

**029/2023**

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. The most important inspiratory muscle of the respiratory system :
  - (A) Sternocleidomastoid
  - (B) External intercostal muscle
  - (C) Internal intercostal muscle
  - (D) Diaphragm
  
2. Identify the bone which is part of the thoracic cage :
  - (A) Radius
  - (B) Sternum
  - (C) Femur
  - (D) Tibia
  
3. Primary site of gas exchange in the lungs :
  - (A) Trachea
  - (B) Pleura
  - (C) Alveoli
  - (D) Bronchi
  
4. Most common organ affected by tuberculosis in human body :
  - (A) Lungs
  - (B) Heart
  - (C) Brain
  - (D) Liver
  
5. Membrane covering the lungs :
  - (A) Pleura
  - (B) Peritoneum
  - (C) Meninges
  - (D) Synovium
  
6. Maximum number of oxygen molecules that can be carried by a haemoglobin molecule :
  - (A) One
  - (B) Two
  - (C) Three
  - (D) Four
  
7. Volume of air inhaled or exhaled during a normal respiration is known as :
  - (A) Tidal volume
  - (B) Vital capacity
  - (C) Inspiratory reserve volume
  - (D) Inspiratory capacity

8. Oxygen is transported in blood bound to :
- (A) Haptoglobin (B) Myoglobin  
(C) Haemoglobin (D) Haemosiderin
9. The site where oxygen is utilised in the human body is :
- (A) Lungs (B) Heart  
(C) Cells (D) Blood
10. Oxygen is transported in the blood by :
- (A) Red blood corpuscle (B) White blood corpuscle  
(C) Platelet (D) Neutrophil
11. Silicosis is associated with increased risk of :
- (A) Malaria (B) Tuberculosis  
(C) Filariasis (D) Amoebiasis
12. Particulate size of air pollutants causing greatest harm to human health :
- (A) particulate size  $< 2.5 \mu\text{m}$  in diameter  
(B) particulate size  $> 5 \mu\text{m}$  in diameter  
(C) particulate size  $> 10 \mu\text{m}$  in diameter  
(D) particulate size  $> 25 \mu\text{m}$  in diameter
13. All are air pollutants except :
- (A) Sulphur dioxide (B) Carbon monoxide  
(C) Nitric oxide (D) Nitrogen
14. Which of the following statements is correct?
- (A) Bagassosis is an occupational lung disease  
(B) Bagassosis is caused by tobacco smoking  
(C) Bagassosis is a lung disease caused by tuberculosis  
(D) Bagassosis is a lung disease caused by drowning
15. Lung disease caused by sandblasting :
- (A) Silicosis (B) Bagassosis  
(C) Asbesosis (D) Siderosis

16. Main symptom of patient with occupational lung diseases :
- (A) Chest pain (B) Breathlessness  
(C) Sputum production (D) Haemoptysis
17. Measures taken to reduce vehicular air pollution include all of the following except :
- (A) Use of leaded petrol  
(B) Phasing out of old vehicles  
(C) Application of stringent pollution control norm in vehicles  
(D) Reducing the sulphur and aromatic content in petrol and diesel
18. Rich source of protein for TB patients include all except :
- (A) Milk (B) Rice  
(C) Egg (D) Fish
19. Food to be avoided by TB patients include all except :
- (A) Alcohol in any form (B) Carbonated drink  
(C) Excess tea and coffee (D) Milk and eggs
20. Most important risk factor for tuberculosis in India :
- (A) HIV (B) Diabetes Mellitus  
(C) Smoking (D) Undernutrition
21. Undernutrition can be due to deficit in intake of :
- (A) Calories (B) Protein  
(C) Micronutrient (D) All of the above
22. Recommended nutritional counselling for TB patient is intake of :
- (A) Tonics  
(B) Exotic imported fruits like kiwi  
(C) Locally available nutrient rich food  
(D) Commercial food supplement
23. Means of artificial respiration includes all of the following except :
- (A) mouth to mouth breath (B) bag mask ventilation  
(C) mechanical ventilation (D) inhaler therapy

24. Ratio of chest compression to artificial breaths in cardiopulmonary resuscitation :
- (A) 30 : 2 (B) 60 : 2  
(C) 90 : 2 (D) 100 : 2
25. Steps in mouth to mouth breathing include all of the following except :
- (A) Tilting back the head of the victim  
(B) Pinching the nose of the victim  
(C) Blowing breath 5 inches above the mouth of the victim  
(D) Sealing the rescuers mouth over the victims mouth
26. Immediate cause of death in drowning :
- (A) Aspiration of water into stomach  
(B) Aspiration of water into larynx/lungs  
(C) Limb injury  
(D) None of the above
27. Resuscitation of drowning victims include all of the following except :
- (A) Move the person out of water  
(B) Chest compression  
(C) Warming with clothes or blankets  
(D) Abdominal compression to remove water from stomach
28. Number of chest compressions to be done per minute when resuscitating drowning victims :
- (A) 75 / minute (B) 30 / minute  
(C) 60 / minute (D) 100-120 / minute
29. Resuscitation of drowning victims include all of the following except :
- (A) calling for help when you are the lone rescuer  
(B) bringing out the victim from water by yourself when you are not a confident swimmer  
(C) check for spontaneous breath  
(D) start cardiopulmonary resuscitation as early as possible if there is no pulse or breath

30. Artificial respiration can be given in which location :
- (A) In well equipped intensive care unit
  - (B) In primary health centres
  - (C) At any place by a trained person
  - (D) All of the above
31. What is the ideal location for sputum collection?
- (A) Inside the doctor's clinic
  - (B) Inside the laboratory
  - (C) Outdoors or in a well ventilated area
  - (D) The patient's bathroom with the door closed
32. Which of the following constitutes a good sample for sputum microscopy?
- (A) 5 ml of muco-purulent sputum
  - (B) 5 ml of clear saliva
  - (C) 2 ml of sputum in a washed food container
  - (D) All of the above
33. Before the TB health visit is finished, the patient's wife notes that the TB patient has started drinking alcohol heavily again (around 7 or 8 drinks a day) after years of sobriety and asks for you to provide advice about the patient's alcohol use disorder. What should you advise?
- (A) Identify triggers of his alcohol use (including peer pressure from friends) and recommend strategies for minimizing contacts with these triggers
  - (B) Tell him that he is at fault for his drinking and state that you will no longer see him at follow-up visits unless he stops drinking
  - (C) Advise him to eat before drinking to blunt the effects of the alcohol
  - (D) (A), (B) and (C)
34. Which of the following is true of under nutrition and TB?
- (A) Under nutrition is a risk factor for TB
  - (B) Tuberculosis can lead to under nutrition
  - (C) Under nutrition is associated with adverse outcomes in TB patients
  - (D) All of the above

35. What is the theme of World Tuberculosis Day 2022?
- (A) Invest to End TB. Save Lives                      (B) The Clock is Ticking  
(C) It's TIME    (D) It's time to end the stigma
36. Which one of the following statements is correct about TB?
- (i) People suffering from HIV are prone to acquire tuberculosis.  
(ii) DOTS is a Directly Observed Treatment, Short course.  
(iii) In anti-tuberculosis treatment, hepatitis or liver disease is a common side effect.  
(iv) Medication for DRUG SENSITIVE TB is administered for 6 to 8 months.
- (A) Only (ii) is correct                                      (B) (i) and (ii) are correct  
(C) (ii) and (iv) are correct                              (D) (i), (ii), (iii) and (iv) are correct
37. What are the features of the people suffering from latent tuberculosis infection?
- (A) Have no symptoms  
(B) Patient feel sick  
(C) Spread TB bacteria to others  
(D) Patients have a positive chest X-ray for TB
38. World Health Organization recommended a control strategy for TB known as :
- (A) DOTS    (B) Gene therapy  
(C) Morphine    (D) MCT
39. At which place the cause for the disease Tuberculosis was announced?
- (A) The Institute of Physiology, Berlin  
(B) University of British Columbia  
(C) California Institute of technology  
(D) At Geneva, Switzerland
40. Which of the following statement is / are correct?
- (i) Dr. Robert Koch discovered a bacillus in 1882 that causes TB.  
(ii) Mainly TB affects the lungs.  
(iii) TB is among the top 3 causes of death for women aged 15 to 44.  
(iv) Symptoms of TB are fever, night sweat, weight loss, etc.
- Options are :
- (A) (i) and (iii)    (B) (ii) and (iv)  
(C) (i), (iii) and (iv)    (D) (i), (ii), (iii) and (iv)

41. Name the causal organism that is responsible for causing TB :
- (A) Bacteria (B) Virus  
(C) Protozoa (D) None of the above
42. World Tuberculosis Day is observed on :
- (A) 24 March (B) 24 April  
(C) 7 April (D) 14 November
43. National Tuberculosis Institute is located in :
- (A) New Delhi (B) Nagpur  
(C) Bengaluru (D) Thiruvananthapuram
44. A patient taking Isoniazid (INH) should be monitored for what deficiency?
- (A) Vitamin C (B) Calcium  
(C) Vitamin B6 (D) Potassium
45. A patient with active tuberculosis is taking Ethambutol. As the health visitor you make it priority to assess the patient's?
- (A) hearing (B) mental status  
(C) vitamin B6 level (D) vision
46. You note your patient's sweat and urine is orange. You reassure the patient and educate him that which medication below is causing this finding?
- (A) Ethambutol (B) Streptomycin  
(C) Isoniazid (D) Rifampin
47. Your patient, who is receiving Pyrazinamide, report stiffness and extreme pain in the right big toe. The site is extremely red, swollen and warm. You notify the physician and as the health visitor you anticipated the doctor will order?
- (A) Calcium level (B) Vitamin B6 level  
(C) Uric acid level (D) Amylase level
48. As the TB health visitor, you know that one of the reasons for an increase in multi-drug-resistant tuberculosis is :
- (A) Incorrect medication ordered  
(B) Immigration of patients from areas of the world where drug-resistant TB is common  
(C) Noncompliance due to duration of medication treatment needed  
(D) All the above

49. You're teaching a group of long-term care health givers about the signs and symptoms of tuberculosis. What signs and symptoms will you not include in your education?
- (A) Cough (B) Night sweats  
(C) Weight gain (D) Hemoptysis
50. Which non-communicable disease is strongly associated with TB?
- (A) Hypertension (B) Diabetes Mellitus  
(C) Stroke (D) Dyslipidemia
51. What is causing TB to become a serious public health problem?
- (A) The rise in number of people with HIV infection  
(B) An increasing number of immigrants from areas of the world where TB is common  
(C) People who don't take their TB treatment correctly  
(D) All of the above
52. How is TB treated?
- (A) Antiviral medicines (B) Antibiotics  
(C) Surgery (D) Radiotherapy
53. MDR TB is resistant to at least which two drugs?
- (A) Isoniazid and Pyrazinamide  
(B) Rifampicin and Isoniazid  
(C) Streptomycin and Ethambutol  
(D) Streptomycin and Bedaquiline
54. How can TB be diagnosed?
- (A) Chest X-ray (B) Sample of sputum  
(C) Skin or blood test (D) All of the above
55. Currently, TB control activities in India are spearheaded by which National Programme?
- (A) Revised National TB Control Programme (RNTCP)  
(B) National TB Elimination Programme (NTEP)  
(C) National TB Control Programme  
(D) National Programme for Prevention and Control of TB



56. Pick the odd one out in terms of TB management and control in India :
- (A) Suraksha Clinic
  - (B) District TB centre
  - (C) Designated microscopy centre
  - (D) Intermediate Research Laboratory
57. ASHA stands for :
- (A) Accredited Social Health Worker
  - (B) Accredited Social Health Activist
  - (C) Associated Social Health Activist
  - (D) Activist Social Health Provider
58. What makes TB hard to diagnose?
- (A) Symptoms aren't always obvious
  - (B) Symptoms come and go
  - (C) The disease may take years to become active
  - (D) (A) and (C)
59. How do you get TB?
- (A) Through the air
  - (B) Through sexual contact
  - (C) Through contaminated food
  - (D) (A) and (C)
60. A combination of medications which are applied to treat tuberculosis is :
- (A) to generate a better response
  - (B) to decrease the resistance of the entity to the treatment
  - (C) both (A) and (B)
  - (D) none of these
61. The BCG vaccine is administered for immunity against complications of :
- (A) Malaria
  - (B) Tuberculosis
  - (C) Jaundice
  - (D) Hepatitis
62. For Tuberculosis, the drugs used to combat it are :
- (A) Ethambutol, Pyrazinamide
  - (B) Isoniazid, Rifampicin
  - (C) Both (A) and (B)
  - (D) None of these

63. Which of these is the culture medium for causative organism of tuberculosis?
- (A) Löwenstein-Jensen medium
  - (B) Wilson blair medium
  - (C) Mac Conkey's medium
  - (D) None of the above
64. The person who discovered causative organism of tuberculosis was :
- (A) Louis Pasteur
  - (B) Robert Koch
  - (C) Edward Jenner
  - (D) None of the above
65. NRHM stands for :
- (A) National Rural Health Mission
  - (B) National Remote Health Mission
  - (C) National and Regional Health Management
  - (D) None of these
66. Govt. of India launched a web based portal/App for notification of Tuberculosis in India. Name the portal :
- (A) MCTS
  - (B) Nikshay
  - (C) Nischay
  - (D) Arogya Setu
67. The term "*Elimination of TB*" is defined as :
- (A) Less than 1 TB case per million/year
  - (B) Less than 10 TB cases per million/year
  - (C) Less than 100 TB case per million/year
  - (D) Less than 500 TB case per million/year
68. The Diluent used for reconstituting BCG vaccine is :
- (A) Normal Saline
  - (B) Distilled water
  - (C) Ringer lactate
  - (D) DNS
69. Sputum can be disinfected by :
- (A) Autoclaving
  - (B) Hypochlorite
  - (C) Cresol
  - (D) All the above

70. Starting around 1956, the \_\_\_\_\_ Experiment was carried out in India to determine whether treatment in a TB sanatorium provided any benefits as compared with treatment at home.
- (A) Bombay (B) Jaipur  
(C) Calcutta (D) Madras
71. Which of the following are goals listed in Sustainable Development Goals?
- (i) No Poverty  
(ii) Industry, innovation and infrastructure  
(iii) Space research infrastructure  
(iv) Responsible consumption and production
- (A) Only (i) and (ii)  
(B) Only (i), (ii) and (iii)  
(C) Only (i), (ii) and (iv)  
(D) All of the above (i), (ii), (iii) and (iv)
72. Which of the following statements is/are correct regarding the 'Sustainable Development Goal India Index'?
- (i) It aims to measure India and its States' progress towards the SDGs  
(ii) Indicate the comparative performance of Indian states  
(iii) Published by NITI Ayog
- (A) Only (i)  
(B) Only (ii)  
(C) Only (i) and (ii)  
(D) All of the above (i), (ii) and (iii)
73. The SDGs are intended to be achieved by the year :
- (A) 2025 (B) 2030  
(C) 2035 (D) 2050
74. The total number of goals in Sustainable Development Goal (SDG) are :
- (A) 10 (B) 12  
(C) 15 (D) 17

75. The central, transformative promise of the Sustainable Development Goals :
- (A) Leave no one behind
  - (B) Development everywhere
  - (C) Equity and equality
  - (D) Health and development for all
76. Which diseases are targeted for elimination under National Vector Borne Diseases Control Programme (NVBDCP)?
- (i) Malaria
  - (ii) Filaria
  - (iii) Kala Azar
  - (iv) Dengue
- (A) Only (ii)
  - (B) Only (i) and (ii)
  - (C) Only (i), (ii) and (iii)
  - (D) All of the above (i), (ii), (iii) and (iv)
77. Which of the following are the declared goal/goals of TB free India?
- (i) 70% reduction in the incidence
  - (ii) 80% reduction in the incidence
  - (iii) 80% reduction in mortality
  - (iv) 90% reduction in mortality
- (A) Only (i)
  - (B) Only (iii)
  - (C) Only (ii) and (iii)
  - (D) Only (ii) and (iv)
78. Leprosy elimination is defined as less than :
- (A) 1 case per 10,000 population
  - (B) 1 case per 20,000 population
  - (C) 1 case per 50,000 population
  - (D) 1 case per 1,00,000 population
79. Kala-azar in India is caused by :
- (A) Pasturella pestis
  - (B) Leishmania Donovanii
  - (C) Dracunculus medinensis
  - (D) Wuchereria bancrofti

80. Which among the following is not a drug for Mass Drug Administration (MDA) for filariasis?
- (A) Diethyl Carbamezine (B) Albendazole  
(C) Proguanil (D) Ivermectin
81. As per the government guidelines, the following symptoms are parts of the symptom complex used for TB screening among COVID positive patients :
- (i) Breathing difficulty  
(ii) Fever >2 weeks  
(iii) Significant weight loss  
(iv) Night sweats
- (A) Only (i) and (ii) (B) Only (ii) and (iii)  
(C) Only (i), (ii) and (iii) (D) Only (ii) (iii) and (iv)
82. COVID screening for all diagnosed TB patients and TB screening for all COVID-positive patients is called :
- (A) Bi-directional TB-COVID screening  
(B) Additional TB-COVID screening  
(C) Supplementary TB-COVID screening  
(D) Accelerated TB-COVID screening
83. The web-enabled patient management system for TB control under the National Tuberculosis Elimination Programme :
- (A) Nikshay (B) Akshay  
(C) Vikshay (D) Shikshay
84. The tests recommended for diagnosing Tuberculosis in India's National TB plan are :
- (i) Chest X-Ray  
(ii) Sputum smear microscopy  
(iii) CB-NAAT  
(iv) Anti-TB antibody serology
- (A) Only (i) and (ii) (B) Only (ii) and (iii)  
(C) Only (i), (ii) and (iii) (D) Only (ii), (iii) and (iv)

85. Which of the following disease/diseases is/are caused by coronaviruses?
- (A) SARS (B) MERS  
(C) COVID-19 (D) All of the above
86. The Navakerala mission seeks to address problems faced in the following social sectors :
- (i) Health  
(ii) Education  
(iii) Industries  
(iv) Agriculture
- (A) Only (i) and (ii)  
(B) Only (ii) and (iii)  
(C) Only (i), (ii) and (iii)  
(D) Only (ii), (iii) and (iv)
87. The 'Ardram mission' by the Government of Kerala is aimed at improving the following :
- (A) Health facilities (B) Elderly care  
(C) Social pension (D) Palliative care
88. Which of the following is not a focus of the Haritha Kerala mission?
- (A) Organic farming (B) Waste management  
(C) Road transport (D) Water resources
89. The new initiative in the second phase of the Navakerala Mission :
- (A) Rebuild Kerala  
(B) Life mission  
(C) Karunya scheme  
(D) Educational Rejuvenation



94. Diseases that spread through the airborne route include :
- (i) Influenza
  - (ii) Measles
  - (iii) Sleeping sickness
  - (iv) Chickenpox
- (A) Only (i), (ii) and (iii)  
(B) Only (i), (ii) and (iv)  
(C) Only (i), (iii) and (iv)  
(D) All of the above (i), (ii) (iii) and (iv)
95. Droplets are infectious particles of size :
- (A) <1 Micron (B) >1 Micron  
(C) <5 Micron (D) >5 Micron
96. The drug used for chemoprophylaxis against H1N1 Influenza among the close contacts of patients with H1N1 Influenza :
- (A) Zidovudine (B) Acyclovir  
(C) Oseltamivir (D) Didanosine
97. The work of breathing in humans is done by the :
- (A) Diaphragm (B) Arteries  
(C) Veins (D) Lymphatics
98. In COVID-19 pneumonia, the lung alveoli get filled with :
- (A) Blood (B) Fluid  
(C) Lymph (D) CSF
99. The mid-and long-term effects after recovering from COVID-19 are collectively known as :
- (A) Enhanced COVID (B) Long COVID  
(C) Extended COVID (D) Unresolved COVID
100. The “corona” in coronavirus means :
- (A) Sun (B) Strong  
(C) Crown (D) Lungs



**SPACE FOR ROUGH WORK**

**SPACE FOR ROUGH WORK**