

## BDJ

### PROVISIONAL ANSWER KEY (CBRT)

Name of the post	TB and Chest Disease Specialist, ESIS, Class-1
Advertisement No.	1/2022-23
Preliminary Test held on	11-09-2022
Question No.	01-200
Publish Date	12-09-2022

Last Date to Send Suggestion(s) 20-09-2022

THE LINK FOR ONLINE OBJECTION SYSTEM WILL START FROM 14-09-2022; 04:00 PM ONWARDS

### Instructions / સૂચન

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

- (1) All the suggestion should be submitted through **ONLINE OBJECTION SUBMISSION SYSTEM** only. Physical submission of suggestions will not be considered.
- (2) Question wise suggestion to be submitted in the prescribed format (proforma) published on the website / online objection submission system.
- (3) All suggestions are to be submitted with reference to the Master Question Paper with provisional answer key (Master Question Paper), published herewith on the website / online objection submission system. Objections should be sent referring to the Question, Question No. & options of the Master Question Paper.
- (4) Suggestions regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.
- (5) 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 suggestions are differed.
- (6) Objection for each question should be made on separate sheet. Objection for more than one question in single sheet shall not be considered.

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

- (1) ઉમેદવારે વાંધા-સૂચનો ફક્ત ઓનલાઇન ઓબ્જેક્શન સબમીશન સીસ્ટમ દ્વારા જ સબમીટ કરવાના રહેશે. રૂબરૂ અથવા ટપાલ દ્વારા આયોગની કચેરીએ મોકલવા આવેલ વાંધા-સૂચનો ધ્યાને લેવામા આવશે નહીં જેની ખાસ નોંધ લેવી.
- (2) ઉમેદવારે વાંધા-સૂચનો રજૂ કરવા વેબસાઇટ / ઓનલાઇન ઓબ્જેક્શન સબમીશન સીસ્ટમ પર પ્રસિધ્ધ થયેલ નિયત નમૂનાનો જ ઉપયોગ કરવો.
- (3) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ કરતા તમામ વાંધા-સૂચનો વેબસાઇટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર)ના પ્રશ્ન ક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા.
- (4) માસ્ટર પ્રશ્નપત્રમાં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા-સૂચનો ધ્યાને લેવામાં આવશે નહીં.
- (5) 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-સૂચનો ધ્યાનમા લેવાશે નહીં.
- (6) એક પ્રશ્ન માટે એક જ વાંધા-સૂચન પત્રક વાપરવું. એક જ વાંધા-સૂચનો પત્રકમાં એકથી વધારે પ્રશ્નોની રજૂઆત કરેલ હશે તો તે અંગેના વાંધા-સૂચનો ધ્યાને લેવાશે નહીં.

Website link for online objection submission system : <http://gpsc.safevaults.in/login/>

001. Pulmonary Function Testing is used to  
 (A) Functional state of respiratory system (B) Diagnosis of all respiratory disease  
 (C) Both (A) and (B) (D) None of above
002. Spirometry measures the amount of air  
 (A) Inhaled (B) Exhaled  
 (C) Both (A) and (B) (D) None of the above
003. Spirometry is indicated for  
 (A) Any occupational hazardous exposure to lungs  
 (B) Presurgical evaluation  
 (C) Persistent respiratory symptoms  
 (D) All of the above
004. Spirometry is excellent tool for diagnosis of  
 (A) Acute airway obstruction (B) Chronic airway obstruction  
 (C) Both (A) and (B) (D) None of the above
005. Largest volume measured on complete exhalation after full inspiration is?  
 (A) Forced vital capacity (B) Maximal voluntary ventilation  
 (C) Vital capacity (D) Forced expiratory volume
006. Volume of gas exhaled in a given time during performance of FVC is?  
 (A) Forced vital capacity (B) Maximal voluntary ventilation  
 (C) Vital capacity (D) Forced expiratory volume
007. Volume of air a subject can breathe with voluntary maximal effort for a given time is?  
 (A) Forced vital capacity (B) Maximal voluntary ventilation  
 (C) Vital capacity (D) Forced expiratory volume
008. The average forced expiratory flow between 25% and 75% (FEF<sub>25%-75%</sub>) of FVC is  
 (A) Most effort Independent portion of the curve  
 (B) More sensitive to airflow in Central Airways  
 (C) Both (A) and (B)  
 (D) None of the above
009. Gas Dilution Method make primary measurement of  
 (A) Vital capacity (B) Inspiratory capacity  
 (C) Expiratory reserve volume (D) Residual volume
010. In the single- breath measurement of the diffusing capacity for carbon monoxide (DLCO), lung volume can be calculated by measuring the change in concentration of the  
 (A) Neon (B) Helium  
 (C) Methane (D) All of the above
011. Plethysmography is of  
 (A) Pressure type (B) Volume type  
 (C) Pressure-volume type (D) All of the above
012. Lung elastic recoil helps differentiate between  
 (A) Emphysema (B) Fibrosis  
 (C) Both (A) and (B) (D) None of the above

013. Near approaching residual volume during forceful expiration, airway resistance is  
 (A) Higher than normal (B) Lower than normal  
 (C) Equal to normal (D) No change
014. Factors Reducing DLCO is?  
 (A) Polycythemia (B) Altitude  
 (C) Supine position (D) Anemia
015. Bronchial Provocation test can be used to diagnose  
 (A) COPD (B) Pulmonary embolism  
 (C) Occupational asthma (D) All of the above
016. Obstructive Ventilatory Defect has  
 (A) Normal FVC (B) Decreased FVC  
 (C) Both (A) and (B) (D) None of the above
017. Restrictive Ventilatory defect has  
 (A) Decreased VC (B) Decreased TLC  
 (C) Normal FEV1/FVC (D) All of the above
018. Methacholine challenge test is used to diagnose  
 (A) COPD (B) Bronchial asthma  
 (C) Pulmonary tuberculosis (D) Pulmonary embolism
019. Bronchodilator challenge test uses  
 (A) Albuterol 100mcg (B) Ipratropium bromide 36mcg  
 (C) Both (A) and (B) (D) None of the above
020. Which of following is obstructive airway disease?  
 (A) Bronchiectasis (B) Berryliosis  
 (C) Sarcoidosis (D) Myasthenia gravis
021. Permanent enlargement of airspaces distal to the terminal bronchioles due to alveolar wall destruction  
 (A) Emphysema (B) COPD  
 (C) Bronchiectasis (D) Bronchial Asthma
022. Types of Emphysema are  
 (A) Centrilobular (B) Panlobular  
 (C) Paraseptal (D) All of the above
023. Major Etiological Factors of COPD are?  
 (A) Smoke exposure  
 (B) Workplace exposures to Indoor and outdoor inhalants  
 (C) Both (A) and (B)  
 (D) None of above
024. The key Pathologic processes of copd are  
 (A) small airway disease (B) mucus hypersecretion  
 (C) vascular dysfunction (D) All of the above
025. The Earliest overt Lesion of copd is  
 (A) Small airway remodelling (B) Mucus hypersecretion  
 (C) Inflammatory cell infiltration (D) All of the above

026. Slowly growing mycobacteria among the following  
 (A) M. Kansasii (B) M. Abscessus complex  
 (C) M. Fortuitum (D) M. Peregrinum
027. Which of the following non tuberculous mycobacteria is involved in skin and soft tissue infections  
 (A) M.Malmoense (B) M.Haemophilum  
 (C) M.Ulcerans (D) M.Xenopi
028. Which of the following are the contraindications for video assisted thoracoscopy(VATS)  
 (A) Previous pneumonectomy (B) Severe COPD  
 (C) Pleural adhesions (D) All of the above
029. Identify the slowly growing photochromogen amongst the following  
 (A) M. Avium Complex (B) M. Xenopi  
 (C) M. Kansasii (D) M. Haemophilum
030. Identify the correct statement amongst the following in light of microbiological diagnosis of nontuberculous mycobacteria  
 (A) Positive culture from at least two bronchial wash or lavage  
 (B) Positive culture results from one expectorated sputum sample  
 (C) Positive culture from at least one bronchial wash or lavage  
 (D) No role of repeat sputum sample if the first expectorated sputum sample is negative
031. Which of the following nontuberculous mycobacteria is a thermophile  
 (A) M.Kansasii  
 (B) M.Xenopi  
 (C) M.Avium Complex  
 (D) M.Abscessus Complex
032. Total lung capacity (TLC), is defined as  
 (A) Total volume of air contained in the lungs after a maximal inhalation  
 (B) Total volume of air contained in the lungs after a maximal exhalation  
 (C) The volume of air that remains in the lungs at the end of a normal expiration  
 (D) None of the above
033. Which of the following drug is not used in treatment of nodular/bronchiectasis type of non tuberculous mycobacteria  
 (A) Azithromycin (B) Ethambutol  
 (C) Rifampin (D) Streptomycin
034. Which of the following drug is known to cause uveitis  
 (A) Ethambutol (B) Rifabutin  
 (C) Isoniazid (D) Streptomycin
035. What is the volume of air that is exhaled by a maximum expiration after a maximum inspiration?  
 (A) Vital capacity (B) Inspiratory capacity  
 (C) Total lung capacity (D) Expiratory reserve volume

036. Which of the following criteria is correct regarding extubation of a patient who has undergone lung resection?
- (A) Vital capacity more than 10ml/kg (B) Respiratory rate less than 32 breaths per min  
 (C) Vital capacity more than 20ml/kg (D) Respiratory rate less than 24 breaths per min
037. Which of the following drug is known to enhance rifabutin toxicity?
- (A) Clarithromycin (B) Imipenem  
 (C) Azithromycin (D) Streptomycin
038. Crohn's disease is caused by which of the following non tuberculous mycobacteria
- (A) M.Kansasii (B) M.Avium Complex  
 (C) M.Paratuberculosis (D) M.Szulgai
039. Which of the following is the correct definition of Alveolar pleural fistula?
- (A) Communication between pulmonary parenchyma distal to a segmental bronchus and pleural space  
 (B) Communication between pulmonary parenchyma proximal to a segmental bronchus and pleural space  
 (C) Communication between pulmonary parenchyma distal to terminal bronchus and pleural space  
 (D) None of the above
040. Which of the following non tuberculous mycobacteria is known to cause cervical lymphadenitis in children?
- (A) M.Xenopi (B) M.Kansasii  
 (C) M.Scrofulaceum (D) M.Simiae
041. Inheritance pattern seen in primary ciliary dyskinesia is
- (A) Autosomal Dominant (B) Autosomal Recessive  
 (C) X Linked Recessive (D) X Linked Dominant
042. Which of the following are responsible for air way injury and chronic bronchiectasis pathology?
- (A) Neutrophil derived elastases (B) Macrophage derived elastases  
 (C) Proteases (D) All of the above
043. Allergic bronchopulmonary aspergillosis is caused by which of the following organisms
- (A) A. Flavus (B) A. Fumigatus  
 (C) A. Niger (D) A. Terreus
044. Which of the following organism has been known to be the most causative organism of severe lung impairment in bronchiectasis?
- (A) P. Aeruginosa (B) Haemophilus Influenzae  
 (C) Streptococci (D) All Of The Above
045. Cystic fibrosis is caused by deficiency in the following the gene
- (A) ACFTR GENE (B) MMP12 GENE  
 (C) TGF BETA 1 GENE (D) ADAM33 GENE
046. Which of the following tests are done to diagnose Allergic Bronchopulmonary Aspergillosis?
- (A) Sweat Chloride Test (B) Bronchoscopy  
 (C) Alpha-1-Antitrypsin Level (D) All of the above

047. Most common form of TB in children less than 1 year  
 (A) Meningeal TB (B) Lymphatic TB  
 (C) Miliary TB (D) Bone/Joint TB
048. Cyclic rise and fall in ventilation with recurrent periods of apnea and near apnea is known as  
 (A) Kussmaul Breathing (B) Biot's Breathing  
 (C) Cheyne Stokes Breathing (D) None of the above
049. Crescendo decrescendo pattern of breathing is seen in which form of breathing  
 (A) Kussmaul Breathing (B) Biot's Breathing  
 (C) Cheyne Stokes Breathing (D) None of the above
050. Hering-Breuer reflex, which describes the termination of inspiration is mediated by which of the following receptors  
 (A) Slowly Adapting Receptors (B) Rapidly Adapting Receptors  
 (C) Bronchial J Receptors (D) Bronchial C Receptors
051. Surfactant production is enhanced by all except  
 (A) Glucocorticoids (B) EGF  
 (C) CAMP (D) TNF-alpha
052. Surfactant protein exclusively expressed in TYPE 2 alveolar cells  
 (A) SP-A (B) SP-B  
 (C) SP-C (D) SP-D
053. Early onset Pulmonary alveolar proteinosis in adult is due to  
 (A) Autoantibodies against CSF 2(GM-CSF)  
 (B) Mutation in gene encoding GM CSF receptor  
 (C) Mutation of CSF 2  
 (D) None of the above
054. As age advances the distance between alveolar walls increases while surface to volume ratio  
 (A) Increases (B) Decreases  
 (C) Unchanged (D) None of the above
055. Elastic recoil of lung parenchymal is produced by  
 (A) Surface tension at air fluid interface  
 (B) Retractive forces that are produced when fibrous skeleton of lung is stretched  
 (C) Both (A) and (B)  
 (D) None of the above
056. Components of Bellows apparatus  
 (A) Chest wall (B) Muscles of respiration  
 (C) Both (A) and (B) (D) None of the above
057. Loss of elastic recoil is physiological hallmark of  
 (A) Asthma (B) Emphysema  
 (C) ILD (D) Pneumonia
058. The total volume of pleural fluid is about  
 (A) 5 to 10 ml (B) 10 to 15 ml  
 (C) 15 to 20 ml (D) 20 to 25 ml

059. Defender of alveolus  
 (A) Type 1 cells (B) Type 2 cells  
 (C) Both (A) and (B) (D) None of the above
060. Main function of Type 2 alveolar cells  
 (A) Source of surfactant production (B) Regeneration of alveolar epithelium  
 (C) Both (A) and (B) (D) None of the above
061. Alveolar diameter ranges from  
 (A) 100 to 200 micrometre (B) 150 to 250 micrometre  
 (C) 200 to 250 micrometre (D) 250 to 300 micrometre
062. Gas movement between environment and alveolar space is function of  
 (A) Conducting airways (B) Lung parenchyma  
 (C) Interstium (D) All of the above
063. Common congenital anomaly of respiratory tract  
 (A) Tracheo esophageal fistula (B) Tracheal stenosis  
 (C) Lung agenesis (D) Tracheomalacia
064. Curvilinear vascular density in the right lower lung on cxr is seen in  
 (A) Lung sequestration (B) Scimitar syndrome  
 (C) AV malformations (D) Pericardial cyst
065. Stocker classification used for  
 (A) TEF  
 (B) Congenital Adenomatoid Malformation of Lung  
 (C) Sequestration  
 (D) Tracheal Agenesis
066. M/c type of tracheal agenesis  
 (A) Type 1 (B) Type 2  
 (C) Type 3 (D) None of the above
067. Respiratory progenitors of lung and trachea arise from ventral foregut endoderm at around  
 (A) 2nd week of gestation (B) 2nd week of gestation  
 (C) 3rd week of gestation (D) 4th week of gestation
068. Which is responsible for collateral ventilation in adult alveoli?  
 (A) Pores of Kohn (B) Clara cells  
 (C) Type 2 cells (D) Type 1 cells
069. Alpha 1 antitrypsin deficiency is associated with  
 (A) Centrilobular emphysema (B) Panlobular emphysema  
 (C) Both (A) and (B) (D) Paraseptal emphysema
070. As age advances which component is more vulnerable in cough and swallowing reflex?  
 (A) Sensory (B) Motor  
 (C) None of the above (D) All of the above
071. Most common Tb in pregnancy is  
 (A) Pulmonary (B) Extrapulmonary  
 (C) Lymph Node (D) Miliary

072. Most common type of sequestration is  
 (A) Intralobular (B) Extralobular  
 (C) None of the above (D) Both (A) and (B)
073. Abnormal budding of tracheobronchial tree during the course of development gives rise to  
 (A) Azygos lobe (B) Bronchohemic cyst  
 (C) Enterogenic cyst (D) None of the above
074. Important clinical feature of non traumatic bilateral diaphragmatic paralysis is  
 (A) Aspiration (B) Orthopnea  
 (C) Vomiting (D) Chest pain
075. A FVC of how much is sign of imminent respiratory failure in GBS  
 (A) 15cc/kg (B) 20cc/kg  
 (C) 25cc/kg (D) 10cc/kg
076. In humans, what is the percentage of oxidative fibers, the diaphragm is composed of ?  
 (A) 30% (B) 80%  
 (C) 70% (D) 45%
077. What is the nerve supply of diaphragm?  
 (A) Phrenic nerves supplied by the cervical nerve Roots C3 to C5  
 (B) Phrenic nerves supplied by the cervical nerve Roots C3 to C4  
 (C) Vagus nerve  
 (D) Musculophrenic nerve
078. Which type of muscles primarily composes of type of fibres have high endurance capacity?  
 (A) Type I fibres (B) Type II fibres  
 (C) Type iia fibres (D) Type IV fibre
079. Which type of muscles primarily composes of type of fibres designed to develop high forces but have low endurance capacity?  
 (A) Type I fibres (B) Type II fibres  
 (C) Type iib fibres (D) Type IV fibres
080. Which type of muscles have the greatest mechanical advantage, and their contraction produces about 60% of the cephalad motion of the rib during inspiration?  
 (A) External intercostal (B) Diaphragm  
 (C) Sternocleidomastoid (D) Parasternal intercostal
081. Which type of muscles are recruited predominantly during expiration?  
 (A) Internal intercostals (B) Diaphragm  
 (C) Sternocleidomastoid (D) Parasternal intercostal
082. During quiet breathing, what contributes about 60% to 70% of the tidal volume?  
 (A) Internal intercostals (B) Diaphragm  
 (C) Sternocleidomastoid (D) Parasternal intercostal
083. What is congenital absence of the posterolateral part of the diaphragm called?  
 (A) Bochdalek hernia (B) Morgagni hernia  
 (C) Traumatic hernia (D) Hiatus hernia

084. Which lipid mediator is thought to Protect against bronchospasm and inhibit inflammatory cells recruitment?  
 (A) A.PGE2 (B) B.PGE1  
 (C) C.PG I2 (D) D.PGF2
085. What are small–molecular-weight glycosylated signaling molecules that are secreted by a number of different cell types with autocrine, paracrine, or endocrine directive activities called?  
 (A) Cytokines (B) Chemokines  
 (C) Peptide hormones (D) Growth hormone
086. What does EMTU stand for, a key component of early lung morphogenesis, which, becomes reactivated in chronic asthma?  
 (A) Epidermal–Mesangial Trophic Unit  
 (B) Epithelial–Mesangial Tropical Unit  
 (C) Epithelial–Mesangial Trophic Unit  
 (D) Epithelial–Mesenchymal Trophic Unit
087. All of the following are mast cells Mediators except mediators  
 (A) Elastase (B) Chymase  
 (C) Tryptase (D) Collagenase
088. Which of the following is the most pathognomic signs for abpa on radiological findings?  
 (A) Central Bronchiectasis (B) Fleeting shadows  
 (C) Gloved finger sign (D) High attenuation mucus
089. What are The patient group who wheezed both before and after the age of 3 years called?  
 (A) Persistent wheezers (B) Chronic wheezers  
 (C) Asthmatic wheezers (D) Allergic wheezers
090. Which of the following intrinsic muscles is not responsible for the adductor of vocal cords ?  
 (A) Lateral crico arytenoids (B) Posterior crico arytenoids  
 (C) Oblique arytenoids (D) Transverse arytenoids
091. Which of the following muscle is involved mainly in elevation offirst and second ribs during inspiration?  
 (A) Sternocleidomastoid muscle (B) Scalene muscles  
 (C) Pectoralis major muscle (D) Internal intercostal muscles
092. A patient is presented with dyspnea, wheezing and cough. Skin testis negative and serum Ig E is found to be normal. Which of the following is might not be the cause for this case ?  
 (A) Viral infection (B) Cold exposure  
 (C) Aspirin administration (D) Exposure to pollen
093. Which of the following muscle is involved mainly in elevation of first and second ribs during inspiration?  
 (A) Sternocleidomastoid muscle (B) Scalene muscles  
 (C) Pectoralis major muscle (D) Internal intercostal muscles
094. Charcot leyden crystals are derived from  
 (A) Eosinophils (B) Basophils  
 (C) Neutrophils (D) Monocytes

095. What is the term for characteristic pattern of atopic disease development during infancy atopic dermatitis/ eczema in the first year of life, associated with food intolerance or allergy, followed by rhinoconjunctivitis and/or wheezing illnesses getting diagnosed as asthma?  
 (A) Atopic March (B) Allergic Rhinitis with asthma  
 (C) Atopic May (D) Food allergy
096. Which of the anti-asthmatic drugs can cause candidiasis of the larynx and laryngeal myopathy?  
 (A) Aminophylline (B) Montelukast  
 (C) Prednisolone (D) Cromoglycate
097. Which of the following is the most important cause for type II respiratory failure in myasthenia gravis?  
 (A) Increased resistance to ventilation (B) Pulmonary vasoconstriction  
 (C) Increased vagal stimulation of pontine centers (D) Early fatigue of inspiratory muscles
098. What is an important cellular source of Matrix protein deposition in the sub epithelium in Asthma?  
 (A) Myofibroblast (B) Proteoglycan  
 (C) Heparan sulphate (D) None of the above
099. \_\_\_\_\_ is a globulin (protein) produced by B cells as a defense mechanism against foreign materials.  
 (A) Antigen (B) Antibody  
 (C) Mast cell (D) Basophil
100. The term \_\_\_\_\_ implies a familial tendency to manifest such conditions as asthma, rhinitis, urticaria, and eczematous dermatitis.  
 (A) Tropical allergy (B) Atopic allergy  
 (C) Sensitization (D) Exocytosis
101. According to American European Consensus conference criteria for acute lung injury and ARDS, definition of hypoxemia in ALI and ARDS respectively  
 (A)  $P_{aO_2}/F_{iO_2} \leq 300$  mmhg and  $P_{aO_2} / F_{iO_2} \leq 100$  mmhg  
 (B)  $P_{aO_2}/F_{iO_2} \leq 200$  mmhg and  $P_{aO_2} / F_{iO_2} \leq 300$  mmhg  
 (C)  $P_{aO_2}/F_{iO_2} \leq 300$  mmhg and  $P_{aO_2} / F_{iO_2} \leq 200$  mmhg  
 (D) None of the above
102. Definition of severe ARDS  
 (A)  $P_{aO_2}/F_{iO_2} \leq 200$  mmhg (B)  $P_{aO_2}/F_{iO_2} \leq 300$  mmhg  
 (C)  $P_{aO_2}/F_{iO_2} \leq 100$  mmhg (D)  $P_{aO_2}/F_{iO_2} \leq 400$  mmhg
103. Non infectious cause of ARDS  
 (A) Diffuse bacterial pneumonia (B) Pneumocystis jiroveci pneumonia  
 (C) Acute eosinophilic pneumonia (D) Miliary tuberculosis
104. Injury due to repetitive opening and closing of alveoli during inspiration and expiration is called as  
 (A) Vol-trauma (B) Atelectra-trauma  
 (C) Bio-trauma (D) Baro-trauma
105. Target  $P_{aCO_2}$  according to recent ARDS management guidelines  
 (A) 65-80 mmhg (B) 55-75 mmhg  
 (C) 55-90 mmhg (D) 55-80 mmhg

106. Target SPO2 according to recent ARDS management guidelines  
 (A) 80-90% (B) 85-90%  
 (C) 88-95% (D) 85-98%
107. Target SPO2 according to recent ARDS management guidelines  
 (A) 7.30-7.40 (B) 7.25-7.35  
 (C) 7.35-7.45 (D) 7.30-7.45
108. Differential diagnosis of ARDS include all except  
 (A) Pulmonary edema (B) Leukemic infiltration  
 (C) Bronchial Asthma (D) Sarcoidosis
109. According to latest ARDS management guidelines Tidal volume should be maintained  
 (A)  $\leq 6\text{ml/Kg PBW}$  (B)  $\leq 5\text{ml/Kg PBW}$   
 (C)  $\leq 7\text{ml/Kg PBW}$  (D)  $\leq 4\text{ml/Kg PBW}$
110. Most common low molecular weight agent causing Occupational Asthma  
 (A) Metals (B) Isocyanates  
 (C) Persulfate salts (D) Quaternary ammonium compounds
111. Main cytokine action in production of eosinophils  
 (A) IL 6 (B) IL 7  
 (C) IL 5 (D) IL 8
112. Dose of corticosteroids in treatment of Idiopathic Chronic Eosinophilic Pneumonia  
 (A) 20-60 mg /day (B) 30-60 mg /day  
 (C) 20-50 mg /day (D) 30-50 mg /day
113. 'Finger in Glove' appearance is seen in HRCT of  
 (A) ARDS  
 (B) Allergic Bronchopulmonary Aspergilosis  
 (C) Idiopathic Chronic Eosinophilic Pneumonia  
 (D) ILD
114. Tropical pulmonary eosinophilia is caused by mainly  
 (A) Wucheria Bancrofti (B) Trichuris Trichura  
 (C) Enterobia Vermicularis (D) Entamoeba Histolytica
115. According to Cottin and Cordier diagnostic and classification criteria for esoinophilic granulomatosis with polyngitis  
 (A) Peripheral blood eosinophilia  $> 1500 /\text{mm}^3$  and aveolar eosinophilia  $>25 \%$   
 (B) Peripheral blood eosinophilia  $> 1000 /\text{mm}^3$  and aveolar eosinophilia  $>25 \%$   
 (C) Peripheral blood eosinophilia  $> 1500 /\text{mm}^3$  and aveolar eosinophilia  $>35 \%$   
 (D) Peripheral blood eosinophilia  $> 1000 /\text{mm}^3$  and aveolar eosinophilia  $>35 \%$
116. Primary classification of bulla include all except  
 (A) Vanishing lung syndrome (B) Single giant bulla  
 (C) Bullous lung disease (D) Emphysema
117. Bulla found at lung apices and along edges of lingulas and middle lobe catergorised as  
 (A) Type I (B) Type II  
 (C) Type III (D) None of the above

118. What happen to total lung capacity in bullous disease?  
 (A) Increases (B) Decreases  
 (C) Normal (D) None of the above
119. Size of lung bleb  
 (A) 1-2 cm (B) 2-5 cm  
 (C) 2-10 cm (D) < 1 cm
120. Familial disorders associated with bullous disease are all except  
 (A) Alpha 1 antitrypsin deficiency (B) Ehler danlos syndrome  
 (C) Marfan syndrome (D) Patau syndrome
121. Sensory nerve ending in alveolar walls are called  
 (A) B receptor (B) C receptor  
 (C) G receptor (D) J receptor
122. Periodic breathing characterized by slowly waxing and waning respiration occurring about every 40 to 60 sec is called  
 (A) Biots Breathing (B) Kussmauls Breathing  
 (C) Cheyne Stokes Breathing (D) Hyperventilation
123. Afferent nerve fibre from carotid bodies  
 (A) Vagus (B) Glossopharyngeal  
 (C) Facial (D) Hypoglossal
124. Pneumotaxic centers are located in  
 (A) Upper pons (B) Middle pons  
 (C) Lower pons (D) None of the above
125. Change in pao<sub>2</sub>, paco<sub>2</sub>, ph in exercise  
 (A) Pao<sub>2</sub> increases, PaCo<sub>2</sub> increases, PH same  
 (B) Pao<sub>2</sub> increases, PaCo<sub>2</sub> increases, PH increases  
 (C) Pao<sub>2</sub> decreases, PaCo<sub>2</sub> increases, PH same  
 (D) Remains almost same
126. Difference between the alveolar and pleural pressures is termed as  
 (A) Transthoracic pressure (B) Transpulmonary pressure  
 (C) Trans alveolar pressure (D) Trans bronchial pressure
127. A flow volume loop is showing plateauing of the inspiratory loop only. The most likely cause is:  
 (A) Fixed extra-thoracic obstruction (B) Variable extra-thoracic obstruction  
 (C) Fixed intra-thoracic obstruction (D) Variable intra-thoracic obstruction
128. Which among the following is the most pathognomic radiologic Sign of ABPA?  
 (A) Central bronchiectasis (B) High attenuation mucus  
 (C) Gloved finger sign (D) Fleeting shadows
129. Calcification in mediastinal neuroblastoma is  
 (A) Rare (B) Seen in 50%  
 (C) Seen in 80% (D) Usually do not calcify
130. Which of the following is a late manifestation of OP poisoning?  
 (A) Bradycardia (B) Extra-pyramidal manifestations  
 (C) Peripheral neuropathy (D) Coma

131. Which of the following is a Janus kinase inhibitor?  
 (A) Toclizumab (B) Baricitinib  
 (C) Anakinra (D) Infliximab
132. In castlemans disease HHV 8 is implicated in patho genesis of  
 (A) Multicentric disease (B) Unicentric disease  
 (C) Both (A) and (B) (D) Not associated
133. GAP score is used as a mortality predictor in which condition?  
 (A) Idiopathic pulmonary fibrosis (B) COPD  
 (C) Asthma (D) None of the above
134. Most common location for ectopic parathyroid tumour is  
 (A) Anterior mediastinum (B) Posterior mediastinum  
 (C) Chest wall (D) None of the above
135. Oral drug ivacaftor is used in the treatment of  
 (A) Lymphangiomyomatosis (B) Pulmonary Alveolar Proteinosis  
 (C) Cystic Fibrosis (D) Sarcoidosis
136. All are used in tobacco smoking cessation except  
 (A) Nicotine replacement therapy (B) Bupropion  
 (C) Varenicline (D) E-cigarette
137. Regarding Bedaquiline which is FALSE  
 (A) Belongs to the diarylquinoline class  
 (B) Targets the rpoB gene encoding the subunit C of the ATP synthase of  
 (C) Mycobacterium tuberculosis  
 (D) Binds to the oligomeric and proteolipic subunit c of mycobacterial atp synthase
138. A 12 year old boy presented with elevated sweat chloride, with recurrent bouts of Pseudomonas. Aeruginosa pneumonia. What condition is this patient susceptible to?  
 (A) Chronic Bronchitis (B) Bronchiectasis  
 (C) Pneumonia (D) Pericarditis
139. Which of the following is most commonly associated with bronchiectasis?  
 (A) Post infection (B) Primary ciliary dyskinesia  
 (C) Alpha-1 antitrypsin deficiency (D) Congenital structural deformity
140. Following is an not endpoint of atropinisation in OP poisoning ?  
 (A) Dry axilla (B) SBP> 80 mmhg  
 (C) Clear chest (D) Miosis
141. Rounded atelectasis is a complication of  
 (A) Silica (B) Asbestos  
 (C) Beryllium (D) Coal
142. In chronic beryllium disease, the following is seen  
 (A) Parotid involvement (B) Bone changes  
 (C) Posterior Uveitis (D) Liver involvement
143. According to ILO classification, the silicotic opacities belong to  
 (A) P (B) Q  
 (C) Q and R (D) R

144. Group B drugs in MDR regimen are all except  
 (A) Terizidone (B) Clofazimine  
 (C) Linezolid (D) Cycloserine
145. All are included for shorter oral bedaquiline regimen except  
 (A) H resistance detected based on INHA mutation only or KATG mutation only  
 (B) H resistance detected based on both INHA mutation and KATG mutation  
 (C) FQ resistance not detected  
 (D) No extensive TB
146. Antiretrovirals safe to use with bedaquiline  
 (A) Zidovudine (B) Efavirenz  
 (C) Ritonavir (D) Lopinavir and Zidovudine
147. QT prolongation is caused by all except  
 (A) Cycloserine (B) Bedaquiline  
 (C) FQ (D) Clofazimine
148. Indications of bronchial thermoplasty  
 (A) Acute asthma (B) COPD  
 (C) Chronic asthma (D) Acute airway hyperresponsiveness
149. Thrombosis and thromboembolism in COVID -19 is cause by  
 (A) Severe immunothrombosis state (B) Elevation of von willebrand factors  
 (C) Activation of complements (D) All of the above
150. The entry of SARS COV-2 is through  
 (A) Epithelial cells expressing ACE2 receptor  
 (B) Endothelial cells expressing ACE2 receptors  
 (C) Both (A) and (B)  
 (D) None of the above
151. The most common congenital deformity of chest wall  
 (A) Kyphoscoliosis (B) Pectus carinatum  
 (C) Pectus excavatum (D) Rachitic rosary
152. Most common cause of diaphragmatic paralysis  
 (A) Trauma (B) Mediastinal tumors  
 (C) Infections of pleural space (D) Phrenic nerve injury in open heart surgery
153. Rolled or holly leaf pattern on cxr is seen in  
 (A) Silicosis (B) Byssinosis  
 (C) Asbestos Exposure (D) Bagassosis
154. The impairment system in which the workers cannot sue the employer for injury or illness  
 (A) social security impairment (B) worker's compensation system  
 (C) ESI (D) None of the above
155. Any loss or abnormality of psychological, physiologic or anatomical structure and function is called  
 (A) Impairment (B) Disability  
 (C) Handicap (D) Total Disability

156. A 40 years old male develops excessive hyperventilation. ABG reveals pH = 7.5, PCO<sub>2</sub> 24 mmHg, PO<sub>2</sub> 88 mm of Hg :
- (A) Respiratory alkalosis (B) Metabolic alkalosis  
(C) Respiratory acidosis (D) Metabolic acidosis
157. Causative agent of farmer's lung is
- (A) Thermophilus actinomycetes (B) Aspergillus  
(C) Penicillium glabrum (D) Rhizopus
158. Hot tub lung is related to
- (A) Isocyanates (B) Mycobacterium avium complex  
(C) Molds in air conditioners (D) Legionella
159. What treatment is most appropriate for pulmonary alveolar proteinosis?
- (A) Whole lung lavage (B) Prednisone  
(C) Prednisone and cyclophosphamide (D) Bronchial thermoplasty
160. Three-layered sputum seen in
- (A) Klebsiella pneumonia (B) Silicosis  
(C) CA lung (D) Bronchiectasis
161. False statement regarding Criteria for Diagnosis of ABPA
- (A) Episodic bronchial asthma  
(B) Peripheral blood eosinophilia (>1000/mm<sup>3</sup>)  
(C) Elevated serum IgE levels (>1000ng/ml)  
(D) Peripheral bronchiectasis on Chest CT scans
162. The average time of exposure to someone with active TB until acquisition of infection is about
- (A) two hours (B) two days  
(C) two weeks (D) two months
163. Nucleic acid amplification (NAA) tests for the diagnosis of TB
- (A) Are not approved by the FDA.  
(B) Require more than one month for results.  
(C) May not be used with smear-positive specimens.  
(D) Are able to differentiate between different species of M. tuberculosis.
164. Chemoprophylaxis is recommended for all of the following groups of people with a positive tuberculin test of 6 mm, EXCEPT:
- (A) Children older than 4 years of age  
(B) Persons with known or suspected HIV infection  
(C) Close contacts of persons with infectious, clinically active TB  
(D) Persons who inject drugs and who are known to be HIV negative
165. O<sub>2</sub> delivery to tissues depends on all except
- (A) Type of fluid administered (B) Hemoglobin  
(C) Ventilation (D) Cardiac output

166. The Oxygen-haemoglobin dissociation curve is sigmoid shape because  
 (A) Binding of one O<sub>2</sub> molecule increases the affinity of binding of subsequent O<sub>2</sub> molecules  
 (B) Binding of one O<sub>2</sub> molecule decreases the affinity of binding of subsequent O<sub>2</sub> molecules  
 (C) Bohr effect  
 (D) Haldane effect
167. Which method can be used to measure or estimate pulmonary hypertension?  
 (A) Systemic blood pressure put into the modified Bernoulli's equation  
 (B) Cardiac catheterization for direct measurement  
 (C) Velocity of mitral regurgitation during echocardiography  
 (D) Velocity of tricuspid regurgitation during echocardiography
168. Which of the following is correct for the partial pressure of oxygen in alveoli?  
 (A) Less than carbon dioxide  
 (B) Less than the blood  
 (C) More than the blood  
 (D) Equal to that of the blood
169. Which drug/intervention is of no proven benefit in management of acute severe asthma in adults?  
 (A) Steroids  
 (B) Magnesium  
 (C) CPAP  
 (D) Aminophylline
170. Miliary TB on CT scan has:  
 (A) Peribronchial distribution of lesions  
 (B) Lesions randomly distributed measuring 1-2 mm  
 (C) Small granulomas with satellite lesions  
 (D) Small nodules with caseation
171. Most common presenting symptom in bullous lung disease is  
 (A) Gradually progressive exertional dyspnea  
 (B) Chest pain  
 (C) Hemoptysis  
 (D) Cough
172. Bullous lung disease occurs in all except  
 (A) Marfans syndrome  
 (B) Ehlers Danlos syndrome  
 (C) Fabry's disease  
 (D) Neimann pick syndrome
173. Which of the following is not a component of the TB bacterial cell wall?  
 (A) Lipoarabinomannan  
 (B) Mycolic Acid  
 (C) Galactomannan  
 (D) Arabinogalactan
174. Which of the following NAA test is used in detection of resistance to rifampicin and INH?  
 (A) AMPLICOR  
 (B) AMTD  
 (C) BDP  
 (D) Geno Type MTBDR
175. Body plethysmography is used to measure  
 (A) Lung residual volume (RV)  
 (B) Total lung capacity (TLC)  
 (C) FRC  
 (D) All of the above
176. Which of the following is known as marker of "gas trapping"?  
 (A) Residual Volume  
 (B) FRC  
 (C) TLC  
 (D) IRV

177. Best Method among the following to measure FRC  
 (A) Multi-breath He dilution measurement (B) Nitrogen washout  
 (C) Body plethysmography- (D) PFT
178. Which of the following preoperative risk reduction strategies optimize the chance of a successful outcome ?  
 (A) Smoking Cessation (B) Regional Anesthesia  
 (C) Mobilization (D) Decrease duration of surgery
179. Patient is high risk for a pneumonectomy  
 (A) Preoperative FEV1 and the DLCO are  $\geq 80\%$  predicted normal  
 (B) Predicted post pneumonectomy FEV1  $< 30\%$  predicted normal  
 (C) Preoperative FEV1 or the DLCO are  $< 80\%$  Normal  
 (D) Preoperative FEV1 and DLCO  $> 90\%$  predicted normal
180. Which of the following Values is increased in Bullous emphysema ?  
 (A) Alveolar-arterial difference in  $p_{aO_2}$  (B) DLCO  
 (C) Arterial oxygenation with exercise (D) Ratio of tidal volume to dead space
181. Which of the following is a contraindication for a classical Bullectomy?  
 (A) Young age (B) Pulmonary HTN  
 (C) FEV1  $> 90\%$  (D) "high" trapped lung volume
182. The gaseous exchange in alveoli is a type of  
 (A) Simple diffusion (B) Osmosis  
 (C) Active transport (D) Passive transport
183. Antitb drug that has bacteriocidal and sterilizing effect on tissue is:  
 (A) Rifampicin (B) INH  
 (C) Ethambutol (D) Pyrazinamide
184. Most common pulmonary reaction associated with aspirin use  
 (A) ARDS (B) Bronchospasm  
 (C) Vasculitis (D) Hemoptysis
185. Which of the following drugs produce clinical presentation similar to Goodpasture syndrome?  
 (A) NSAIDS (B) Methotrexate  
 (C) D- Pencillamine (D) Beta blockers
186. Which autoantibody is specific in MCTD ?  
 (A) Scl-20 (B) Ds DNA  
 (C) Sm (D) U1-RNP
187. Which of the following is not a feature in Scleroderma ?  
 (A) Sclerodactyly (B) Gottron papules  
 (C) Raynauds phenomenon (D) Salt and pepper pigmentation
188. Most frequent radiological pattern in CTD-ILD is ?  
 (A) NSIP (B) UIP  
 (C) LIP (D) OP
189. MCTD is identified by the presence of features of all of the following except ?  
 (A) SLE (B) Ssc  
 (C) C.PM (D) RA

190. Which of the following is not true regarding Anti synthetase Syndrome ?  
 (A) Positive anti-t RNA antibody (B) Pulmonary manifestation as ILD  
 (C) Most specific to SLE (D) Seen in PM and DM
191. Which is not characteristic of Sjogrens Syndrome ?  
 (A) Malar rash (B) Dry eyes (Kerato conjunctivitis Sicca)  
 (C) Dry mouth (Xerostomia) (D) Positive Ro(SS-A) / La(SS-B)
192. Which is never required in diagnosis of SSC-ILD ?  
 (A) HRCT (B) Autoantibodies  
 (C) PFT and DLCO (D) Biopsy
193. What is the most common radiological pattern in RA-ILD ?  
 (A) NSIP (B) OP  
 (C) UIP (D) LIP
194. Which among following is not a classical feature of SLE ?  
 (A) Malar rash (B) Positive anticentromere antibody  
 (C) Photosensitivity (D) Positive ds DNA
195. Which is not classical of Dermatomyositis ?  
 (A) Gottrons papules (B) Heliotrope rash  
 (C) Raynauds phenomenon (D) Positive anti t-RNA antibody
196. Which is a wrong statement regarding CPET ?  
 (A) Can be done to assess preoperative risk  
 (B) Can be done to assess exercise capacity  
 (C) Useful to determine cause of unexplained shortness of breath  
 (D) Can be done in patients with hypoxia by administering supplemental oxygen
197. Parameters in CPET are all except  
 (A)  $\dot{V}O_2$  (B) RER  
 (C)  $\dot{V}D/\dot{V}T$  (D) FEV1
198. Which is wrong statement regarding CPET ?  
 (A) Can be done within 10 days of MI  
 (B) Can be used for risk stratification before surgery  
 (C) Can be used for prognosticating outcomes  
 (D) Can be used for evaluation of dyspnoea
199. Which among below is not a method used to assess CPET ?  
 (A) Invasive treadmill test (B) Non invasive treadmill test  
 (C) 6MWT (D) Cycle ergometer
200. Which of the variable is not seen in CPET graphs ?  
 (A) Cardiac Index (B)  $\dot{V}O_2$   
 (C)  $\dot{V}CO_2$  (D) FEV1/FVC