mm for mandible
- (C) 4-5 mm for maxilla
- (D) >10 mm for mandible

75. Order V of Atwood's classification of residual ridge resorption is :

- (A) Knife-edged ridge
- (B) Depressed ridge
- (C) Low, well-rounded ridge
- (D) High, well-rounded ridge

76. Jiffy dentures are :

- (A) Conventional immediate dentures
- (B) Interim immediate dentures
- (C) Implant supported dentures
- (D) Flexible dentures

77. Which of the following is *not* a component of an extracoronal retainer ?

- (A) Reciprocal clasp
- (B) Rest
- (C) Proximal plate
- (D) Abutment

78. Which of the following conditions arises due to cell-mediated immune injury ?

- (A) White sponge nevus
- (B) Oral lichen planus
- (C) Erythroplakia
- (D) Verrucous hyperplasia

79. Ghost images are seen in :

- (A) Histopathology of ghost cell tumours
- (B) Sialography
- (C) Orthopantomogram
- (D) Underexposed radiographs

80. Floating teeth are *not* seen radiographically in :

- (A) Cherubism
- (B) Mandibular intraosseous carcinoma
- (C) Chediak Higashi syndrome
- (D) Burkitt's lymphoma

81. Who is the author of *Antiquities of Chamba State*, Vol I, 1911 ?
- (A) J. Ph. Vogel
(B) William Moorcraft
(C) James Tod
(D) G.T. Vigne
82. Who founded the Nurpur princely state ?
- (A) Jagat Pal
(B) Jagan Pal
(C) Jeth Pal
(D) Jus Pal
83. Which raja of Sirmaur princely state shifted the capital of his state from Rajban to Kalsi ?
- (A) Udit Parkash
(B) Suraj Parkash
(C) Sumer Parkash
(D) Rattan Parkash
84. Which river's tributary is Nogli stream ?
- (A) Yamuna
(B) Beas
(C) Sutlej
(D) Tons
85. In which district of H.P. is Mukkila glacier ?
- (A) Lahaul-Spiti
(B) Chamba
(C) Kullu
(D) Shimla
86. Given below are the names of some temples and the names of places where they are located. Find the mismatch ?
- (A) Balasundri temple — Trilokpur (Sirmaur)
(B) Bhimakali temple — Sarahan (Rampur)
(C) Chintpurni temple — Badsar (Hamirpur)
(D) Durga temple — Kiari (Kotkhai)

87. Who was the first woman to represent H.P. in the Rajya Sabha ?
- (A) Mohinder Kaur
(B) Usha Malhotra
(C) Satyawati Dang
(D) Leela Devi Mahajan
88. According to H.P. Govt. notification of January 1981 which of the following is *not* included in the category of scheduled castes in H.P. ?
- (A) Lamba
(B) Banjara
(C) Turi
(D) Sansi
89. On which river is Renuka Dam Hydel Power Project ?
- (A) Yamuna
(B) Bata
(C) Giri
(D) Tons
90. Government of India has sanctioned four Model Schools for the educationally backward Blocks of Chamba District of H.P. Which one of them is in Pangri Block ?
- (A) Bharia Kothi
(B) Khushnagri
(C) Dand
(D) Hillour

91. What is the approximate length of India's border with China (Tibet) ?
- (A) 1597 kms
(B) 3488 kms
(C) 4388 kms
(D) 5485 kms
92. From which date were the recommendations of 7th Pay Commission implemented ?
- (A) January 01, 2016
(B) March 21, 2016
(C) April 01, 2016
(D) July 01, 2016
93. What award was given to flight purser Neerja Bhanot posthumously by the British House of Commons in July 2016 ?
- (A) Bharat Abhiman
(B) Bharat Maan
(C) Bharat Gaurav
(D) Bharat Shaan
94. Who headed the committee which recommended that the policy of detaining students should be reinstated beyond class V ?
- (A) Sudhir Mankad
(B) Shailja Chandra
(C) J.S. Rajput
(D) TSR Subramanian

95. Where was the first Indian Security Press located ?
- (A) Dewas
(B) Mysore
(C) Nasik
(D) Hoshangabad
96. Which country is hosting the 2018 Asian Games ?
- (A) Japan
(B) China
(C) Indonesia
(D) India
97. Who is the author of *Future Shock* ?
- (A) Elie Wiesel
(B) Ram Chander Guha
(C) Alvin Toffler
(D) Durant Will
98. What is the official language of Israel ?
- (A) English
(B) Latin
(C) Greek
(D) Hebrew
99. Which day is observed as International Day of Happiness ?
- (A) March, 20
(B) April, 01
(C) June, 21
(D) October, 02
100. Lunar eclipse occurs only on :
- (A) Amavasya (new moon)
(B) Purnima (full moon)
(C) Ashtami
(D) Ekadashi