

## AMW

### PROVISIONAL ANSWER KEY [CBRT]

Name of The Post	Associate Professor, Tuberculosis and Chest Diseases, General
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### 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. Diffusing capacity of the lungs for carbon monoxide (DLCO) is increased in all the following EXCEPT  
(A) Pulmonary alveolar haemorrhage (B) Emphysema  
(C) Mueller maneuver (D) Polycythaemia
002. Which one among the following is obligatory for diagnosing ABPA under international society for human and animal mycology (ISHAM) criteria  
(A) Total IgE >1000 IU/ml  
(B) Eosinophils >500 cells/uL  
(C) Radiological features consistent with ABPA  
(D) Central bronchiectasis
003. In tissue microscopy, acute angle branching, septate, conidial head morphology is suggestive of  
(A) Cryptococcus neoformans (B) Blastomyces dermatides  
(C) Aspergillus sp (D) Candida sp
004. In patients with risk class IV in PSI scoring system (91-130 points), the mortality rate is  
(A) 27% (B) 9%  
(C) 0.9% (D) 1.25%
005. Shorter MDR TB Regimen includes all except  
(A) Clofazimine (B) Cycloserine  
(C) Ethambutol (D) INH
006. Following is not a milestone for 2020 in End TB strategy  
(A) Reduction in TB incidence by 25%  
(B) 35% reduction of death by 2020  
(C) Treat 40 million TB patients  
(D) 100 % of TB patients not facing catastrophic costs
007. A 56-year-old woman with a history of COPD is admitted to hospital with respiratory deterioration. In the medical ward she is tiring despite maximal medical treatment including nebulised salbutamol, intravenous aminophylline and corticosteroids. She has a respiratory rate of 30 breaths per minute and is alert. Arterial blood gas analysis shows: pH 7.24, PaCO<sub>2</sub> 9.8 kPa (67 mm Hg) and PaO<sub>2</sub> 8.4 kPa (64 mm Hg) on 40% oxygen. Mechanical ventilation is being considered. Which of the following statements is FALSE?  
(A) Ventilated COPD patients have lower ICU survival rates than most other medical ICU patients.  
(B) Noninvasive ventilation is appropriate for this patient.  
(C) PaCO<sub>2</sub> is a better predictor of the need for mechanical ventilation than PaO<sub>2</sub>.  
(D) Pre-admission health status is an important determinant of survival.
008. The commonest tumour seen in those exposed to Asbestos is  
(A) Bronchogenic Carcinoma (B) Pulmonary lymphoma  
(C) Malignant Mesothelioma (D) Benign Mesothelioma
009. The dose of inhaled medication in a seven year old child with asthma when compared to an adult of same grade of severity is  
(A) One fourth of the adult dose (B) Half of adult dose  
(C) Equal to that of adult dose (D) Depends on the weight of the child

010. Silicosis is associated with all the following EXCEPT  
 (A) Tuberculosis (B) COPD  
 (C) Malignancy (D) Sarcoid like granulomas
011. Which of the following does not indicate poor prognosis in malignant pleural mesothelioma?  
 (A) Non-epithelial sub type  
 (B) Elevated LDH  
 (C) Increased lymphocyte to neutrophil ratio  
 (D) Thrombocytopenia
012. Which of the following has not been identified to be a factor that increases the chance for recurrence in case of a primary spontaneous pneumothorax?  
 (A) Radiographic evidence of pulmonary fibrosis  
 (B) Younger age of patient  
 (C) Presence of bullae in the chest X-ray  
 (D) Occurrence of complete atelectasis of lung due to the pneumothorax
013. Which of the following is not true for pleural effusion secondary to esophageal pathology?  
 (A) Perforation of the mid-oesophagus usually results in a left sided pleural effusion.  
 (B) Low pleural fluid pH in oesophageal rupture is due to bacterial metabolism in the pleural space and not due to the acidity of the gastric contents.  
 (C) Pleural effusion secondary to oesophageal rupture is associated with elevated levels of salivary amylase  
 (D) Pleural effusion associated with sclerotherapy of oesophageal varices usually resolves spontaneously without intervention.
014. As per Global TB Report 2019, estimate of MDR/RR TB in new and previously treated TB cases is \_\_\_\_\_% & \_\_\_\_\_% respectively  
 (A) 2 & 16 (B) 3.4 & 18  
 (C) 3 & 17 (D) 2.4 & 17
015. According to 2019 ATS/IDSA CAP guidelines, the first option for outpatients without comorbidities or risk factors for resistant bacteria, the first option is  
 (A) Amoxicillin (B) Azithromycin  
 (C) Doxycycline (D) Amoxiclav
016. Metal fume fever is common in chronic poisoning with:  
 (A) Thallium (B) Zinc  
 (C) Aluminium (D) Arsenic
017. A flow volume loop is shown with plateauing of the inspiratory loop only. The most likely cause is  
 (A) Variable extrathoracic obstruction (B) Fixed intrathoracic obstruction  
 (C) Variable intrathoracic obstruction (D) Small airways narrowing
018. PAIR procedure is used in the treatment of  
 (A) Empyema (B) Hydatid cyst  
 (C) Pulmonary amebiasis (D) Lung abscess
019. Type III Respiratory failure is due to  
 (A) Hypoperfusion (B) Emphysema  
 (C) Atelectasis (D) Muscle paralysis

020. Adeno carcinoma lung shows TTF1 positivity in  
 (A) 90% of mucinous type (B) 60% of mucinous type  
 (C) Seen in all cases (D) Seen only in 30% mucinous type
021. Which of the following antibodies are not usually seen in paraneoplastic limbic encephalitis  
 (A) Anti-HU (B) Anti-CRMP5  
 (C) Anti-MA (D) Anti yo
022. A malignancy is termed adenosquamous when well differentiated adenocarcinoma and squamous carcinoma component exceeds  
 (A) 10% of each component  
 (B) 20% of each  
 (C) 10% of adenocarcinoma and 20% squamous  
 (D) At least 10% adenocarcinoma with at least 50% of rest being squamous carcinoma
023. Necitumumab is a/an  
 (A) EGFR inhibitor (B) RAF inhibitor  
 (C) MEK inhibitor (D) Mtor inhibitor
024. Strongest predictor for EGFR mutation status is  
 (A) Asian origin (B) Female sex  
 (C) Smoking History (D) European origin
025. A new diagnostic biomarker for pulmonary embolus has been identified. Which of the following parameters measures the proportion of patients with positive test who have a pulmonary embolism.  
 (A) Odds ratio (B) Positive predictive value  
 (C) Relative risk (D) Sensitivity
026. Principle of pulse oxymeter is  
 (A) Starlings law (B) Laplace law  
 (C) Beer's law (D) None of the above
027. Oxygenation index is  
 (A)  $(\text{mean airway pressure} \times \text{FiO}_2) \div \text{PaO}_2 \times 100$   
 (B)  $(\text{mean airway pressure} \times \text{PaO}_2) \div \text{FiO}_2 \times 100$   
 (C)  $(\text{mean airway pressure} + \text{PaO}_2) \div \text{FiO}_2 \times 100$   
 (D)  $(\text{mean airway pressure} + \text{FiO}_2) \div \text{PaO}_2 \times 100$
028. Mallampati class 1 is  
 (A) Soft palate, fauces, uvula and tonsillar pillars visible  
 (B) Soft palate, fauces and uvula visible  
 (C) Soft palate and base of uvula visible  
 (D) Soft palate only visible
029. Preferred position for visualization of the vocal cord is  
 (A) Sitting position (B) Sniffing position  
 (C) Rose's position (D) None of the above

030. Which of the following is not a feature of SIRS  
(A) Temperature > 38°C (B) Temperature < 36°C  
(C) Heart rate < 90 beats /min (D) Respiratory rate > 20 breaths per min
031. The late phase of ARDS is characterized by all of the following except  
(A) Increased dead space fraction (B) Pulmonary hypertension  
(C) Increased lung compliance (D) High minute ventilation requirement
032. Diffuse alveolar damage is caused by  
(A) Pneumonia (B) Near Drowning  
(C) Both (A) and (B) (D) None of the above
033. Shock lung is characterized by  
(A) Alveolar proteinosis (B) Diffuse interstitial inflammation  
(C) Diffuse pulmonary hemorrhage (D) Diffuse alveolar damage
034. True statement regarding ARDS  
(A) Hall mark of ARDS is hypoxemia that is resistant to oxygen therapy  
(B) Large right to left shunt  
(C) Non cardiogenic pulmonary edema  
(D) All of the above
035. Most common extrapulmonary cause of ARDS  
(A) Burns (B) Pancreatitis  
(C) Transfusion (D) Sepsis
036. Auto PEEP refers to  
(A) Positive pressure within the alveoli at the end of expiration that has not been generated by ventilator  
(B) Negative pressure within the alveoli at the end of expiration that has not been generated by ventilator  
(C) Negative pressure within the alveoli at the end of inspiration that has not been generated by ventilator  
(D) Positive pressure within the alveoli at the end of inspiration that has not been generated by ventilator
037. What is the PO<sub>2</sub> (in mm Hg) of moist inspired gas of a climber on the summit of Mt. Everest (assume pressure is 247 mm Hg)?  
(A) 32 (B) 42  
(C) 52 (D) 62
038. Using Fick's law of diffusion of gases through a tissue slice, if gas X is 4 times as soluble and 4 times as dense as gas Y, what is the ratio of the diffusion rates of X to Y?  
(A) 0.25 (B) 0.5  
(C) 2 (D) 4
039. Which among the following is not an AIDS defining diagnosis?  
(A) Pneumocystis pneumonia (B) Tuberculosis  
(C) Histoplasmosis (D) Coccidioidomycosis

040. The technique used to measure airway resistance is  
 (A) Pressure flow technique (B) Body plethysmograph interrupter technique  
 (C) End-inspiratory (D) Oscillating air flow
041. Mechanism of action of phosphodiesterase inhibitors  
 (A) It promotes breakdown of cAMP (B) It prevents breakdown of cAMP  
 (C) It increases cAMP (D) It inactivates cAMP
042. Monte disease is  
 (A) Acute mountain sickness (B) Chronic mountain sickness  
 (C) High altitude pulmonary oedema (D) Sea sickness
043. Which of the following statements is false regarding assessing the safety of air travel in patients with respiratory disease?  
 (A) Previous air travel intolerance with significant respiratory symptoms requires further evaluation  
 (B) Oxygen is not required if  $\text{PaO}_2 \geq 50$  mm Hg  
 (C) Major hemoptysis is a contraindication for commercial air travel  
 (D) Oxygen requirement at sea level at a flow rate of 2L/min is a contraindication to air travel.
044. Concerning the single-breath nitrogen test for uneven ventilation:  
 (A) The slope of the alveolar plateau is reduced in chronic bronchitis compared with normal.  
 (B) The slope occurs because well-ventilated units empty later in expiration than do poorly ventilated units.  
 (C) The last exhaled gas comes from the base of the lung.  
 (D) A similar procedure can be used to measure the anatomic dead space.
045. Concerning acclimatization to high altitude:  
 (A) Hyperventilation is of little value  
 (B) Polycythemia occurs rapidly  
 (C) There is a rightward shift of the  $\text{O}_2$  dissociation curve at extreme altitudes  
 (D) Changes in oxidative enzymes occur inside muscle cells
046. Concerning the central chemoreceptors:  
 (A) They are located near the dorsal surface of the medulla.  
 (B) They respond to both the  $\text{PCO}_2$  and the  $\text{PO}_2$  of the blood.  
 (C) They are activated by changes in the pH of the surrounding extracellular fluid.  
 (D) For a given rise in  $\text{PCO}_2$ , the pH of cerebrospinal fluid falls less than does that of blood.
047. Concerning the pressure-volume behaviour of the lung:  
 (A) Compliance decreases with age.  
 (B) Filling an animal lung with saline decreases compliance.  
 (C) Removing a lobe reduces total pulmonary compliance.  
 (D) Absence of surfactant increases compliance.
048. Regular use of SABA is associated with following adverse effect except  
 (A) Decreased broncho protection (B) Receptor down regulation  
 (C) Increased allergic response (D) None of the above

049. Dispensing of \_\_\_\_\_ canister per year is associated with higher risk of death  
 (A)  $\geq 6$  (B)  $\geq 10$   
 (C)  $\geq 8$  (D) None of the above
050. STEP 1 controller medication in asthma  
 (A) As needed low dose ICS-formoterol (B) Low dose ICS when SABA is not effective  
 (C) As needed in SABA (D) Both (A) and (B)
051. STEP 4 controller medication in adult asthma  
 (A) Low dose corticosteroid (B) High dose ICS  
 (C) Medium dose ICS + LTRA (D) High dose ICS add on tiotropium
052. Preferred STEP 5 reliever medication in adult asthma  
 (A) As needed medium dose ICS + formoterol  
 (B) As needed low dose ICS + formoterol  
 (C) As needed OCS + formoterol  
 (D) As needed medium dose ICS + salmeterol
053. Factors which predict good asthma response to anti IGE are all except  
 (A) Blood eosinophil  $\geq 260$  per micro litre (B) FeNO  $\leq 20$  ppb  
 (C) Allergen driven symptoms (D) Childhood onset asthma
054. COPD patient who continues smoking have an additional loss of FEV1 per year  
 (A) 5 ml (B) 7 ml  
 (C) 10 ml (D) 15 ml
055. Severe alpha 1 AT deficiency usually may result in  
 (A) COPD (B) Panniculitis  
 (C) Cirrhosis (D) All of the above
056. Most potent [on molar basis] euphoria inducing agent among the following  
 (A) Cocaine (B) Nicotine  
 (C) Amphetamine (D) Morphine
057. Bleb is  
 (A) Collection of air within the visceral pleura  
 (B) Confined by connective tissue septa within the lungs  
 (C) Epithelial lined cavities  
 (D) None of the above
058. Which among the following is a secondary bulla  
 (A) Vanishing lung syndrome (B) Single giant bulla  
 (C) Bullous lung disease (D) None of the above
059. Contraindication for classical bullectomy  
 (A) Age  $< 50$  years (B)  $> 10\%$  weight loss  
 (C) FEV  $< 50\%$  (D) Ex-smoker
060. Sweat glands of patient with cystic fibrosis usually manifest  
 (A) histologic changes (B) functional abnormalities  
 (C) Both (A) and (B) (D) None of the above

061. FeNO is not elevated in  
 (A) Atopy (B) Allergic rhinitis  
 (C) Neutrophilic asthma (D) Eczema
062. Adult onset asthma is characterised by all except  
 (A) positive skin prick test (B) aspirin sensitivity  
 (C) nasal polyps (D) All of the above
063. Drugs that worsen asthma are all except  
 (A) Beta blockers (B) ACE inhibitor  
 (C) Aspirin  (D) Angiotensin receptor blockers
064. All about pressurised MDI are correct except  
 (A) High oropharyngeal deposition  (B) Easy hand mouth co-ordination  
 (C) Propellant may cause cold Freon effect (D) Difficult to assess empty canister
065. All of the following are recommended for the treatment of asthma exacerbation except  
 (A) Inhaled SABA (B) Controlled O<sub>2</sub> therapy  
 (C) Systemic steroid  (D) Antibiotic
066. Least responsive to inhaled cortico steroid  
 (A) Allergic asthma (B) Non allergic asthma  
 (C) Adult onset asthma (D) Asthma with obesity
067. A 45 year old woman has been presenting with episodic attacks of breathlessness over last 15 years and on and off haemoptysis. Her chest X-ray demonstrated perihilar bronchiectasis. What would be the most likely diagnosis  
 (A) IPF  (B) ABPA  
 (C) Extrinsic allergic alveolitis (D) Sarcoidosis
068. Side effect of salbutamol  
 (A) Hypokalemia (B) Hypophosphatemia  
 (C) Inappropriate ADH secretion (D) Hyponatremia
069. All of the following are clinical features of nicotine withdrawal except  
 (A) Insomnia  (B) Weight loss  
 (C) Depression (D) Difficulty in concentrating
070. All of the following are features of obstructive bronchiolitis except  
 (A) Onset at younger age (B) H/o acute fume exposure  
 (C) Seen after lung transplantation  (D) CT on expiration shows hyper dense area
071. All are long acting beta 2 agonist except  
 (A) Indacaterol (B) Arformoterol  
 (C) Olodaterol  (D) Albuterol
072. LAMA having 24 hour action  
 (A) Oxitropium (B) Glycopyronium  
 (C) Acledinium bromide  (D) Umiclidinium



073. In COPD, ICS can be initiated in combination with long acting bronchodilators in the following situations except
- (A) H/o hospitalization for exacerbation of COPD  
 (B) Repeated pneumonia event  
 (C) Blood eosinophil > 300 cells / microliter  
 (D) H/o concomitant asthma
074. Monitoring of physical activity can be conducted using
- (A) Accelerometer (B) Speedometer  
 (C) Manometer (D) Oscillometer
075. Which vitamin is useful in reducing COPD exacerbation
- (A) Vitamin C  (B) Vitamin D  
 (C) Thiamine (D) Biotin
076. Long term O<sub>2</sub> therapy means, administration of O<sub>2</sub> for
- (A) > 15 hours / day (B) 10 - 15 hour / day  
 (C) 6 - 12 hours /day (D) None of the above
077. Which increases the survival in patient with severe chronic resting arterial hypoxemia
- (A) LABA + LAMA + ICS  (B) Long term O<sub>2</sub> therapy  
 (C) NIV (D) None of the above
078. The median survival for lung transplantation in COPD patient is
- (A) 7 yrs in bilateral lung transplant and 5 yrs in single lung transplant  
 (B) 5 yrs in bilateral lung transplant and 7 yrs in single lung transplant  
 (C) 7 yrs in bilateral lung transplant and 10 yrs in single lung transplant  
 (D) 10 yrs in bilateral lung transplant and 7 yrs in single lung transplant
079. Indication for ICU admission for COPD exacerbation are the following except
- (A) Severe dyspnoea unresponsive to initial treatment  
 (B) Need for sedation or narcotic pain control  
 (C) Severe COPD  
 (D) Change in mental status
080. Most common cause of secondary spontaneous pneumothorax
- (A) COPD (B) Chronic asthma  
 (C) Pulmonary TB (D) ILD
081. LVRS can be performed in COPD patient with
- (A) FEV1 < 20%  
 (B) Homogenous disease  
 (C) Lower lobe disease and low exercise capacity  
 (D) Both (A) and (C)
082. Which is not an indication for inhaled cortico steroid
- (A) COPD (B) Asthma  
 (C) Ulcerative colitis  (D) None of the above

083. % of patients presenting with haemoptysis in bronchiectasis  
 (A) 20 - 40 (B) 30 - 50  
 (C) 60 - 90 (D) 40 - 70
084. Organism which causes bronchiectasis  
 (A) Strep. Pneumonia (B) Moraxella  
 (C) H. Influenza (D) Staph. Aureus
085. Which is probably not an etiology for bronchiectasis  
 (A) PTB (B) Aspiration  
 (C) COPD (D) Rheumatoid arthritis
086. Dose of streptomycin aerosol in CF-bronchiectasis  
 (A) 75 mg BD (B) 75 mg tid  
 (C) 150 mg BD (D) 150 mg tid
087. Dose of oral prednisone in ABPA  
 (A) 0.05 - 0.1 mg/kg/day (B) 0.1 - 0.5 mg/kg/day  
 (C) 0.5 - 1 mg/kg/day (D) None of the above
088. Roflumilast is a  
 (A) PDE4 inhibitor (B) PDE5 inhibitor  
 (C) IL5 inhibitor (D) IL4 inhibitor
089. Which one is not the feature of Kartagener's syndrome  
 (A) Infertility (B) Mental retardation  
 (C) Bronchiectasis (D) Dextrocardia
090. During sleep apnoea there occurs a temporary pause in breathing for  
 (A) 30s (B) 20s  
 (C) 40s (D) 10s
091. Transitional bronchiole is  
 (A) gen 14 (B) gen 15  
 (C) gen 16 (D) gen 17
092. Marker of type 1 cells  
 (A) sp A (B) CD 44  
 (C) Alkaline phosphates (D) Aquaporin 5
093. Major population of human pulmonary parenchyma consists of  
 (A) Alveolar epithelial cells (B) Endothelium  
 (C) Interstitial cells (D) Alveolar macrophages
094. Which of the following is not a muscle of respiration  
 (A) Trapezius (B) Levator scapulae  
 (C) Rectus Abdominis (D) Transverse abdominis
095. Which of the following surface protein acts as opsoniser & has a role in host defense in lungs  
 (A) sp A & D (B) sp C & B  
 (C) sp A & C (D) sp B & D

096. Bronchial artery supplies up to  
 (A) Terminal bronchiole (B) Respiratory bronchiole  
 (C) Alveolus (D) Secondary bronchus.
097. Nexin link is also known as  
 (A) Dyenin Regulatory Complex (B) Outer dyenin arms  
 (C) Intermediate link (D) Radial spokes
098. Left superior intercostal vein drains into  
 (A) Azygous vein (B) Hemiazygous vein  
 (C) Innominate vein (D) Left brachiocephalic vein
099. The class of CFTR mutation in f508  
 (A) Class 1 (B) Class 2  
 (C) Class 3 (D) Class 4
100. Amino acid involved in most common CFTR mutation  
 (A) Phenylalanine (B) Tyrosine  
 (C) Leucine (D) Isoleucine
101. Which of the following is an autosomal dominant lung disease  
 (A) cystic fibrosis (B) alpha-1 antitrypsin deficiency  
 (C) primary ciliary dyskinesia (D) IPF
102. Most common site of lung abscess  
 (A) superior segment of right upper lobe  
 (B) posterior segment of right upper lobe  
 (C) posterior basal segment of right Lower lobe  
 (D) medial segment of middle lobe
103. Asbestos variant having least carcinogenic potential  
 (A) crocidolite (B) amosite  
 (C) anthrophyllite (D) chrysolite
104. BAP I syndrome is associated with all except  
 (A) inactivation of nuclear deubiquitinase  
 (B) uveal melanoma is the most common tumour associated with BAP I syndrome  
 (C) carries slow acetylation type of NAT-2 gene  
 (D) malignant melanoma of the membrane lining abdomen and peritoneum are more common than pleura
105. Which of the following pleural fluid study is not representative of exudative effusion  
 (A) Pleural fluid protein > 2.9 g/dl  
 (B) PF/serum LDH ratio  $\geq 0.6$   
 (C) Pleural fluid cholesterol > 45 mg/dl  
 (D) PF LDH > 2/3rd of the upper limit of laboratory normal serum LDH
106. Structure passing through the central tendon of diaphragm  
 (A) Esophagus (B) Right phrenic nerve  
 (C) Subcostal nerve (D) Left phrenic nerve

107. Anterior intercostal artery is a branch of  
 (A) internal mammary artery (B) direct branch of aorta  
 (C) posterior intercostal artery (D) subclavian artery
108. Which of the following is the most cranial structure in the root of left lung  
 (A) bronchus (B) pulmonary artery  
 (C) pulmonary vein (D) bronchial artery
109. Surface marking of oblique fissure of lung include all except  
 (A) T2 (B) 4th rib  
 (C) 5th rib (D) 6th costal cartilage
110. Which of the following is not true regarding pleural effusion associated with heart failure  
 (A) Serum assay of NT-pro BNP is more accurate than protein or albumin based testing  
 (B) Pleural fluid NT-pro BNP >400 pg/ml - CHF related  
 (C) pleural fluid assay of NT-pro BNP have no advantage over serum NT-pro BNP  
 (D) PF/S albumin gradient >1.2 g/dl - CHF related
111. First stage of lung development is  
 (A) pseudo glandular (B) tubular  
 (C) alveolar (D) canalicular
112. Not true regarding parapneumonic effusion  
 (A) Occurs in 29 - 57% of hospital admitted patients of CAP  
 (B) Initially sterile  
 (C) Bacterial invasion in pleural fluid produces fibrin  
 (D) Most common cause of pleural effusion
113. Viral oncogene associated with malignant mesothelioma  
 (A) Simian virus 40 (B) HTLV 1 & 2  
 (C) EBV (D) Adenovirus
114. Searles and McKendry diagnostic criteria is used for diagnosis of pulmonary involvement related to \_\_\_\_\_ ?  
 (A) Amiodarone (B) Methotrexate  
 (C) Cyclophosphamide (D) Bleomycin
115. Radiation recall phenomenon is caused by \_\_\_\_\_ ?  
 (A) Bleomycin (B) Busulfan  
 (C) Actinomycin D (D) Mitomycin C
116. Predominant cell in BAL of Hypersensitivity Pneumonitis?  
 (A) Macrophages (B) Lymphocytes  
 (C) Neutrophils (D) Eosinophils
117. Aldolase is elevated in?  
 (A) Systemic sclerosis (B) Sjogren syndrome  
 (C) PM-DM (D) Sarcoidosis
118. Drugs implicated in ILD include ?  
 (A) BCG (B) NSAID  
 (C) Talc (D) All of the above

119. Alveolar microlithiasis is associated with mutation in  
 (A) Type 2b sodium phosphate cotransporter gene  
 (B) Type 5 Na phosphate cotransporter  
 (C) Ca-ATPase  
 (D) Na-K-Cl cotransporter
120. Castleman's disease involves  
 (A) anterior mediastinum (B) posterior mediastinum  
 (C) anterior and middle (D) middle and posterior
121. Naclerio's V sign is seen in?  
 (A) Sjogren syndrome (B) PM-DM  
 (C) Empyema (D) Pneumomediastinum
122. Most Common site of granulomatous mediastinitis?  
 (A) Hilar (B) R paratracheal  
 (C) Subcarinal (D) L paratracheal
123. All are structures in middle compartment of mediastinum except?  
 (A) Phrenic nerve (B) Vagus nerve  
 (C) Heart (D) Superior and inferior venacava
124. False about RA-ILD is  
 (A) M:F=3:1 (B) High titre of RF  
 (C) Seen in smokers  (D) Seen in individuals with early onset disease
125. Average decline in PEFr with ageing in men is?  
 (A) 4 L/min/yr (B) 2.5 L/min/yr  
 (C) 3.5 L/min/yr (D) 3 L/min/yr
126. Pleuroperitoneal membrane forms primitive diaphragm at \_\_\_\_\_ wks of development?  
 (A) 3  (B) 7  
 (C) 4 (D) 6
127. Common genetic predisposition in RA and Diffuse panbronchiolitis is  
 (A) HLA DR3 (B) HLA DR5  
 (C) HLA DR4 (D) HLA DR2
128. Choose the correct statement  
 (A) Presence of diabetes insipidus in LCH indicate poor prognosis  
 (B) Baseline GAP stage predict rate of future pulmonary function decline  
 (C) Birbeck granule is seen in LAM  
 (D) LAM occurs commonly in males
129. Hamman rich syndrome is  
 (A) AIP (B) AEP  
 (C) COP (D) LIP
130. Pleural fluid ANA > \_\_\_\_\_ is very suggestive of lupus pleuritis  
 (A) 1:80 (B) 1:240  
 (C) 1:160 (D) 1:320

131. “Probable UIP” in HRCT includes all except  
 (A) Basal predominance (B) Traction bronchiectasis  
 (C) Ground glass opacities (D) Honeycombing
132. Antibody in Systemic sclerosis associated Pulmonary hypertension is  
 (A) Anti-Scl70 (B) Anticentromere  
 (C) RNP (D) Sm
133. Risk factors for bleomycin toxicity are all except  
 (A) higher cumulative dose correlate with toxicity  
 (B) exposure to high concentration of oxygen has synergistic effect  
 (C) smoking confers increased risk  
 (D) coadministration of hepatotoxic drugs increase risk of toxicity
134. Most common side effect of nintedanib  
 (A) Vomiting (B) Nausea  
 (C) Diarrhea (D) Photosensitivity
135. Smoking related ILD includes all except?  
 (A) DIP (B) RB-ILD  
 (C) HSP (D) IPF
136. Smoker’s macrophages is a pathologic hallmark in  
 (A) RB-ILD (B) IPF  
 (C) LCH (D) COP
137. Wrong statement regarding COP is  
 (A) Pathologic hallmark is whorls of myofibroblast and inflammatory cells in connective tissue matrix  
 (B) Frequently encountered manifestation in drug induced ILD  
 (C) Smokers are affected more frequently  
 (D) BAL reveals significant accumulation of macrophages
138. Langerin is antibody against  
 (A) CD1a (B) CD100  
 (C) CD207 (D) S100
139. Differentiation syndrome is caused by  
 (A) NSAID (B) Cyclophosphamide  
 (C) Actinomycin D (D) All trans retinoic acid
140. Abundant alveolar macrophages with “foamy cytoplasm” in BAL is seen associated with  
 (A) amiodarone (B) methotrexate  
 (C) bleomycin (D) busulfan
141. Lofgren syndrome is associated with all except  
 (A) fever (B) uveitis  
 (C) hilar adenopathy (D) facial nerve palsy

142. Contraindications for 6 minute walk test (6MWT) include  
 (A) Myocardial infarction within one MONTH  
 (B) Resting tachycardia >100  
 (C) Systolic BP >180  
 (D) Diastolic BP >100
143. Choose the correct statement  
 (A) In IPF a fall from baseline of  $\geq 15\%$  FVC or  $\geq 10\%$  TLCO in 1<sup>st</sup> 6 - 12months identifies patients with much higher mortality  
 (B) Desaturation during 6 MWT at presentation is stronger prognostic determinant in IPF than resting lung function  
 (C) In sarcoidosis 0.75-1mg/kg steroid over 6 - 12 months is given  
 (D) Transplant referral should be made if disease is advanced, TLCO < 45%
144. Beaded septum sign is seen in  
 (A) Sarcoidosis (B) Sjogren  
 (C) SLE (D) RA
145. Which of the following drugs targets MET gene?  
 (A) AFATINIB  (B) Foretinib  
 (C) Sorafenib (D) Panitumumab
146. The T790M mutation in EGFR kinase confers drug resistance  
 (A) By decreasing the receptors affinity for ATP at the ATP binding pocket.  
 (B) By increasing the receptors affinity for ATP at the ATP binding pocket.  
 (C) By decreasing binding of EGFR TKIs  
 (D) By blocking binding of EGFR TKIs.
147. Which of the following is not a potential carcinogenic content in tobacco?  
 (A) Chromium (B) Arsenic  
 (C) NNK  (D) Nickel
148. Pattern of calcification which suggests malignancy?  
 (A) Diffuse  (B) Eccentric  
 (C) Popcorn (D) Laminated
149. A 60 year old male ex smoker is found to have a solid nodule as an incidental finding on chest CT. The size of nodule is 6mm. Patient is not having any symptoms. What is the next step?  
 (A) No follow up needed (B) CT at 3 months  
 (C) CT at 6 - 12 months (D) CT at 12 months
150. Which of the following paraneoplastic neurologic syndromes in small cell lung cancer is not associated with anti Hu antibodies?  
 (A) Limbic encephalitis  (B) Lambert Eaton syndrome  
 (C) Paraneoplastic cerebellar degeneration (D) Autonomic neuropathy
151. Karnofsky performance status scale score 70 corresponds to  
 (A) ECOG score 0 (B) ECOG score 1  
 (C) ECOG score 2 (D) ECOG score 3

152. Most common cause of Pancoast syndrome is  
 (A) Non small cell lung cancer                       (B) Small cell lung cancer  
 (C) Mesothelioma     (D) None of the above
153. Hypercalcemia of malignancy is most commonly associated with  
 (A) Squamous cell carcinoma                       (B) Small cell carcinoma  
 (C) Adenocarcinoma     (D) Metastasis
154. What is the sensitivity of bronchoscopic biopsy in a directly visualized endobronchial tumour  
 (A) 72%     (B) 74%  
 (C) 76%     (D) 78%
155. Which of the following is not a positive immuno histo chemical marker for lung adenocarcinoma  
 (A) Cytokeratin 7     (B) Napsin  
 (C) Thyroid transcription factor 1                       (D) PAX 2
156. Immuno histo chemical marker which is positive in >95% squamous cell carcinoma  
 (A) CK7     (B) TTF1  
 (C) Napsin A     (D) 34β€12
157. Locus of RB gene  
 (A) 13q14     (B) 13p14  
 (C) 11q14     (D) 11p14
158. Inflammatory myofibroblastic tumour is more common in  
 (A) Male     (B) Female  
 (C) Equal in both sexes                       (D) No gender predilection
159. Most common benign tumour of lung  
 (A) Chondroma     (B) Alveolar adenoma  
 (C) Hamartoma     (D) Bronchial cystadenoma
160. Which of the following is not included in Carneys triad?  
 (A) Pulmonary chondroma                       (B) Gastric stromal sarcoma  
 (C) Extra adrenal paraganglioma                       (D) Adrenal paraganglioma
161. Immuno histo chemical marker which is strongly positive for Benign metastasizing leiomyoma?  
 (A) CD117     (B) SMA  
 (C) ER     (D) PR
162. Paraneoplastic manifestation which is not seen in small cell carcinoma?  
 (A) Hyponatremia of encephalopathy                       (B) Acromegaly  
 (C) Thrombocytosis     (D) Granulocytosis
163. Which of the following is not a marker of alveolar epithelial cells type II?  
 (A) SPA     (B) SP D  
 (C) Maclura pomifera     (D) Caveolin 1
164. The muscle which is recruited during expiration below FRC?  
 (A) Erector spinae     (B) Abdominal muscles  
 (C) Triangularis sterni     (D) Sternohyoid



165. Main source of rhythmic excitation driving inspiratory premotor neurons is  
 (A) Kolliker fuse nuclei (B) Parabrachial nuclei  
 (C) Botzinger nuclei (D) Pre botzinger complex
166. Which of the following is not a mast cell mediator?  
 (A) Histamine (B) Arylsulfatase  
 (C) Collagenase (D) Carboxypeptidase A
167. Anatomic dead space is measured using  
 (A) Bohr's method (B) Fowler's method  
 (C) Haldane's method (D) Gustav's method
168. Which of the following statement is true regarding blood flow in lung zones?  
 (A) In zone 2, flow is determined by difference between alveolar and arterial pressures.  
 (B) In zone 2, flow is determined by difference between arterial and venous pressures.  
 (C) Gravity has no effect on blood flow.  
 (D) In zone 3, flow is determined by difference between alveolar and arterial pressures.
169. Substance which is not metabolised in pulmonary circulation?  
 (A) Angiotensin 1 (B) Serotonin  
 (C) PGE2 (D) PGA2
170. Apneustic centre is located in  
 (A) Upper pons (B) Lower pons  
 (C) Dorsal medulla (D) Ventral medulla
171. Lung elastic recoil and chest wall elastic recoil balance at  
 (A) ERV (B) FRC  
 (C) RV (D) TLC
172. Surfactant consists of  
 (A) 90% proteins and 10% phospholipids (B) 90% phospholipids and 10% proteins  
 (C) 80% proteins and 20% phospholipids (D) 80% phospholipids and 20% proteins
173. Reversal of inflation reflex is known as  
 (A) Baroreceptor reflex (B) Heads reflex  
 (C) Stretch reflex (D) Deflation reflex
174. In a capnogram, end expiratory PCO<sub>2</sub> is represented by  
 (A) Phase 1 (B) Peak of phase 1  
 (C) Phase 3 (D) Peak of phase 3
175. Repeated episodes of apnoea in the absence of respiratory muscle effort  
 (A) OSA (B) central sleep apnoea  
 (C) mixed sleep apnoea (D) All of the above
176. Patients with OSA have more airway narrowing during  
 (A) Inspiration (B) Early expiration  
 (C) End expiration (D) Both inspiration and expiration

177. Neck circumference of more than \_\_\_\_\_ is a risk factor for OSA in women.  
 (A) 15 inches (B) 16 inches  
 (C) 17 inches (D) 18 inches
178. All of the following are components of polysomnography except  
 (A) EEG (B) ECG  
 (C) EMG (D) EOG
179. CPAP can be delivered through  
 (A) Nasal pillow (B) Nasal mask  
 (C) Full face mask (D) All of the above
180. Gold standard for treatment of OSA  
 (A) Surgery (B) CPAP  
 (C) Mandibular repositioning devices (D) All of the above
181. Development of central sleep apnoea during CPAP titration for OSA is called  
 (A) Idiopathic central sleep apnoea (B) Cheyne-stoke respiration  
 (C) Complex sleep apnoea (D) All of the above
182. Overlap syndrome includes  
 (A) OSA and COPD (B) OSA and metabolic syndrome  
 (C) OSA and stroke (D) OSA + COPD + Metabolic syndrome + Stroke
183. Criteria for Obesity-hypoventilation syndrome includes all except  
 (A) BMI  $\geq 30$  (B)  $PO_2 \leq 60$   
 (C)  $PCO_2 \geq 45$  (D) All of the above
184. Chest abdominal paradox occurs in  
 (A) Loss of diaphragm tone. (B) Partial upper airway obstruction  
 (C) Complete upper airway obstruction (D) All of the above
185. Most commonly reduced lung volume in obesity  
 (A) ERV (B) FRC  
 (C) TLC (D) RV
186. Most common cause of death in Parkinsons disease  
 (A) Pneumonia (B) ARDS  
 (C) Lung Abscess (D) None of the above
187. Respiratory manifestations of Multiple Sclerosis  
 (A) Respiratory muscle weakness (B) Bulbar dysfunction  
 (C) Abnormal respiratory control (D) All of the above
188. In spinal cord injury least respiratory impairment is seen in lesions of  
 (A) C1-C3 (B) C3-C5  
 (C) C4-C5 (D) C6-C8
189. Most common respiratory complication in Acute Poliomyelitis  
 (A) Pneumonia (B) Respiratory failure  
 (C) ARDS (D) All of the above

190. Only approved drug for Amyotrophic lateral sclerosis  
(A) Glatiramer (B) Mitoxantrone  
 (C) Riluzole (D) IFN
191. All of the following cause bilateral diaphragmatic paralysis except  
(A) Cervical spondylosis (B) Spinal cord injury  
(C) Muscular dystrophy  (D) Central vein cannulation
192. Major criteria for mechanical ventilation in Guillain Barre Syndrome are all except  
(A) Hypercarbia (B) Hypoxemia  
(C) Vital capacity < 15 ml/kg  (D) Atelectasis
193. Risk factors for critical illness polyneuropathy are all except  
(A) SIRS (B) GCS < 10  
(C) Neuromuscular blocking agents  (D) Hypoglycemia
194. Poor prognostic factor in Duchene muscular dystrophy  
(A) Reduction in maximum inspiratory pressure  
(B) FVC < 1 L  
 (C) Hypercarbia  
(D) Reduction in maximum expiratory mouth pressure.
195. Prolonged survival in Duchenne muscular dystrophy is seen with  
(A) Manual insufflator exsufflator (B) NIV Positive pressure ventilation  
(C) Steroid therapy  (D) Gene therapy
196. Metabolic myopathy causing respiratory failure  
(A) Acid maltase deficiency (B) Pompe's disease  
(C) Mitochondrial myopathy  (D) All of the above
197. Techniques that help in inspiratory and expiratory muscle function include all except  
(A) Manual thrust applied to abdomen during expiration  
 (B) CPAP  
(C) Intermittent abdominal pressure ventilator  
(D) None of the above
198. Which of the following is false about Bedaquiline  
 (A) Acts by blocking mycolic acid synthesis (B) Metabolized in liver  
(C) Bactericidal (D) None of the above
199. Which of the following is not an exclusion criterion for Delamanid  
(A) Lactation  (B) Controlled stable arrhythmia  
(C) History of heart failure (D) None of the above
200. Which of these is a platform for the National Tuberculosis Surveillance System  
(A) Swasthi (B) Arogya  
 (C) Nikshaya (D) Mitreya