

BKN
PROVISIONAL ANSWER KEY

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THE LINK FOR ONLINE OBJECTION SYSTEM WILL START FROM 01-02-2025; 10:00 AM ONWARDS

Instructions / સૂચન

Candidate must ensure compliance to the instructions mentioned below, else objections shall not be considered: -

- (1) Candidates have to pay fees of Rs.100/- for each objection. The fees can be paid from the link given herewith.
- (2) The Candidate will be able to submit objection only after payment of the fees. The generation of the receipt will only be considered as final submission.
- (3) The Candidate must retain the receipt of the payment of the fees. The fees, once paid, will not be refunded under any circumstances.
- (4) All the objections should be submitted through **ONLINE OBJECTION SUBMISSION SYSTEM** only. Physical or submission through any other means will not be considered.
- (5) All objections are to be submitted with reference to the Master Question Paper published with provisional answer key, published herewith on the website / online objection submission system. Objections should be sent referring to the Question No. & options of the Master Question Paper. Objections regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.
- (6) Objections and answers suggested by the candidate should be in compliance with the responses given by him in his answer sheet. Objections shall not be considered, in case, if responses given in the answer sheet /response sheet and submitted objections are differed.
- (7) Supportive document to the objection must be uploaded, without which objection will not be considered.

ઉમેદવારે નીચેની સૂચનાઓનું પાલન કરવાની તકેદારી રાખવી, અન્યથા વાંધા-સૂચન અંગે કરેલ રજૂઆતો ધ્યાને લેવાશે નહીં

- (1) ઉમેદવારે દરેક વાંધા દીઠ રૂપિયા ૧૦૦/- ફી ભરવાની રહેશે. જે ફી આ સાથે આપેલ લીંક ઉપરથી ભરી શકાશે.
- (2) ફી ભર્યા બાદ જ વાંધો સબમીટ થઈ શકશે. ફી ભર્યાની આખરી પહોંચ જ આખરી સબમીશન ગણાશે.
- (3) ફી ભર્યાની પહોંચ ઉમેદવારે સાચવી રાખવાની રહેશે. એક વાર ભરેલ ફી કોઈ પણ પરિસ્થિતિમાં પરત આપવામાં આવશે નહિ.
- (4) વાંધા ફક્ત **ઓનલાઇન ઓબ્જેક્શન સબમીશન સીસ્ટમ** દ્વારા જ સબમીટ કરવાના રહેશે. રૂબરૂ, ટપાલ અથવા ઈ-મેઇલ કે અન્ય કોઈ રીતે આયોગને મોકલવામાં આવેલ વાંધા ધ્યાને લેવામાં આવશે નહીં, જેની ખાસ નોંધ લેવી.
- (5) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ ન કરતાં, તમામ વાંધા-સૂચનો વેબસાઇટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર) ના પ્રશ્નક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા. માસ્ટર પ્રશ્નપત્રમાં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા ધ્યાને લેવામાં આવશે નહીં.
- (6) ઉમેદવારે પ્રશ્નના વિકલ્પ પર વાંધો રજૂ કરેલ છે અને વિકલ્પ રૂપે જે જવાબ સૂચવેલ છે એ જવાબ ઉમેદવારે પોતાની ઉત્તરવહીમાં આપેલ હોવો જોઈએ. ઉમેદવારે સૂચવેલ જવાબ અને ઉત્તરવહીનો જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા ધ્યાને લેવાશે નહીં.
- (7) વાંધા માટે સંદર્ભ જોડવો આવશ્યક છે, જેના વિના વાંધો ધ્યાને લેવામાં આવશે નહીં.

Website link for online objection submission system: https://www.formonline.co.in/GPSC_TRACK/SearchPage.aspx

1. Fill in the blank. Bregma is the name given to the junction of the _____.
 (A) Coronal and sagittal sutures
 (B) Frontal bone with the nasal bone
 (C) Lambdoid and sagittal sutures
 (D) Two parietal bones

2. Fill in the blank. Striated muscles of the tongue are derived from _____.
 (A) 1st pharyngeal swelling
 (B) Lateral lingual swelling
 (C) Occipital myotomes
 (D) Pteoptic myotome muscles

3. What is the highest point on the skull?
 (A) Pterion
 (B) Porion
 (C) Lambda
 (D) Vertex

4. What does Maxillary tuberosity give origin to?
 (A) Masseter
 (B) Buccinator
 (C) Medial pterygoid
 (D) Temporalis

5. What does Foramen Ovale transmit?
 (A) Maxillary nerve
 (B) Mandibular nerve
 (C) Ophthalmic nerve
 (D) Middle meningeal artery

6. The fracture of which bone is likely to produce CSF rhinorrhoea?
 (A) Cribriform plate of the ethmoid
 (B) Orbital part of the frontal
 (C) Rostrum of the sphenoid
 (D) Palatine process of the maxilla

7. Where can the foreign bodies from the oral cavity get lodged?
 (A) Fossa of Rosenmuller
 (B) Piriform fossa
 (C) Salpingopharyngeal fold
 (D) Vocal fold

8. Which of the following pathologically enlarged tonsils is called Adenoids?
(A) Palatine tonsils
 (B) Nasopharyngeal tonsils
(C) Tubal tonsils
(D) Lingual tonsils
9. Which of the following is purely serous?
 (A) Parotid gland
(B) Submandibular gland
(C) Sublingual gland
(D) Von Ebner's gland
10. Fill in the blank. The dental pulp is derived from _____.
(A) Ectoderm
(B) Mesoderm
(C) Neural crest cells
 (D) Mesenchyme
11. Fill in the blank.
The largest vein of the face is _____.
(A) Maxillary vein
 (B) Facial vein
(C) Angular vein
(D) Posterior articular vein
12. Fill in the blank. The facial artery is a branch of the _____.
(A) Internal carotid artery
 (B) External carotid artery
(C) Superficial temporal artery
(D) Maxillary artery
13. Fill in the blank. Bone better described as a "*bat with overstretched wings*" is _____.
(A) Ethmoid
 (B) Sphenoid
(C) Nasal
(D) Mandible
14. Which is the first sinus to develop?
 (A) Frontal sinus
(B) Maxillary sinus
(C) Sphenoid sinus
(D) Ethmoid sinus
15. Which is the safety muscle of the tongue?
(A) Hyoglossus

- (B) Genioglossus
 - (C) Palatoglossus
 - (D) Styloglossus
16. Which of the following helps in the release of neurotransmitters?
- (A) Na
 - (B) K
 - (C) Ca
 - (D) Cl
17. What do the Parietal cells of gastric mucosa secrete?
- (A) HCL
 - (B) Gastrin
 - (C) Mucin
 - (D) All of the above
18. Fill in the blank. Oxygen affinity decreases in _____.
- (A) Hypoxia
 - (B) Hypothermia
 - (C) HbF
 - (D) Increased pH
19. Fill in the blank. A decrease in the urinary output is called _____.
- (A) Dysuria
 - (B) Nocturia
 - (C) Oliguria
 - (D) Polyuria
20. What is referred to as the study of the electrical activity of the muscle?
- (A) EEG
 - (B) EMG
 - (C) Venn Diagram
 - (D) ECG
21. What is the normal cardiac cycle duration in humans?
- (A) 0.4 seconds
 - (B) 0.8 seconds
 - (C) 1.2 seconds
 - (D) 1.6 seconds
22. Which of the following is the Pain-producing substance?
- (A) Serotonin
 - (B) Substance P
 - (C) Histamine
 - (D) Acetylcholine
23. Which of the following coagulation factors is deficient in classical hemophilia?
- (A) VIII
 - (B) IX
 - (C) X

(D) XII

24. What is the lifespan of RBC?
(A) 12 days
(B) 90 days
(C) 120 days
(D) 30 days
25. Which Hormone is released during increased stress?
(A) Cortisol
(B) Thyroxine
(C) Growth Hormone
(D) Somatostatin
26. Which of the following is most essential for the maturation of erythrocytes?
(A) Vitamin B1
(B) Vitamin B2
(C) Vitamin B6
(D) Vitamin B12
27. Fill in the blank. Iron in haemoglobin exists as _____.
(A) Ferrous ion
(B) Ferric form
(C) Metallic
(D) Negative ion
28. Which of the following is the functional unit of the kidney?
(A) Nephron
(B) Glomerulus
(C) Collecting ducts
(D) Loops of Henle
29. What is Growth hormone also known as?
(A) Somatostatin
(B) Somatomedin
(C) Somatocrinin
(D) Somatotrophin
30. What is Serum?
(A) Plasma minus clotting factors
(B) Plasma minus fibrinogen
(C) Blood minus RBC
(D) Blood minus cellular elements
31. What are Albumin and globulin?
(A) Simple proteins
(B) Derived proteins
(C) Conjugated proteins
(D) Structural Proteins

32. Which of the following initiates the Digestion of protein?
(A) Amylase
(B) Sucrase
(C) Fructose
(D) Pepsin
33. Fill in the blank. Cane sugar is _____.
(A) Glucose
(B) Sucrose
(C) Fructose
(D) Maltose
34. Which of the following Vitamins also acts as a hormone?
(A) Vitamin D
(B) Vitamin A
(C) Vitamin B1
(D) Vitamin C
35. The deficiency of which of the following affects Collagen formation?
(A) Vitamin A
(B) Vitamin C
(C) Vitamin B12
(D) Vitamin D
36. Which is the first enzyme to rise in myocardial infarction?
(A) Creatine phosphokinase
(B) Lactate dehydrogenase
(C) SGOT
(D) Amylase
37. Fill in the Blank. Genes are _____.
(A) RNA
(B) DNA
(C) Lipoproteins
(D) Chromo Proteins
38. Fill in the Blank. Bile acids are formed from _____.
(A) Cholesterol
(B) Amino acids
(C) Bilirubin
(D) Lipoproteins
39. Fill in the Blank. Inactive precursors of enzymes are known as _____.
(A) Apoenzymes
(B) Coenzymes
(C) Proenzymes
(D) Holoenzymes
40. Which is the Milk curdling enzyme produced in the digestive tract?
(A) Rennin

- (B) Trypsin
(C) Pepsin
(D) Papain
41. Which of the following is termed as Physiological programmed cell death?
 (A) Apoptosis
(B) Lysis
(C) Autolysis
(D) Autopsy
42. Fill in the Blank. Edema occurs due to _____.
 (A) Increased capillary permeability
(B) Decreased capillary permeability
(C) Decreased interstitial fluid
(D) Decreased blood flow
43. Which of these factors inhibit wound healing?
(A) Infection
(B) Cortisol
(C) Foreign bodies
 (D) All of the above
44. Which of the following are risk factors for atherosclerosis?
(A) Smoking
(B) Hypertension
(C) Diabetes
 (D) All of the above
45. Fill in the Blank. The increase in the size of individual cells is referred to as _____.
 (A) Hypertrophy
(B) Hyperplasia
(C) Hypodontia
(D) Differentiation
46. Which of the following cells are most abundant in chronic inflammation?
 (A) Plasma cells
(B) Eosinophil
(C) Neutrophils
(D) Normoblasts
47. Which of the following factors gives strength in wound healing?
 (A) Collagen
(B) Blood supply
(C) Growth factors
(D) Hormones
48. Which is the most common site of thrombosis?
(A) Arteries

- (B) Veins
 - (C) Capillaries
 - (D) Heart
49. Fill in the Blank. Rodent ulcer is most commonly seen on _____.
- (A) Face below alaragus line
 - (B) Face above alaragus line
 - (C) Neck
 - (D) Anywhere on the skin
50. Fill in the Blank. In iron deficiency anemia there is _____.
- (A) Decrease in hemoglobin
 - (B) Increase in hemoglobin
 - (C) Increase in platelets
 - (D) Decrease in platelets
51. Fill in the Blank. Tetracycline is contraindicated in _____.
- (A) Children
 - (B) Pregnancy
 - (C) Renal failure
 - (D) All of the above
52. Fill in the Blank. Optic neuritis is a side effect of _____.
- (A) Rifampicin
 - (B) Dapsone
 - (C) Pyrazinamide
 - (D) Ethambutol
53. Which of the following agents are used in oral thrush?
- (A) Miconazole
 - (B) Clobetasol
 - (C) Clotrimazole
 - (D) Amoxicillin
54. Which of the following is a more potent and low-toxic drug against the herpes virus?
- (A) Zidovudine
 - (B) Acyclovir
 - (C) Nystatin
 - (D) Amantadine
55. Which of the following drugs cause ototoxicity and circumoral paresthesia occasionally?
- (A) Antileprotic drugs
 - (B) Antitubercular drug
 - (C) Streptomycin
 - (D) Chloramphenicol
56. Which of the following is an antidote for heparin?
- (A) Penicillinase

- (B) Protamine sulphate
(C) Prysulphate
(D) Potassium sulphate
57. What is the common side effect associated with all NSAID drugs?
(A) Drowsiness
(B) Gastric irritation
(C) Xerostomia
(D) Constipation
58. Which of the following anti-inflammatory drugs is a COX-2 inhibitor?
(A) Aspirin
(B) Ketoprofen
(C) Rofecoxib
(D) Sulidec
59. Fill in the Blank. Paracetamol is contraindicated in _____.
(A) Nephritis
(B) Chronic hepatitis
(C) Bleeding disorders
(D) Pregnancy
60. Fill in the Blank. Gingival hyperplasia is a common side effect of _____.
(A) Diphenylhydantoin
(B) Primidone
(C) Phenobarbitone
(D) Sodium valproate
61. Fill in the Blank. The shape of the affected tooth in Taurodontism tends to be _____.
(A) Rectangular
(B) Rhomboid
(C) Trapezoid
(D) Hexagonal
62. Fill in the Blank. Acute and chronic Osteomyelitis can be differentiated based on the duration of _____.
(A) 1 week
(B) 2 week
(C) 1 month
(D) 10 days
63. Where are the tissues preferentially involved by the herpes simplex virus derived
(A) Ectoderm
(B) Endoderm
(C) Mesoderm
(D) Endoderm and Mesoderm

64. Patients with which endocrinopathy seem to be very poor dental patients in context to co-

operation?

- (A) Hypothyroidism
- (B) Hypo parathyroidism
- (C) Hyperthyroidism
- (D) Hyper parathyroidism

65. When does the root dentin start turning translucent?

- (A) 20-30 years
- (B) 10-15 years
- (C) 40-50 years
- (D) 60-70 years

66. Fill in the Blank. In forensic dentistry, all come under comparative dental identification, except _____.

- (A) Oral autopsy
- (B) Obtaining dental records
- (C) Comparing post and ante mortem dental data
- (D) Identifying ethnic origin from teeth

67. Koplik spots are present on the buccal mucosa opposite to which tooth?

- (A) Molars
- (B) Incisors
- (C) Canines
- (D) Premolars

68. Where do apical cysts arise from?

- (A) Apical Abscess
- (B) Apical Granuloma
- (C) Cementum
- (D) Epithelial rests of Malassez

69. When does the calcification of permanent teeth begin?

- (A) 17 to 21 weeks intrauterine life
- (B) 28 to 32 weeks intrauterine life
- (C) Birth
- (D) 4 weeks after birth

70. A blue dome-shaped swelling develops in an individual after a history of trauma in the

lower lip. What is the clinical provisional diagnosis in this situation?

- (A) Calculi
- (B) Mucocele
- (C) Acute bacterial sialadenitis
- (D) Chronic bacterial sialadenitis

71. What is the Research that aims at finding a solution for an immediate problem facing a

society or an industrial/business organization called?

- (A) Descriptive research
- (B) Analytical research
- (C) Applied research
- (D) Fundamental research

72. What describes technically the effect noticed on the dependent variable as a result of extraneous variable(s)?
- (A) Experimental error
 - (B) Observer error
 - (C) Interviewer's error
 - (D) Instrumental error
73. According to Professor Fisher, which of the following is not among the three principles of experimental design?
- (A) The Principle of Replication
 - (B) The Principle of Randomization
 - (C) The Principle of Bias control
 - (D) The Principle of Local Control
74. Which among the following is an informal experimental design?
- (A) Randomized Block Design
 - (B) Before-and-After Control Design
 - (C) Latin Square Design
 - (D) Factorial Design
75. Which among the following is quantitative continuous data?
- (A) Gender
 - (B) Race
 - (C) Religion
 - (D) Weight
76. What is the mean number of days of confinement after delivery in the following series?

Days of Confinement (x)	No. of patients group (weights) (f)	Total days of each group (weights) (fx)
6	5	30
7	4	28
8	4	32
9	3	27
10	2	20
	18	137

- (A) 7.61
- (B) 10.42

- (C) 12.81
(D) 15.82
77. The mean height of 100 adults in a sample was 160 cm with a standard deviation of 10 cm. What is the coefficient of variation in this sample?
(A) 10.23%
(B) 8.33%
 (C) 6.25%
(D) 3.14%
78. The mean weight of 100 students in a class is 64 kg with a standard deviation of 4. What is the standard error of mean for this sample?
(A) 0.8
(B) 1.0
 (C) 0.5
(D) 2.0
79. The Variance for a sample of 100 individuals is 16. What is the standard deviation of the sample?
(A) 2
(B) 3
(C) 1
 (D) 4
80. Which among the following is a measure of the variability of a sample?
(A) Interquartile range
(B) Mean deviation
 (C) Standard error of mean
(D) Standard deviation
81. What is the usual range of diameters of soft-bristled adult toothbrushes?
(A) 0.010 – 0.012 inches
 (B) 0.007 – 0.009 inches
(C) 0.013 – 0.014 inches
(D) 0.015 – 0.016 inches
82. Which among the following is not a humectant used in toothpaste?
(A) Sorbitol
(B) Mannitol
 (C) Benzoic acid
(D) Propylene Glycol
83. Which is the first Over-the-counter (OTC) antiplaque rinse to be approved by the Food and Drug Administration (FDA) and American Dental Association (ADA)?
(A) Peridex
(B) Hexedine
(C) Betadine
 (D) Listerine
84. What is the recommended concentration of fluoride for school water fluoridation?

- (A) 0.7 ppm
 - (B) 1.2 ppm
 - (C) 1 ppm
 - (D) 4.5 ppm
85. What is the concentration of fluoride in the 0.05% neutral sodium fluoride mouthrinse mean for daily use?
- (A) Jordon
 - (B) Frostell
 - (C) Ostwald
 - (D) Dreizen
86. Who introduced a simpler method for measuring the buffering capacity of saliva using Dentobuff system in 1980?
- (A) Jordon
 - (B) Frostell
 - (C) Ostwald
 - (D) Dreizen
87. Who first proposed the use of electrical resistance for the detection of early carious lesions in 1951?
- (A) Plaitz
 - (B) Von de Fehr
 - (C) Kingman A
 - (D) Pincus
88. How much of fluoride is ingested if a child of 3-year-old weighing 15 kg swallows 90 ml of a 0.5% sodium Fluoride mouth rinse?
- (A) 1.3 mg/kg
 - (B) 4.4 mg/kg
 - (C) 8.2 mg/kg
 - (D) 10.2 mg/kg
89. Accepting the null hypothesis when there is difference between groups is called ? 90.
- (A) Type I error
 - (B) Type II error
 - (C) Type III error
 - (D) Type IV error
90. Which of the following is a live attenuated vaccine?
- (A) Hepatitis B
 - (B) Tetanus toxoid
 - (C) Diphtheria
 - (D) BCG
91. What should be the free residual concentration of chlorine in the drinking water after purification before it is supplied to the customers for use to prevent subsequent recontamination that may occur during storage and distribution?
- (A) 0.2 mg/L
 - (B) 1.0 mg/L

- (C) 0.5 mg/L
 (D) 1.2 mg/L
92. In which year, Learning about your oral health school dental program was developed by American Dental Association.
 (A) 1971
 (B) 1982
 (C) 1969
 (D) 1977
93. Which is the most common photoinitiator in dental materials which has a peak activity at around 470 nanometers?
 (A) Camphorquinone
 (B) BIS-GMA
 (C) Quartz
 (D) Cyanoacrylate
94. What is Tocopherol?
 (A) Vitamin A
 (B) Vitamin D
 (C) Vitamin E
 (D) Vitamin K
95. What is the full form of ASHA?
 (A) Allied Social Health Activist
 (B) Accredited Societal Health Activist
 (C) Accountable Social Health Activist
 (D) Accredited Social Health Activist
96. If a dentist unilaterally decides to extract a tooth and give a fixed partial denture instead of Root Canal treatment without giving the option of Root Canal Treatment to the patient, then, which principle of ethics is breached by the dentist in this situation?
 (A) Autonomy
 (B) Beneficence
 (C) Confidentiality
 (D) Veracity
97. In which type of embrasure, Pipe cleaner is used to clean the inter-proximal surfaces.
 (A) Type I
 (B) Type II
 (C) Type III
 (D) Type IV
98. Who introduced the Tooth Wear Index?
 (A) Horowitz
 (B) Smith and Knight
 (C) Clarkson JJ and O' Mullane D
 (D) Grainger RM
99. Which among the following hypothesis is closely related to plaque removal using a

- manual toothbrush?
- (A) Ecological plaque hypothesis
 - (B) Specific plaque hypothesis
 - (C) Non-specific plaque hypothesis
 - (D) Microbial plaque hypothesis
100. Who proposed the trans theoretical model of behavior management?
- (A) Wallston, Wallston and Kaplan
 - (B) Albert Bandura and coworkers
 - (C) BF Skinner and coworkers
 - (D) Prochaska, Norcross, DiClemente
101. Who first mooted the concept of health centre in 1920?
- (A) C.E.A Winslow
 - (B) Lord Dawson
 - (C) John Ryle
 - (D) Alfred Grotjahn
102. Who gave the report on "*The Sanitary conditions of the Labouring Population in Great Britain*", which subsequently led to the "*Great Sanitary Awakening*".
- (A) Edwin Chadwick
 - (B) Johanna Peter Frank
 - (C) Lemuel Shattuck
 - (D) John Snow
103. Who presented the gloomy and the challenge of inequalities in health in his book "*Health and the Developing World*".
- (A) Professor Crew
 - (B) Walter Reed
 - (C) John Hunter
 - (D) John Bryant
104. Which among the following concepts of health has the basis in the germ theory of disease, which dominated the medical thought at the turn of the 20th century?
- (A) Biomedical Concept
 - (B) Ecological Concept
 - (C) Psychosocial Concept
 - (D) Holistic Concept
105. Which among the following is not an indicator in the Physical Quality of Life Index (PQLI)?
- (A) Infant Mortality
 - (B) Life expectancy at age one
 - (C) Per Capita Income
 - (D) Literacy

106. Which among the following is not an indicator in the Human Development Index (HDI)?
- (A) Infant Mortality
 - (B) Life expectancy at birth
 - (C) GNI Per Capita
 - (D) Mean years of Schooling and Expected years of schooling
107. Which of the following measures is based on life expectancy at birth but includes an adjustment for time spent in poor health?
- (A) Quality-Adjusted Life Years (QALY)
 - (B) Health-Adjusted Life Expectancy (HALE)
 - (C) Disability-Free Life Expectancy (DFLE)
 - (D) Disability-Adjusted Life Years (DALY)
108. Who proposed the "*Web of Causation*" as a model of disease causation in their book "*Epidemiologic Principles and Methods*"?
- (A) Pettenkofer and Munich
 - (B) Louis Pasteur and Robert Koch
 - (C) MacMohan and Pugh
 - (D) Leavell and Clark
109. Which among the following indicates the ability of an infectious agent to invade and multiply (produce infection) in a host?
- (A) Infectivity
 - (B) Pathogenicity
 - (C) Virulence
 - (D) Communicability
110. In the Iceberg of disease, what represents the floating tip of the iceberg?
- (A) Latent disease
 - (B) Inapparent disease
 - (C) Presymptomatic disease
 - (D) Symptomatic disease
111. Which level of prevention refers to the "*prevention of the emergence or development of risk factors in countries or population groups in which they have not yet appeared*"?
- (A) Primordial prevention
 - (B) Primary prevention
 - (C) Secondary prevention
 - (D) Tertiary prevention
112. In the concept of disability, which among the following is defined as "*any loss or abnormality of psychological, physiological or anatomical structure or function*"?
- (A) Disease
 - (B) Impairment
 - (C) Disability
 - (D) Handicap

113. Which of the following types of rehabilitation is “*restoration of the personal dignity and confidence*”?
- (A) Medical rehabilitation
 - (B) Vocational rehabilitation
 - (C) Social rehabilitation
 - (D) Psychological rehabilitation
114. The concentration of Chlorhexidine mouth rinse for antiplaque efficacy is
- (A) 0.02 percent
 - (B) 0.2 percent
 - (C) 0.002 percent
 - (D) 2 percent
115. Which among the following is not a common component in most definitions of epidemiology?
- (A) History of disease
 - (B) Disease frequency
 - (C) Distribution of the disease
 - (D) Determinants of disease
116. In which among the following tools for measurement of disease, the numerator is not a component of the denominator?
- (A) Rate
 - (B) Ratio
 - (C) Proportion
 - (D) Crude rates
117. If there had been 500 new cases of an illness in a population of 30,000 in a year, what is the incidence rate of the disease?
- (A) 20.2 per 1000 per year
 - (B) 19.8 per 1000 per year
 - (C) 16.7 per 1000 per year
 - (D) 12.5 per 1000 per year
118. Assuming a stable condition, if the incidence of a disease is 10 cases per 1000 population per year and the mean duration of illness is 5 years, what is the prevalence of the disease?
- (A) 8%
 - (B) 9%
 - (C) 4%
 - (D) 5%
119. Which among the following is not a feature of a point-source epidemic?
- (A) The epidemic usually shows a gradual rise and tails off over a much longer period.
 - (B) The epidemic curve rises and falls rapidly with no secondary waves.
 - (C) The epidemic tends to be explosive with clustering of cases within a narrow time interval.
 - (D) All cases develop within one incubation period of the disease.
120. What refers to the changes in the occurrence of a disease (i.e a progressive increase or

decrease) over a long period of time, generally several years or decades?

- (A) Seasonal trend
- (B) Cyclic trend
- (C) Secular trend
- (D) Periodic fluctuation

121. What is the exposure rate among cases for the following results of a case-control study on the association between smoking and lung cancer?

	Cases (with lung cancer)	Controls (without lung cancer)	Total
Smokers (5 cigarette s per day)	33	55	88
Non- smokers	02	27	29
Total	35	82	117

- (A) 82.3%
- (B) 90.5%
- (C) 94.2%
- (D) 78.5%

122. What is the odds ratio for the following results of a case-control study on the association between smoking and lung cancer?

	Cases (with lung cancer)	Controls (without lung cancer)	Total
Smokers (5 cigarette s per day)	33	55	88
Non- smokers	02	27	29
Total	35	82	117

- (A) 8.1
- (B) 4.2
- (C) 6.8
- (D) 10.9

123. Matching in case-control studies is done to reduce which type of bias?

- (A) Memory or Recall Bias
- (B) Selection Bias

- (C) Berksonian Bias
(D) Bias due to Confounding
124. The intervention of chair side dental health education falls in to :
(A) Downstream Intervention
(B) Upstream Intervention
(C) Mid stream intervention
(D) Lateral stream intervention
125. Cariogram is developed to asses.
(A) Risk of developing new caries in the future
(B) Past dental caries experience
(C) Incipient carious lesions
(D) Non cavitated carious lesions
126. Which of the following criteria for establishing the causal association between a suspected cause and outcome asks, "*Does the suspected cause precede the observed effect*"?
(A) Strength of Association
(B) Temporal Association
(C) Specificity of the Association
(D) Consistency of Association
127. Which criteria for establishing the causal association between a suspected cause and outcome implies a "*one-to-one*" relationship between the cause and effect?
(A) Biological plausibility
(B) Coherence of Association
(C) Temporal Association
(D) Specificity of the Association
128. What is the concentration of Fluoride used in weekly fluoride school mouth rinse program
(A) 0.2 percent
(B) 0.12 percent
(C) 1.23%
(D) 0.05 percent
129. To which category does the Waste Sharps fall in to?
(A) Category no. 1
(B) Category no.2
(C) Category no.3
(D) Category no. 4
130. Delta Dental plan which is a payment plan was introduced in the year?
(A) 1939
(B) 1969
(C) 1973
(D) 1981
131. What refers to the infection originating in a patient while in a hospital or other health

- care facility?
- (A) Nosocomial infection
 - (B) Opportunistic infection
 - (C) Iatrogenic disease
 - (D) Zoonotic disease
132. In epidemiologic terminology, what refers to the first case to come to the attention of the investigator?
- (A) Suspected case
 - (B) Primary case
 - (C) Secondary case
 - (D) Index case
133. In which year did the World Health Organization launch a global immunization programme, known as Expanded Programme on Immunization (EPI) to protect all children of the world against six vaccine-preventable diseases?
- (A) 1964
 - (B) 1974
 - (C) 1984
 - (D) 1968
134. What does “*the ability of a diagnostic test to identify correctly all those who do not have the disease*” indicate?
- (A) Sensitivity
 - (B) Specificity
 - (C) Reliability
 - (D) Validity

135.

The results of a screening test using a new diagnostic test are given in the following contingency table. What is the sensitivity of the new diagnostic test?

Screening test results	Actual Diagnosis		Total
	Diseased	Not Diseased	
Positive	40	20	60
Negative	100	9840	9940
Total	140	9860	10000

- (A) 28.6%
 - (B) 48.8%
 - (C) 92.4%
 - (D) 95.6%
136. What refers to the amount of previously unrecognized disease that is diagnosed as a result of the screening effort?
- (A) Sensitivity
 - (B) Specificity
 - (C) Yield
 - (D) Predictive Value of a positive test

137. In which year did the Government of India launch the Revised National Tuberculosis Control Programme (RNTCP) with the adoption of the Directly Observed Treatment Short-Course (DOTS) strategy?
- (A) 1968
 - (B) 1978
 - (C) 1986
 - (D) 1993
138. National AIDS Control Programme in India was launched in which year?
- (A) 1975
 - (B) 1987
 - (C) 1997
 - (D) 1965
139. When did the Government of India launch the National Tobacco Control Program in India to facilitate the implementation of Tobacco control laws?
- (A) 2001-02
 - (B) 1998-99
 - (C) 2007-08
 - (D) 2010-11
140. Which among the following is a poly-unsaturated fatty acid?
- (A) Lauric acid
 - (B) Linoleic acid
 - (C) Palmitic acid
 - (D) Stearic acid
141. Identify the water-soluble vitamin among the following vitamins.
- (A) Vitamin A
 - (B) Vitamin C
 - (C) Vitamin D
 - (D) Vitamin K
142. Which nutritional deficiency disorder occurs due to a deficiency of Thiamine?
- (A) Beriberi
 - (B) Angular stomatitis
 - (C) Pellagra
 - (D) Megaloblastic anaemia
143. The standards for uniform reporting quality of meta analysis is
- (A) CONSORT
 - (B) MOOSE
 - (C) STROBE
 - (D) QUORUM
144. Which theory of behavior measures the extent to which individuals believe that their health is influenced by their own behavior or by external causes.
- (A) Theory of reasoned action
 - (B) Health belief model

- (C) Multidimensional Health Locus of Control
 (D) Theory of planned behaviour
145. What does it refer to if representatives of three different generations related to each other by direct descent live together in a household?
 (A) Nuclear family
 (B) Three generation family
 (C) Joint family
 (D) Extended family
146. Which index was used in the National Family Health Survey – III as an index of the economic status of the households?
 (A) Human Development Index
 (B) Human Poverty Index
 (C) Wealth Index
 (D) Sullivan's Index
147. What is defined as "*the application of scientific methods of investigation to the study of complex human organizations and services*"?
 (A) Basic Research
 (B) Applied Research
 (C) Clinical Research
 (D) Operational Research
148. What does the "*Gross income generated within a country*" refer to?
 (A) Per Capita Income
 (B) Gross Domestic Product (GDP)
 (C) Net National Product (NNP)
 (D) Net Domestic Product (NDP)
149. A scale in which the numbers used in the scale purport to have a mathematical relation to each other and the scale has the true zero.
 (A) Nominal
 (B) Ratio
 (C) Ordinal
 (D) Interval
150. Where were the slow sand filters used for the first time in 1804 for purification of water?
 (A) Scotland
 (B) Norway
 (C) USA
 (D) Denmark
151. What is the maximum permissible level of Chlorides in drinking water as per the 2011 guidelines for drinking water quality recommended by World Health Organization (WHO).
 (A) 100 mg/litre
 (B) 500 mg/litre

- (C) 50 mg/litre
- (D) 600 mg/litre

152. In which of the following indicators of air pollution, the stain is measured by photoelectric meter after a known volume of air is filtered through a white filter paper under specified conditions?
- (A) Sulphur dioxide
 - (B) Soiling Index
 - (C) Air Pollution Index
 - (D) Grit and Dust Measurement
153. Animal waste is categorized into which category of bio-medical waste according to Bio-Medical Waste (Management and Handling) Rule 1998 of India.
- (A) Category No. 1
 - (B) Category No. 2
 - (C) Category No. 4
 - (D) Category No. 5
154. Which type of study assesses mortality rates in different areas with various levels of fine particulate air pollution is
- (A) Ecological study
 - (B) Cross sectional study
 - (C) Longitudinal study
 - (D) Pathfinder study
155. The first regular census in India was taken in which year?
- (A) 1956
 - (B) 1948
 - (C) 1881
 - (D) 1981
156. Which among the following is a cultural barrier to health communication?
- (A) Difficulty in expression
 - (B) Comprehension difficulties
 - (C) Illiteracy
 - (D) Congestion
157. Which among the following health education approach is also called as "*Managed Prevention*"?
- (A) Regulatory approach
 - (B) Services approach
 - (C) Health education approach
 - (D) Primary healthcare approach
158. Which among the following is not a feature of health education?
- (A) Knowledge and skills actively acquired
 - (B) Makes people think for themselves
 - (C) Disciplines primitive desires
 - (D) Appeals to emotion

159. Which among the following is a primary motive?
(A) Love
(B) Reward
 (C) Hunger
(D) Recognition
160. In which year did Government of India replace Planning Commission with NITI (National Institution for Transforming India) Aayog?
(A) 2013
(B) 2010
(C) 2018
 (D) 2015
161. Which committee for health planning in India recommended that “*the Basic health workers, Malaria Surveillance workers, Vaccinators, Health Education Assistants (Trachoma), and the Family Planning Health Assistants should be replaced by Male Health Workers*”?
(A) Bhore Committee
(B) Mudaliar Committee
(C) Mukerji Committee
 (D) Kartar Singh Committee
162. Psychoanalytic theory of Child Psychology was given by
 (A) Sigmund Freud
(B) Piaget
(C) Erik Erikson
(D) Abraham Maslow
163. Which among the following is not an element of evaluation?
(A) Relevance
(B) Adequacy
 (C) Reliability
(D) Efficiency
164. In general, one sub-centre is established for what population size in India?
(A) 3000
 (B) 5000
(C) 3500
(D) 20000
165. Which health scheme was previously known as “*Contributory Health Service Scheme*”?
 (A) Central Government Health Scheme
(B) Defense Medical Services
(C) Health Care of Railway Employees
(D) Employees State Insurance Scheme
166. Which among the following is not a function of Voluntary Health Agencies?
(A) Supplementing the work of Government agencies
(B) Pioneering

- (C) Education
- (D) Managing health insurance schemes

167. When was the Indian Red Cross Society established?
- (A) 1930
 - (B) 1940
 - (C) 1920
 - (D) 1950
168. Which of the following is considered as the World's first international health agency?
- (A) Office International D'HygienePublique
 - (B) The Health Organization of the League of Nations
 - (C) United Nations Relief and Rehabilitation Administration
 - (D) Pan American Sanitary Bureau
169. Where is the headquarters of the World Health Organization's Regional Organization for the Europe?
- (A) Alexandria
 - (B) Copenhagen
 - (C) Manila
 - (D) Washington D.C.
170. Which model of oral health education provides a framework for not only delivering health education programmes but also evaluating interventions?
- (A) Communication behavior change model
 - (B) Theory of reasoned action
 - (C) Precede-Proceed model
 - (D) Theory of planned behaviour
171. Who conducted the study on twins where a greater resemblance in caries experience was found among identical twins than between fraternal twins, while unrelated pairs of children showed less resemblance than either type of twins?
- (A) Henry Klein
 - (B) Corrole E Plamer
 - (C) Knutsson JW
 - (D) Mansbridge
172. Which among the following is a caries promoting trace element?
- (A) Fluorine
 - (B) Phosphorus
 - (C) Selenium
 - (D) Molybdenum
173. Who made the first reference to the prophylactic role of fluoride in 1874 in Memorabilia - a monthly publication in German for rational physicians.
- (A) Erhad
 - (B) Denninger
 - (C) Pindborg
 - (D) Morozzo

174. Who made the first systematic endeavour to investigate "*Mottled Enamel*" in 1902?
(A) El Paso County Odontological Society
(B) New York State Dental Society
(C) American Dental Association
(D) Colorado Springs State Dental Society
175. In which year "*sodium fluoride was added to the Grand Rapids water supply*", where for the first time a permissible quantity of a beneficial dietary nutrient was added to the communal water supply?"
(A) 1938
(B) 1945
(C) 1936
(D) 1934
176. Which among the following was developed in 1968 for defluoridation of water, which is nothing but "*sulphonated coal using aluminium solution as a reagent*"?
(A) Defluoron -2
(B) Defluoron -1
(C) Activated Alumina
(D) Activated Carbon
177. Who first mentioned about the fluoridation of milk as a possible method of systemic use in 1955?
(A) Wespi
(B) Muhleman
(C) Mejia
(D) Ziegler
178. What is the recommended frequency of the application for professionally applied 8% Stannous fluoride solution.
(A) Once a year
(B) Twice a year
(C) Thrice a year
(D) Four times a year
179. The dissolution of which of the following compound produces metallic taste in the mouth following the application of Muhler's solution.
(A) Calcoum Fluoride
(B) Tin Hydroxy Phosphate
(C) Tin Tri-Fluoro phosphate
(D) Calcium Tri-Fluorostannate
180. What is the pH of Acidulated Phosphate Fluoride gel used for professional application that is prepared by adding the gelling agents like methylcellulose or hydroxyethyl cellulose.
(A) 3
(B) 3.5
(C) 4.5

(D) 5.5

181. How much of active fluoride will be available following application of Fluoroprotector fluoride varnish?
- (A) 9000 ppm
 - (B) 13500 ppm
 - (C) 7000 ppm
 - (D) 22600 ppm
182. What is the range of doses which is regarded as Certainly Lethal Dose for fluoride?
- (A) 5 -10 mg per Kilogram body weight
 - (B) 15 -20 mg per Kilogram body weight
 - (C) 8 -16 mg per Kilogram body weight
 - (D) 32 -64 mg per Kilogram body weight
183. Who developed the Fluoride ion specific electrode, which was one of the most significant advances in the determination of fluoride?
- (A) Singer and Armstrong
 - (B) Taves and Venkateswarlu
 - (C) Frant and Ross
 - (D) Mckay and Trendley H Dean
184. Who developed the Tooth Surface Fluorosis Index?
- (A) Horowitz HS
 - (B) Manji
 - (C) Pendrys DG
 - (D) Trendley H Dean
185. What type of health economics are used to assess the benefits of two or more health care technologies in which the two being compared are assumed to be equivalent?
- (A) Cost minimization analysis
 - (B) Cost Effective analysis
 - (C) Cost Utility Analysis
 - (D) Cost benefit analysis
186. Which behavioral theory states that an “*individual’s behaviors are primarily determined by intentions to perform the behavior, and these intentions are determined by attitudes and beliefs about the behavior*”?
- (A) Health Belief Model
 - (B) Social Cognitive Theory
 - (C) Social Ecological Theory
 - (D) Theory of Reasoned Action
187. What is code 2 in “*Turesky-Gilmore_glickman modification of Quigley-Hein plaque index scoring system*”?
- (A) Separate flecks of plaque at the cervical margin of the tooth
 - (B) A thin continuous band of plaque (up to 1 mm) at the cervical margin of the tooth
 - (C) A band of plaque wider than 1 mm but covering less than one-third of the crown of the tooth
 - (D) Plaque covering at least one-third but less than two-thirds of the crown of the tooth

188. Which is not an index surface for examination in the Oral Hygiene Index – Simplified?
- (A) Buccal Surface of Maxillary Right First Permanent Molar
 - (B) Labial Surface of Maxillary Right Central Incisor
 - (C) Lingual surface of Mandibular Left Central Incisor
 - (D) Lingual Surface of Mandibular Left First Permanent Molar
189. Which among the following is not an essential element of Health Maintenance Organizations?
- (A) A system of financing and post-payment
 - (B) A Managing Organization
 - (C) A Delivery System
 - (D) A system of financing and pre-payment.
190. When was the Dentist Act enacted in India?
- (A) 29th March 1948
 - (B) 31st May 1949
 - (C) 1st December 1948
 - (D) 31st May 1949
191. Where did T A Hunter start the first training school for dental nurses in 1921?
- (A) Wellington, New Zealand
 - (B) Hamilton, New Zealand
 - (C) Auckland, New Zealand
 - (D) Hastings, New Zealand
192. Who proposed the proteolytic theory to explain the etiology of dental caries?
- (A) Parmly in 1819
 - (B) Gottlieb in 1944
 - (C) Schatz in 1955
 - (D) Miller in 1890
193. A viral disease caused by drinking contaminated water is
- (A) Poliomyelitis
 - (B) Amoebiasis
 - (C) Giardiasis
 - (D) Weils Disease
194. Which of the following toothbrushing methods uses a vertical sweeping motion of the brush?
- (A) Modified Bass method
 - (B) Bass method
 - (C) Fones method
 - (D) Charters method
195. Who reported the first successful use of Bisphenol A -Glycidyl methacrylate-based sealant in the late 1960s?
- (A) Bodecker
 - (B) Buonocore

- (C) Wilson
- (D) Hyatt

196. Who pioneered the concept of "*Preventive Resin Restoration*"?
- (A) Joe E Frencken
 - (B) Newmann MG
 - (C) Norman O Harris
 - (D) Simonsen
197. What is the maximum level of exposure to Mercury in the air that is considered safe?
- (A) 90 $\mu\text{g}/\text{cc}$ of air
 - (B) 100 $\mu\text{g}/\text{cc}$ of air
 - (C) 50 $\mu\text{g}/\text{cc}$ of air
 - (D) 80 $\mu\text{g}/\text{cc}$ of air
198. What is considered the critical pH of plaque that is detrimental to the tooth surface following a glucose rinse according to Stephan's curve?
- (A) 5.4
 - (B) 5.2
 - (C) 5.9
 - (D) 4.8
199. The tip of the root is broken during the extraction of a tooth by a dentist. However, the dentist considers that the root tip will get resorbed on its own and will not cause any harm in the future. The dentist does not tell this to the patient. Which Principle of ethics is violated here?
- (A) Justice
 - (B) Autonomy
 - (C) Veracity
 - (D) Non-maleficence
200. What is the third step in Harron's model as a tool for resolving ethical problems?
- (A) Analyzing
 - (B) Justifying
 - (C) Weighing
 - (D) Evaluating