

## APO

### PROVISIONAL ANSWER KEY [CBRT]

Name of The Post	Assistant Professor, Tuberculosis and Chest Diseases, General State Service, Class-1
Advertisement No	85/2019-20
Preliminary Test Held On	10-01-2021
Que. No.	001-200
Publish Date	13-01-2021
Last Date to Send Suggestion (S)	21-01 -2021

### Instructions / સૂચના

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

- (1) All the suggestion should be submitted in prescribed format of suggestion sheet Physically.
- (2) Question wise suggestion to be submitted in the prescribed format (Suggestion Sheet) published on the website.
- (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. 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 shall be made on separate sheet. Objection for more than one question in single sheet shall not be considered & treated as cancelled.

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

- (1) ઉમેદવારે વાંધા-સૂચનો નિયત કરવામાં આવેલ વાંધા-સૂચન પત્રકથી રજૂ કરવાના રહેશે.
- (2) ઉમેદવારે પ્રશ્નપ્રમાણે વાંધા-સૂચનો રજૂ કરવા વેબસાઈટ પર પ્રસિધ્ધ થયેલ નિયત વાંધા-સૂચન પત્રકના નમૂનાનો જ ઉપયોગ કરવો.
- (3) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ ન કરતા તમામ વાંધા-સૂચનો વેબસાઈટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર)ના પ્રશ્ન ક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા.
- (4) માસ્ટર પ્રશ્નપત્ર માં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા-સૂચન ધ્યાને લેવામાં આવશે નહીં.
- (5) ઉમેદવારે જે 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 ઉત્તરવહીની જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા-સૂચન ધ્યાનમાં લેવાશે નહીં.
- (6) એક પ્રશ્ન માટે એક જ વાંધા-સૂચન પત્રક વાપરવું. એક જ વાંધા-સૂચન પત્રકમાં એકથી વધારે પ્રશ્નોની રજૂઆત કરેલ હશે તો તે અંગેના વાંધા-સૂચનો ધ્યાને લેવાશે નહીં.

001. The DLCO is increased in  
 (A) Emphysema (B) Asbestosis  
 (C) Pulmonary embolism (D) Exercise in a normal subject
002. Pulmonary surfactant is produced by:  
 (A) Alveolar macrophages (B) Goblet cells  
 (C) Leukocytes (D) Type II alveolar cells
003. According to Poiseuille's law, reducing the radius of an airway to one third will increase its resistance by \_\_\_\_\_ times.  
 (A) 1/3 (B) 3  
 (C) 9 (D) 81
004. The most important stimulus for controlling the level of resting ventilation is:  
 (A)  $P_{O_2}$  on peripheral chemoreceptors (B)  $P_{CO_2}$  on peripheral chemoreceptors  
 (C) pH on peripheral chemoreceptors (D) pH of CSF on central chemoreceptors
005. True about the Hering-Breuer inflation reflex is:  
 (A) The impulses travel to the brain via the carotid sinus nerve.  
 (B) It results in further inspiratory efforts if the lung is maintained inflated.  
 (C) It is seen in adults at small tidal volumes.  
 (D) None of the above
006. Transpulmonary pressure (PTP) is measured by?  
 (A) Alveolar pressure - pleural pressure  
 (B) Pleural pressure - alveolar pressure  
 (C) Endexpiratory - endinspiratory pleural pressure  
 (D) Endinspiratory - endexpiratory pleural pressure
007. Maximal inspiratory pressure (MIP) and maximal expiratory pressure (MEP) are used to assess  
 (A) Strength of respiratory muscles (B) Lung recoil  
 (C) Airway obstruction (D) All of the above
008. When fully saturated, each gram of hemoglobin carries \_\_\_\_\_  
 (A) 0.34 mL of  $O_2$  (B) 1.34 mL of  $O_2$   
 (C) 2.34 mL of  $O_2$  (D) 3.34 mL of  $O_2$
009. 'Sulphur granule pus' is associated with  
 (A) Tuberculosis (B) Mycoplasma  
 (C) Actinomycosis (D) Hodgkin's disease
010. Which of the following cells predominate in asthmatics ?  
 (A) TH1 (B) TH2  
 (C) TH3 (D) TH4
011. Cough associated with angiotensin-converting enzyme inhibitors is because of  
 (A) Type I interferons (B) Kinins  
 (C) Cysteinyl leukotrienes (D) All of the above

012. False about exercise induced asthma (EIA) is  
 (A) Begins after exercise has ended  
 (B) Recovers spontaneously within ~30minutes  
 (C) Best prevented by regular use of inhaled glucocorticoids  
 (D) None of the above
013. Creola bodies are made up of  
 (A) Airway epithelium (B) Airway smooth muscle  
 (C) Thick and stringy mucus (D) All of the above
014. Which of the following is not a bronchodilator drug ?  
 (A) Beta2 - adrenergic agonists (B) Anticholinergics  
 (C) Inhaled Corticosteroids (ICSs) (D) Theophylline
015. Actions of Beta2-agonists include all except  
 (A) Reduction in airway hyperresponsiveness (AHR)  
 (B) Inhibition of mast cell mediator release  
 (C) Reduction in plasma exudation  
 (D) Inhibition of sensory nerve activation
016. Theophylline activates  
 (A) Growth factor - related receptor tyrosine kinase  
 (B) Histone deacetylase-2  
 (C) DNA methyltransferase  
 (D) All-trans-retinoic acid (ATRA)
017. Stratosphere sign on USG is seen in  
 (A) Pleural effusion (B) Pneumothorax  
 (C) Normal lung (D) Pulmonary edema
018. Monoclonal antibody to IL-5 is  
 (A) Mepolizumab (B) Omalizumab  
 (C) Tocilizumab (D) Itolizumab
019. Detection of galactomannan antigen in serum is seen in  
 (A) Invasive aspergillosis of the lung (B) Bronchiectasis  
 (C) Bronchogenic carcinoma (D) Atelectasis
020. "Monday chest tightness" is associated with  
 (A) Bagassosis (B) Byssinosis  
 (C) Berylliosis (D) Asbestosis
021. Fever is due to release of  
 (A) Interleukin (IL) 1 (B) Interleukin (IL) 8  
 (C) Granulocyte colony-stimulating factor (D) All of the above
022. Influenza infection is complicated by  
 (A) Streptococcus pneumoniae (B) Haemophilus influenzae  
 (C) Staphylococcus aureus (D) None of the above

023. A recent hotel stay or ship cruise is associated with pneumonia due to?  
 (A) Legionella  (B) Enterobacteriaceae  
 (C) MRSA  (D) P. aeruginosa
024. Adequate sputum sample for culture should have  
 (A) >25 PMN  (B) >20 PMN  
 (C) >15 PMN  (D) >10 PMN
025. Methicillin resistance in S. aureus is determined by  
 (A) ermB gene  (B) mecA gene  
 (C) gyrA gene  (D) parC gene
026. The following is not a feature of Kartagener's syndrome  
 (A) Situs inversus  (B) Colonic diverticula  
 (C) Bronchiectasis  (D) Sinusitis
027. CFTR stands for  
 (A) CF transmembrane resistance regulator  (B) CF transmembrane conductance regulator  
 (C) CF transport regulator  (D) CF transcription regulator
028. False about ankylosing spondylitis is  
 (A) Upper lobe fibrobullous lesion can be seen  
 (B) Restrictive lung disease  
 (C) Obstructive lung disease  
 (D) anti-TNF  $\alpha$  therapy is useful
029. Which allele is associated with normal  $\alpha$ 1 antitrypsin levels ?  
 (A) S  (B) M  
 (C) Z  (D) Null
030. Which of the following is responsible for increased resistance in most individuals with COPD ?  
 (A) Large airways  (B) Medium airways  
 (C) Small airways  (D) All of the above
031. Bupropion is contraindicated in  
 (A) Diabetes mellitus  (B) Hypertension  
 (C) Seizure  (D) Hypothyroidism
032. Which of the following is not a parameter in 'BODE index' ?  
 (A) Breathing rate  (B) Airflow obstruction  
 (C) Dyspnoea  (D) Exercise capacity
033. Interstitial lung disease in which of these conditions is more common in men  
 (A) Lymphangiomyomatosis (LAM)  (B) Tuberous sclerosis  
 (C) Hermansky-Pudlak syndrome  (D) Rheumatoid arthritis
034. In pulmonary alveolar proteinosis (PAP), the neutralizing IgG antibody is against  
 (A) Surfactant  (B) GM-CSF  
 (C) PAS positive lipoproteinaceous material  (D) All of the above

035. In Pulmonary lymphangioleiomyomatosis (LAM), is associated with proliferation of which of the following
- (A) Type 1 pneumocytes (B) Type 2 pneumocytes  
 (C) Pulmonary lymphatic vessels (D) Neoplastic smooth muscle cells
036. Löfgren's syndrome is characterized by
- (A) Arthritis (B) Erythema nodosum  
 (C) Bilateral hilar adenopathy (D) All of the above
037. By chest radiographs, Stage 3 sarcoidosis refers to which of the following
- (A) Bilateral hilar lymphadenopathy without infiltration  
 (B) Bilateral hilar lymphadenopathy with infiltration  
 (C) Infiltration alone  
 (D) Fibrotic bands, bullae, hilar retraction, bronchiectasis, and diaphragmatic tenting
038. Westermark's sign refers to
- (A) Focal oligemia  
 (B) Peripheral wedged-shaped density above diaphragm  
 (C) Enlarged right descending pulmonary artery  
 (D) Enlarged left descending pulmonary artery
039. Antidote for bleeding from fondaparinux is ?
- (A) Protamine sulfate (B) Vitamin K  
 (C) Recombinant factor VIIa (D) None of the above
040. Not related to pleural effusion is
- (A) Skodaic resonance (B) Calots triangle  
 (C) Grocco triangle (D) Garland triangle
041. Parapneumonic effusions are associated with
- (A) Bacterial pneumonia (B) Lung abscess  
 (C) Bronchiectasis (D) All of the above
042. Characteristic of pleural fluid biochemical analysis to diagnose chylothorax is
- (A) pleural fluid to sr cholesterol ratio of less than one  
 (B) Triglyceride > 110 mg/dL  
 (C) Either (A) or (B)  
 (D) Both (A) and (B)
043. Hemothorax is diagnosed when hematocrit of pleural fluid is \_\_\_\_\_ percent of the peripheral blood hematocrit
- (A) > 25 % (B) > 33 %  
 (C) > 50 % (D) > 75 %
044. Secondary spontaneous pneumothorax is treated with
- (A) Tube thoracostomy (B) Bleb resection  
 (C) Pleural abrasion (D) Simple aspiration
045. Azygos and hemiazygos veins are present in which compartment of mediastinum ?
- (A) Anterior (B) Middle  
 (C) Posterior (D) None of the above

046. In kyphoscoliosis, at what angle of curvature, marked ventilatory abnormalities develop commonly  
 (A)  $> 60^\circ$  (B)  $> 70^\circ$   
 (C)  $> 80^\circ$  (D)  $> 100^\circ$
047. Alveolar ventilation is calculated by  
 (A) Minute ventilation  $\times (1-V_d/V_t)$  (B) Minute ventilation /  $(1-V_d/V_t)$   
 (C) Minute ventilation +  $(1-V_d/V_t)$  (D) Minute ventilation –  $(1-V_d/V_t)$
048. Rapid-shallow-breathing index (RSBI) is calculated by  
 (A) Respiratory rate / FVC (B) Respiratory rate / IC  
 (C) Respiratory rate / tidal volume (D) None of the above
049. The ratio of partial pressure arterial oxygen and fraction of inspired oxygen is called  
 (A) Carrico index (B) Girard index  
 (C) Abraham index (D) Pronovost index
050. Normal respiratory system compliance is  
 (A) 10 mL per cmH<sub>2</sub>O (B) 50 mL per cmH<sub>2</sub>O  
 (C) 100 mL per cmH<sub>2</sub>O (D) 150 mL per cmH<sub>2</sub>O
051. Which of the following is not a phase of ARDS ?  
 (A) Exudative (B) Serofibrinous  
 (C) Proliferative (D) Fibrotic
052. Extra Pulmonary samples processed by Gene X-pert (CBNAAT) include all except  
 (A) Gastric Lavage (B) Blood  
 (C) CSF (D) Pleural Fluid
053. Which of the following has shortest turnaround time?  
 (A) Solid LJ media (B) Liquid Culture (MGIT)  
 (C) LPA (D) NAAT
054. A TB patient, whose biological specimen is resistant to more than one first-line anti-TB drug, other than both H and R. is classified under PMDT as  
 (A) Poly-Drug Resistance TB (PDR) (B) Mono-resistance TB (MR):  
 (C) Multi Drug Resistance (MDR) (D) None of the above
055. False about Bedaquiline is  
 (A) New class of drug, Diarylquinoline (B) Targets mycobacterial ATP synthase,  
 (C) Strong bacteriostatic (D) Cross-resistance with Clofazimine.
056. Microbiologic criteria for diagnosis of NTM lung disease  
 (A) At least three sputum results available with Two positive cultures regardless of the results of AFB smear  
 (B) Single available bronchial wash or lavage with One positive culture regardless of the results of AFB smear  
 (C) Either (A) or (B)  
 (D) Both (A) and (B)

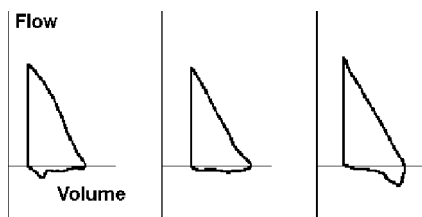
057. The decision to intubate a patient is based on all of the following indications with the exception of  
 (A) airway obstruction. (B) hypoxemia.  
 (C) mechanical ventilation. (D) removal of secretions.
058. To avoid complications, the cuff of an endotracheal tube is managed by all techniques except  
 (A) minimal occlusion volume. (B) periodic deflation for 20 minutes 4 hourly.  
 (C) cuff pressure less than 25 cm H<sub>2</sub>O. (D) minimal leak technique.
059. If the desired I:E ratio is 1:3, what should be the I time %  
 (A) 25% (B) 35%  
 (C) 40% (D) 20%
060. The primary purpose of permissive hypercapnia is to reduce the patient's \_\_\_\_\_ during mechanical ventilation.  
 (A) tidal volume (B) pH  
 (C) pulmonary pressures (D) Frequency
061. The ARDSNet recommends that the plateau pressure to be kept below  
 (A) 15 cm H<sub>2</sub>O. (B) 20 cm H<sub>2</sub>O.  
 (C) 30 cm H<sub>2</sub>O. (D) 40 cm H<sub>2</sub>O.
062. The sequential organ failure assessment (SOFA) score is done to:  
 (A) evaluate the functions of major organs.  
 (B) determine the treatments required for critically ill patients.  
 (C) predict the outcomes of critically ill patients.  
 (D) obtain biopsies from major organs.
063. Parasternal muscles are active during-  
 (A) Quiet expiration (B) Quite inspiration  
 (C) Forcefull expiration (D) All of the above
064. Normal P50 for human blood is-  
 (A) 24.5 mm Hg (B) 25.5 mm Hg  
 (C) 26.5 mm Hg (D) 27.5 mm Hg
065. Dyspnea in upright position and relieved by recumbency  
 (A) Orthopnea (B) Platypnea  
 (C) Trepopnea (D) PND
066. Cheyne stokes respiration is associated with  
 (A) Respiratory acidosis (B) Respiratory Alkolosis  
 (C) Metabolic Acidosis (D) None of the above
067. Currant Jelly sputum is seen in  
 (A) Pneumococcal pneumonia (B) Klebsiella Pneumonia  
 (C) Neisseria pneumonia (D) Bacteroid infection
068. Clubbing is not seen in  
 (A) empyema (B) COPD  
 (C) IPF (D) Bronchiectasis

069. True about Birt Hogg Dube syndrome is  
 (A) mutation in folliculin gene  (B) involves chromosome 18  
 (C) autosomal recessive  (D) treatable if diagnosed early
070. UIP pattern on HRCT is seen in  
 (A) IPF  (B) Asbestosis  
 (C) Connective tissue disease  (D) All of the above
071. False about COVID 19 is  
 (A) is a Zoonotic disease  (B) caused by corona virus  
 (C) is a beta sense DNA virus  (D) uses ACE2 receptors for cellular entry
072. Which of the following cause QTc prolongation  
 (A) Bedaquiline  (B) Clofazimine  
 (C) Moxifloxacin  (D) All of the above
073. MGIT [mycobacteria growth indicator tube] contains  
 (A) Middlebrook 7H9  (B) Middlebrook 7H10  
 (C) Middlebrook 7H11  (D) none of the above
074. Zileuton is  
 (A) COX-1 inhibitor  (B) COX-1 inhibitor  
 (C) 5 lipooxygenase inhibitor  (D) Thromboxane inhibitor
075. NSAID that appears to be well tolerated in AIA is  
 (A) diclofenac  (B) mefenamic acid  
 (C) Celecoxib  (D) piroxicam
076. False about nicotine is  
 (A) Euphoriant  (B) Reduce pain perophim  
 (C) Impair cognition  (D) Ameliorats anxiety
077. Steroid dependent asthma is seen in which stage of ABPA  
 (A) Stage 2  (B) Stage 3  
 (C) Stage 4  (D) Stage 5
078. Which of the following is NOT always true about patients with the OHS?  
 (A) Daytime PCO<sub>2</sub> ≥ 45 mm Hg.  (B) BMI > 30 kg/m<sup>2</sup>  
 (C) Worsening PCO<sub>2</sub> and PO<sub>2</sub> with sleep.  (D) AHI ≥ 5/hr.
079. Which EEG waveform is not commonly used to differentiate and classify sleep stages?  
 (A) Alpha  (B) Beta  
 (C) Delta  (D) Sleep spindles.
080. Which of the following is not associated with increased blood eosinophilia count  
 (A) Hypereosinophilic syndrome  (B) Chronic Eosinophilic pneumonia  
 (C) Acute Eosinophilic pneumonia  (D) Simple pulmonary eosinophilia
081. All about pulmonary alveolar microlithiasis is true except  
 (A) Autosomal recessive  
 (B) Accumulation of calcified concretions  
 (C) Associated with calcium metabolism disorder  
 (D) Incidental diagnosis in asymptomatic individual



082. False about extragonadal Germ Cell Tumor is  
 (A) commonly seen in anterior mediastinum (B) 85% are benign  
 (C) More common in males (D) Common in young adult
083. As per ILO classification small rounded opacity with diameter 1.5 to 3 cm is termed as  
 (A) P  (B) Q  
 (C) R (D) S
084. Which of the following is not criteria pollutant  
 (A) SO<sub>2</sub> (B) PM<sub>10</sub>  
 (C) PM<sub>2.5</sub> (D) CO<sub>2</sub>
085. Most common diving related injury is  
 (A) Middle ear barotrauma (B) Decompression sickness  
 (C) Gas embolism (D) Pneumothorax
086. Which of the increases during pregnancy  
 (A) RR  (B) TV  
 (C) TLC (D) FRC
087. Pulmonary Arterial Hypertension is seen in  
 (A) Schistosomiasis (B) Echinococcosis  
 (C) Toxocariasis (D) Filariasis
088. Following is not Hypersensitivity syndrome to Aspergillus exposure  
 (A) Asthma (B) ABPA  
 (C) Aspergilloma (D) Extrinsic Allergic Alveolitis
089. False about Post pneumonectomy syndrome is  
 (A) Common after right lung pneumonectomy  
 (B) Compression of mainstem bronchus  
 (C) Herniation of contralateral lung  
 (D) Patient is asymptomatic
090. Most common pulmonary complication encountered in the post operative surgical patient is  
 (A) Pneumonia  (B) Atelectasis  
 (C) ARDS (D) Aspiration of gastric contain
091. Maximum F<sub>I</sub>O<sub>2</sub> delivered by nonbreathing reservoir mask is  
 (A) 60-70% (B) 70-80%  
 (C) 80-90% (D) 90-100%
092. Number of exposed persons developing disease within the range of incubation period following exposure is  
 (A) attack rate  (B) secondary attack rate  
 (C) incidence (D) virulence
093. Odds ratio measures  
 (A) attributable risk  
 (B) attack rate  
 (C) association between risk factor and outcome  
 (D) relation risk

094. Ability of the test to identify true negatives correctly is  
 (A) Sensitivity (B) Specificity  
 (C) Positive Prediction Value (D) Negative Prediction Value
095. Which of the following is measure of dispersion  
 (A) mode (B) mean  
 (C) standard deviation (D) median
096. Headcheese sign is typically seen in  
 (A) Organising Pneumonia (B) Hypersensitivity Pneumonia  
 (C) Pulmonary Alveolar Proteinosis (D) LAM
097. Motion Related artifact is during HRCT is  
 (A) Streak artifact (B) Star artifact  
 (C) Zebra artifact (D) Stair up artifact
098. Uncommon HRCT finding in NSIP is  
 (A) Ground glass opacity (B) Subpleural sparing  
 (C) Traction bronchiectasis (D) Honey combing
099. Lymph node station not accessible by EBUS is  
 (A) Station 2R (B) Station 4L  
 (C) Station 7 (D) Station 5
100. Highest diagnostic yield for pleural effusion is seen with  
 (A) Closed Pleural biopsy (B) Fluid culture  
 (C) Thoracoscopy (D) Both (A) and (B)
101. Modified Borg category scale has been devised to quantify  
 (A) dyspnea (B) stridor  
 (C) hemoptysis (D) sputum
102. Pneumothorax ex-vacuo occurs in  
 (A) Pulmonary Langerhan's cell histiocytosis (LCH)  
 (B) Lymphangioleiomyomatosis (LAM)  
 (C) Tuberculosis  
 (D) Acute Bronchial Obstruction
103. A 42 year old patient, whose chief complaints are cough and hoarseness, performs a series of FVC efforts, and flow-volume curves are recorded as shown.  
 Which of the following diagnoses seems most likely?



- (A) The patient was malingering (B) Variable extrathoracic obstruction  
 (C) Variable intrathoracic obstruction (D) Fixed airway obstruction

104. The calculation of FRC with the body plethysmograph is based on which law?  
 (A) Dalton's law (B) Poiseuille's law  
 (C) Boyle's law (D) Charles' law
105. For the correct performance of the DLCO by single-breath method (DLCOsb) requires that the subject inspire at least:  
 (A) 90% of the TLC  (B) 85% of the VC  
 (C) 80% of the IC (D) 1–2 times the VT
106. Schilling clinical grading is used in which of the following occupational lung disease?  
 (A) Bagassosis (B) Silicosis  
 (C) Bysinosis (D) Berylliosis
107. Parietal pleura is supplied by  
 (A) intercostal nerve and phrenic nerve (B) phrenic nerve only  
 (C) intercostal nerve only (D) none of the above
108. Funnel chest is also known as  
 (A) Pectus Excavatum (B) Pectus Carinatum  
 (C) Both (A) and (B) (D) None of the above
109. Seashore sign on M-mode Ultrasonography is characteristic of  
 (A) Pulmonary odema (B) Pneumothorax  
 (C) Normal lungs (D) Pleural effusion
110. 'Saber-Sheath' Trachea is seen in patients with  
 (A) Cystic Fibrosis (B) ILD  
 (C) Asthma  (D) Emphysema
111. All of the following are epidermal growth factor receptor tyrosine kinase inhibitor (EGFR TKIs) drugs except  
 (A) Erlotinib (B) Gefitinib  
 (C) Afatinib  (D) Tivantinib
112. Hot tub lung is best related to ?  
 (A) Molds on ceiling (B) Isocyanates  
 (C) Mycobacterium avium complex (D) Cigarette smoking
113. In BAL fluid of normal nonsmoker individual, percentage of Eosinophils of the leukocyte cell differential is  
 (A) < 2 % (B) < 4 %  
 (C) < 6 % (D) < 8 %
114. "Eggshell" pattern of hilar node calcification is seen in ?  
 (A) Asbestosis (B) Berylliosis  
 (C) Silicosis (D) Coal worker's pneumoconiosis (CWP)
115. Which of the following is not a feature of 'Yellow nail syndrome'  
 (A) Lymphedema (B) Pleural effusion  
 (C) Mediastinal lymphadenopathy (D) Yellow discoloration of nails
116. Which lobe of lung is involved in "Dry" bronchiectasis ?  
 (A) Upper lobe (B) Middle lobe  
 (C) Lower lobe (D) Any of the above

117. In echocardiography, McConnell's sign is specific for which of the following ?  
 (A) HOCM (B) Pulmonary embolism  
 (C) Acute rheumatic fever (D) Infective endocarditis
118. At what lung volume does the outward recoil of the chest wall and the inward elastic recoil of the lung are of equal magnitude  
 (A) Expiratory reserve volume (B) Functional residual capacity  
 (C) Residual volume (D) Tidal volume
119. Most common location of pulmonary artery venous malformation.  
 (A) Middle lobe (B) Upper lobe  
 (C) Lower lobe (D) Equal evidence in all lobes
120. Pulse oximetry works under which of the following principle  
 (A) Bernoulli's principle (B) Beer's law  
 (C) Charles law (D) Pascal law
121. SARS-related Coronavirus included in  
 (A) Alphacoronavirus (B) Betacoronavirus  
 (C) Gammacoronavirus (D) Deltacoronavirus
122. Coronavirus are having  
 (A) Positive sense RNA genome (B) Negative sense RNA genome  
 (C) Positive sense DNA genome (D) Negative sense DNA genome
123. Caplan's syndrome is  
 (A) Rheumatoid arthritis + anaemia (B) Rheumatoid arthritis + splenomegaly  
 (C) Rheumatoid arthritis + pneumoconiosis (D) Rheumatoid arthritis + bronchial asthma
124. In a patient with diffuse alveolar hemorrhage, the expected finding on bronchoalveolar lavage would be  
 (A) Atypical hyperplastic type II pneumocytes  
 (B) Ferruginous bodies  
 (C) Hemosiderin laden macrophages  
 (D) Lymphocytosis with an elevated CD4:CD8 ratio
125. Alpha-1 antitrypsin is primarily derived from  
 (A) lung fibroblast (B) hepatocyte  
 (C) renal tubular cell (D) None of the above
126. Shrinking lungs syndrome is seen in which of the following condition  
 (A) SLE (B) Rheumatoid arthritis  
 (C) Bullous lung disease (D) Polymyositis
127. In a normal lung, which of the following is true  
 (A) FRC is always greater than CC (B) CC is always greater than FRC  
 (C) FRC and CC are equal (D) None of the above
128. Golden S sign on chest xray is seen in  
 (A) right Upper Lobe collapse due to centrally located mass  
 (B) right Upper Lobe collapse due to peripherally located mass  
 (C) left Upper Lobe collapse due to centrally located mass  
 (D) left Upper Lobe collapse due to peripherally located mass

129. The most common disorder associated with HOA is  
 (A) Mesothelioma of pleura (B) Fallots tetralogy  
 (C) Bronchiectasis (D) Bronchogenic carcinoma
130. Seizure may be produced by all of the following anti tubercular drugs except  
 (A) Fluoroquinolones (B) Isoniazide  
 (C) Cycloserine (D) Ethionamide
131. Which one of the following is not a paraneoplastic syndrome in bronchogenic carcinoma  
 (A) Cachexia (B) Clubbing  
 (C) Haemoptysis (D) SIADH
132. Expectoration of chalky sediments with gritty particles are diagnostic of  
 (A) Pulmonary alveolar proteinosis (B) Bronchorrhea  
 (C) Broncholithiasis (D) Melanoptysis
133. Silo filers disease is inhalation of  
 (A) Sulphur dioxide (B) Nitogen dioxide  
 (C) Hydrogen fluoride (D) Chlorine
134. Which of the following is not a component of ‘Samter’s Triad’ ?  
 (A) Bronchial Asthma (B) Aspirin sensitivity  
 (C) Hypersensitivity pneumonitis (D) Nasal polyps
135. Where in the respiratory tracts the particles of sizes 20 to 30  $\mu\text{m}$  in diameter will most likely be deposited ?  
 (A) Alveolar space (B) Nose and nasopharynx  
 (C) Respiratory bronchioles (D) Terminal bronchioles
136. In the treatment of a patient with ARDS by mechanical ventilation, the addition of PEEP typically results in:  
 (A) Reduced arterial PO<sub>2</sub>  
 (B) Reduced FRC  
 (C) Reduced physiologic dead space  
 (D) Tendency to reduce venous return to the thorax
137. Line Probe Assay (LPA) provides rapid diagnosis of \_\_\_\_\_  
 (A) R resistance (B) H resistance  
 (C) Class FQ and class SLID resistance (D) All of the above
138. When pneumothorax develops during positive pressure ventilation  
 Which of the following measures should be taken immediately?  
 (A) Pleural puncture and aspiration of the pleural air  
 (B) Double-lumen intubation and reduction of positive end-expiratory pressure  
 (C) Insertion of a small-bore chest tube  
 (D) Surgical closure of the leak by video-assisted thoracoscopic surgery
139. All of the following are radiological features of Langerhans’ cell histiocytosis of the lung except  
 (A) Diffuse reticulonodular opacities (B) Upper zone cyst  
 (C) Costophrenic angle involvement (D) Preservation of lung volume

140. In pulmonary Langerhan's cell Histiocytosis under Electron microscopy, Birbeck granules seen are  
 (A) Bilaminar (B) Trilaminar  
 (C) Pentilaminar (D) Hexalaminar
141. Which of the following hypersensitivity pneumonitis is NOT caused by Thermophilic actinomycetes ?  
 (A) Farmer's Lung disease (B) Mushroom worker's disease  
 (C) Potato riddler's lung  (D) Cheese worker's disease
142. As per chest radiograph staging of pulmonary sarcoidosis, when interstitial infiltrates are seen with evidence of hilar adenopathy, the chest radiograph is designated as  
 (A) Stage I  (B) Stage II  
 (C) Stage III (D) Stage IV
143. Serum ACE levels are elevated in  
 (A) Sarcoidosis (B) Lymphoma  
 (C) Primary biliary cirrhosis  (D) All of the above
144. Heerfordt syndrome is seen in  
 (A) Endocrine Sarcoidosis  (B) Exocrine Sarcoidosis  
 (C) Renal sarcoidosis (D) Genitourinary Sarcoidosis
145. Bronchoalveolar lavage is opaque and has a milky or waxy appearance and develops a thick layer of sediment upon standing overnight. Such a finding is consistent with which of the following diseases ?  
 (A) Pulmonary Alveolar Proteinosis (B) Alveolar microlithiasis  
 (C) Pulmonary siderosis (D) Bronchoalveolar carcinoma
146. Needle biopsy of the pleura is done with all of the following needles EXCEPT  
 (A) Abraham's needle (B) Raja needle  
 (C) Salah needle (D) Cope needle
147. In performing chest X-ray (PA view), the tube film distance should be  
 (A) 8 feet  (B) 6 feet  
 (C) 4 feet (D) 2 feet
148. Commonest posterior mediastinal tumor in adult is  
 (A) Neurofibroma (B) Lymphoma  
 (C) Teratoma (D) Metastatic carcinoma
149. Most commonly affected Cranial nerve in Sarcoidosis is  
 (A) II<sup>nd</sup> (B) V<sup>th</sup>  
 (C) VII<sup>th</sup> (D) X<sup>th</sup>
150. Mendelson's syndrome refers to  
 (A) Radiation pneumonitis (B) Hypersensitivity pneumonitis  
 (C) Chemical pneumonitis (D) Drug induced pneumonitis
151. Which of the following is a phosphodiesterase Type 4 inhibitors ?  
 (A) Sildenafil  (B) Roflumilast  
 (C) Montelukast (D) Acetazolamide

152. Tocilizumab blocks which inflammatory protein  
 (A) IL-5 (B) IL-6  
 (C) IL-4 (D) IL-8
153. Dupilumab is  
 (A) Anti-IL 4 (B) Anti-IL 5  
 (C) Anti-IL 2 (D) Anti-IL 8
154. Hamman's sign is seen in  
 (A) Pneumomediastinum (B) Deep Venous Thrombosis  
 (C) Pulmonary embolism (D) Pulmonary hypertension
155. Hepatopulmonary syndrome is characterized by  
 (A) normal alveolar–arterial oxygen gradient  
 (B) widened alveolar–arterial oxygen gradient  
 (C) decreased alveolar–arterial oxygen gradient  
 (D) none of the above
156. Bosentan is a  
 (A) ET<sub>A</sub> antagonist (B) ET<sub>B</sub> antagonist  
 (C) Both (A) and (B) (D) None of the above
157. All of the following are oral factor Xa inhibitors except  
 (A) Apixban (B) Rivaroxaban  
 (C) Argatroban (D) Edoxaban
158. Atoll sign on HRCT is seen in  
 (A) chronic eosinophilic pneumonia (B) cryptogenic organizing pneumonia  
 (C) granulomatosis with polyangiitis (D) all of the above
159. All of the following is seen in Sjögren syndrome except  
 (A) xerophthalmia (B) xerostomia  
 (C) polyarthritis (D) a strong male predominance
160. The most common pulmonary complication of scleroderma is  
 (A) Pulmonary hypertension (B) Interstitial lung disease  
 (C) pleural fibrosis (D) aspiration pneumonia
161. Nintedanib is a triple tyrosine kinase inhibitor with efficacy on  
 (A) fibroblast growth factor (FGF) (B) vascular endothelial growth factor (VEGF)  
 (C) platelet-derived growth factor (PDGF) (D) all of the above
162. CF demonstrates which pattern of inheritance  
 (A) autosomal-recessive (B) autosomal-dominant  
 (C) X-linked (D) mitochondrial mutations
163. Excessive dynamic airway collapse (EDAC) is commonly seen with  
 (A) COPD (B) asthma  
 (C) obesity (D) All of the above
164. Fagerstrom test is for  
 (A) Nicotine dependence (B) Alcohol dependence  
 (C) Drug dependence (D) None of the above

165. The most common type of benign tracheal tumor is  
 (A) papillomas (B) chondromas  
 (C) hemangiomas (D) adenomas
166. Which of the following is not a ANCA associated vasculitis ?  
 (A) Granulomatosis with polyangiitis  
 (B) Microscopic polyangiitis  
 (C) Eosinophilic granulomatosis with polyangiitis  
 (D) Behcet's Disease
167. 'Metal Fume Fever' is associated with inhalation of  
 (A) Zinc chloride (B) Teflon  
 (C) Mercuric chloride (D) Zinc oxide
168. Regarding diaphragm paralysis, which is false  
 (A) paradoxical Respiration  
 (B) a 40% or greater reduction in VC in the supine compared to upright position in bilateral diaphragm paralysis  
 (C) bilateral paralysis is more common than Hemidiaphragm paralysis  
 (D) absence of phrenic latency in bilateral diaphragm paralysis
169. As per International Association for the Study of Lung Cancer, Regional Lymph Node Station 5 is  
 (A) Para-aortic (B) Subaortic  
 (C) Prevascular (D) Pretracheal
170. Apneas are generally defined as an episode of breathing cessation lasting at least  
 (A) 10 seconds (B) 20 seconds  
 (C) 30 seconds (D) 40 seconds
171. All of the following are component parameters of CURB-65 except  
 (A) Confusion (B) Respiratory rate >30 breaths per minute  
 (C) Urea >7 mM/L (D) Age 65 years and below
172. Exposure to mouse droppings may be associated with pneumonia caused by  
 (A) Histoplasma (B) Hantavirus  
 (C) Legionella pneumophila (D) Mycobacterium tuberculosis
173. Which of the following anti-tubercular drug causes hypothyroidism  
 (A) Ethambutol (B) Ethionamide  
 (C) Para-aminosalicylic acid (PAS) (D) Both (B) and (C)
174. Which of the following is the most active anti-tubercular drug against slowly multiplying bacilli found inside the macrophages  
 (A) Isoniazid [H] (B) Rifampicin [R]  
 (C) Ethambutol [E] (D) Pyrazinamide [Z]
175. Pleural pressure is most negative at  
 (A) Lower Zones (B) Middle zones  
 (C) Apices of lungs (D) Equal all over



176. Putrid odor of sputum is due to the anaerobic organisms' production of  
 (A) Short-chain volatile fatty acids                      (B) Medium-chain volatile fatty acids  
 (C) Long-chain volatile fatty acids                      (D) All of the above
177. All of the following are clinical features of Nicotine Withdrawal EXCEPT  
 (A) Difficulty concentrating                      (B) Insomnia  
 (C) Decreased appetite and weight loss                      (D) Dysphoric or depressed mood
178. Congenital bronchial cartilage deficiency is seen in  
 (A) Mounier-Kuhn syndrome                       (B) Williams-Campbell syndrome,  
 (C) Marfan syndrome                      (D) Kartagener syndrome
179. Comet-tail sign on HRCT is seen in  
 (A) Rounded atelectasis                      (B) Linear atelectasis  
 (C) Both (A) and (B)                      (D) None of the above
180. How much is normal anatomical dead space in a adult healthy man approximately  
 (A) 50 ml                       (B) 150 ml  
 (C) 250 ml                      (D) 350 ml
181. Which of the following disease involves upper lobe of lungs  
 (A) Asbestosis  
 (B) Connective tissue disease related interstitial lung disease  
 (C) Idiopathic pulmonary fibrosis  
 (D) Langerhans cell histiocytosis
182. All of the followings are Benign patterns of calcification on Chest CT,Except  
 (A) central                      (B) diffuse  
 (C) popcorn                       (D) eccentric
183. Perfinidone has  
 (A) Anti-inflammatory properties only                      (B) Antioxidant properties only  
 (C) Antifibrotic properties only                       (D) All of the above
184. Pulmonary hemorrhage is seen with  
 (A) Bevacizumab                      (B) Cetuximab  
 (C) Erlotinib                      (D) Gefitinib
185. The appearance of pulmonary infiltrates as the "photographic negative of pulmonary edema." is characteristic for  
 (A) Chronic eosinophilic pneumonia                      (B) Allergic bronchopulmonary aspergillosis  
 (C) Idiopathic Pulmonary Fibrosis                      (D) Bronchiectasis
186. All of the following are high-flow or fixed-performance oxygen devices except  
 (A) Air-entrainment masks                      (B) High flow generator  
 (C) High flow nasal cannulae                       (D) Reservoir masks
187. All of the following are true regarding clinical features of Catamenial Asthma except  
 (A) Asthma is worse in premenstrual phase  
 (B) Have more severe asthma  
 (C) Low body mass index  
 (D) Often have dysmenorrhea, premenstrual symptoms

188. Which of the following drugs used in treatment of asthma has recently been warned to be associated with risk of serious mental health adverse effect
- (A) Salbutamol (B) Terbutaline  
(C) Montelukast (D) Nedocromil
189. Fractional concentration of exhaled Nitric Oxide (FeNO) is higher in all of the following conditions except
- (A) Asthma with type II airway inflammation  
(B) Allergic Rhinitis  
(C) Atopy  
(D) Neutrophilic Asthma
190. Which of the following is short acting anti-cholinergics
- (A) Glycopyrronium (B) Tiotropium  
(C) Acclidinium (D) Ipratropium
191. All of the following factors strongly support of initiation of inhalational corticosteroid (ICS) in combination of other bronchodilators in COPD EXCEPT
- (A) Blood eosinophils >300 cells/microL  
(B) History of, or concomitant asthma  
(C)  $\geq 2$  moderate exacerbations per year despite appropriate long acting bronchodilator maintenance therapy  
(D) Repeated pneumonia events
192. As per GOLD 2020 guidelines, The classification of airflow limitation severity in COPD, GOLD 4 is
- (A) FEV1 < 50% predicted (B) FEV1 < 35% predicted  
(C) FEV1 < 30% predicted (D) FEV1 < 40% predicted
193. As per Berlin definition of ARDS ,in moderate ARDS PaO<sub>2</sub>/FIO<sub>2</sub> ratio is
- (A)  $\leq 300$  to  $>200$  with PEEP or CPAP  $\geq 5$  cm H<sub>2</sub>O  
(B)  $\leq 300$  to  $>200$  without PEEP or CPAP  $\geq 5$  cm H<sub>2</sub>O  
(C)  $\leq 200$  to  $>100$  with PEEP or CPAP  $\geq 5$  cm H<sub>2</sub>O  
(D)  $\leq 200$  to  $>100$  without PEEP or CPAP  $\geq 5$  cm H<sub>2</sub>O
194. Lung volume reduction surgery (LVRS) should NOT be done in all of the following conditions except
- (A) FEV1 less than 20% predicted  
(B) emphysema predominantly in the upper lung zones and low exercise capacity  
(C) diffusing capacity less than 20% predicted  
(D) diffuse homogeneous emphysema on HRCT
195. Greenberger and Patterson criteria is used in diagnosis of
- (A) Chronic eosinophilic pneumonia (B) Allergic bronchopulmonary aspergillosis  
(C) Bullous lung diseases (D) Acute eosinophilic pneumonia

196. All of the following shift the oxygen dissociation curve to the right except  
(A) Increase in temperature  
(B) Increase in carbon dioxide pressure  
(C) Increase in 2, 3-diphosphoglycerate(2, 3-DPG)  
**(D) Increase in pH**
197. Which of the following is not seen in LAM  
(A) cystic lung lesions (B) abdominal angiomyolipomas  
(C) lymphatic tumors **(D) predominantly affecting men**
198. Anti-scl70 antibody is seen in  
**(A) Scleroderma** (B) Rheumatoid arthritis  
(C) ANCA associated vasculitis (D) Polymyositis
199. CREST syndrome is seen in  
(A) rheumatoid arthritis (B) polymyositis-dermatomyositis  
(C) systemic lupus erythematosus **(D) scleroderma**
200. Which of the following is not a bad prognostic factor for Parapneumonic effusion and empyma  
(A) Pleural fluid pH < 7  
(B) Pleural fluid LDH > 3 times upper normal limit for serum  
**(C) Pleural fluid glucose above 40 mg/dL**  
(D) Pleural fluid loculated