

073/2017

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total Number of Questions : 100

Time : 75 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

073/2017

1. Ribosomes are the centre for :
(A) Respiration (B) Photosynthesis
(C) Protein synthesis (D) Fat synthesis
2. An outer covering membrane is absent over :
(A) Nucleolus (B) Lysosome (C) Mitochondrion (D) Plastid
3. Which one of the following has its own DNA ?
(A) Peroxisome (B) Dictyosome (C) Lysosome (D) Mitochondria
4. Tricuspid valve is found in between :
(A) Right auricle and right ventricle (B) Ventricle and aorta
(C) Left auricle and left ventricle (D) Right ventricle and pulmonary artery
5. Arteries carry oxygenated blood except :
(A) Hepatic (B) Cardiac (C) Pulmonary (D) Systemic
6. Wall of blood capillary is formed of :
(A) Haemocytes (B) Parietal cells (C) Endothelial cells (D) Oxyntic cells
7. 'Dup' Sound is produced during the closure of :
(A) Semilunar valves (B) SA node (C) Bundle of His (D) Purkinje fibres
8. In man ribs are attached to :
(A) Clavicle (B) Ileum (C) Sternum (D) Scapula
9. The correct route through which pulse making impulse travels in the heart is :
(A) AV-node → bundle of His → SA node → Purkinje fibres → heart muscles
(B) AV-node → SA node → Purkinje fibres → bundle of His → heart muscles
(C) SA node → Purkinje fibres → bundle of His → AV-node → heart muscles
(D) SA node → AV-node → bundle of His → Purkinje fibres → heart muscles

10. The blood cancer is known as :
(A) leukaemia (B) thrombosis (C) haemolysis (D) haemophilia
11. An adult human with average health has systolic and diastolic pressure as :
(A) 70 mm Hg and 120 mm Hg (B) 120 mm Hg and 80 mm Hg
(C) 50 mm Hg and 80 mm Hg (D) 180 mm Hg and 80 mm Hg
12. The lining of the inner wall of the heart's chambers is formed :
(A) Visceral pericardium (B) Serous pericardium
(C) Epicardium (D) Endocardium
13. The exchange of gases and nutrients between blood and tissues is a major function of :
(A) Arterioles (B) Arteries (C) Capillaries (D) Veins
14. Bones are mainly made up of :
(A) Calcium and Phosphorous (B) Calcium and Sulphur
(C) Calcium and Magnesium (D) Calcium and Iron
15. The cardiac pacemaker in a patient fails to function normally. The doctors find an artificial pacemaker is to be grafted in him it is likely that it will be grafted at the site of :
(A) Atrioventricular bundle (B) Purkinje system
(C) Sinoatrial node (D) Atrioventricular node
16. In a standard ECG which one of the following alphabets is the correct representation of the respective activity of the human heart ?
(A) S- Start of systole (B) T- end of diastole
(C) P- depolarization of the atria (D) R- Depolarization of ventricles
17. 'Bundle of His' is a part of which one of the following organs in humans ?
(A) Brain (B) Heart (C) Kidney (D) Pancreas
18. Which chamber of human heart has thickest muscular wall ?
(A) Left ventricle (B) Left auricle (C) Right ventricle (D) Right auricle

19. The number of floating ribs in the human body is :
(A) 6 pairs (B) 5 pairs (C) 3 pairs (D) 2 pairs
20. The lower jaw in mammals is made up of :
(A) Mandible (B) Dentary (C) Maxilla (D) Angulars
21. Total number of bones in the hind limb of man is :
(A) 14 (B) 30 (C) 24 (D) 21
22. The joint found between sternum and the ribs in humans is :
(A) Angular joint (B) Fibrous joint
(C) Cartilaginous joint (D) Gliding joint
23. Which of the following cranial nerves can regulate heart beat ?
(A) X (B) IX (C) VIII (D) VII
24. What is intensity of sound in normal conversation ?
(A) 10-20 decibel (B) 30-60 decibel (C) 70-90 decibel (D) 120-150 decibel
25. In the resting state of the neural membrane, diffusion due to concentration gradients, if allowed, would drive :
(A) K^+ into the cell (B) K^+ & Na^+ out of the cell
(C) Na^+ into the cell (D) Na^+ out of the cell
26. The most abundant intracellular cation is :
(A) Ca^{++} (B) H^+ (C) K^+ (D) Na^+
27. Intercostal muscles occur in :
(A) Abdomen (B) Thigh (C) Diaphragm (D) Ribs
28. Which one of the following organs in the human body is most affected due to shortage of oxygen ?
(A) Intestine (B) Skin (C) Kidney (D) Brain

29. Oxygenated blood from lungs is carried to the heart by :
- (A) Pulmonary artery (B) Pulmonary vein
(C) Coronary vein (D) Pre-cavals
30. The disease that occurs when the hemoglobin content of the blood goes down is
- (A) Pleurisy (B) Emphysema (C) Anaemia (D) Pneumonia
31. The normal rate of respiration in man per minute is about :
- (A) 10 to 15 times (B) 16 to 20 times (C) 19 to 21 times (D) 23 to 25 times
32. The covering of the lung is called :
- (A) Pericardium (B) Perichondrium
(C) Pleural membrane (D) Peritoneum
33. Oxygen carrying capacity of blood is :
- (A) 20% (B) 30% (C) 40% (D) 50%
34. Pulse pressure is :
- (A) Pressure in the great veins
(B) Systolic pressure
(C) Difference between systolic and diastolic pressure
(D) Diastolic pressure
35. Human/mammalian/elephant heart is :
- (A) Myogenic (B) Neurogenic (C) Cardiogenic (D) Digenic
36. To reach the left side of heart the blood must pass through :
- (A) Sinus Venosus (B) Kidneys (C) Liver (D) Lungs
37. Characteristics of cardiac muscles are that they :
- (A) Contract quickly and get fatigued
(B) Contract quickly and do not get fatigued
(C) Contract slowly and get fatigued
(D) Contract slowly and do not get fatigued

38. The pH of blood is :
 (A) Between 7-8 (B) Between 2-4 (C) Between 12-14 (D) Between 2-5
39. Pulse can be detected from the artery of :
 (A) Thigh (B) Diaphragm (C) Humerus (D) Wrist
40. ECG is a measure of :
 (A) Rate of heart beat (B) Difference in electric potential
 (C) Volume of blood pumped (D) Ventricular Contraction
41. Cardiac output is determined by :
 (A) Heart rate (B) Stroke volume (C) Blood flow (D) Both (A) and (B)
42. In order for the blood to flow from right ventricle to left ventricle in mammalian heart, it must flow through :
 (i) Right ventricle
 (ii) Pulmonary veins
 (iii) Left atrium
 (iv) Lungs
 (v) Pulmonary arteries
 (A) (i), (v), (iv), (ii), (iii) (B) (i), (ii), (iii), (iv), (v)
 (C) (iii), (v), (i), (ii), (iv) (D) (iii), (ii), (i), (iv), (v)
43. During systemic circulation, blood leaves the (i) _____ and (ii) _____.
 (A) (i) Left ventricle, (ii) goes directly to the aorta
 (B) (i) Right ventricle, (ii) goes directly to the aorta
 (C) (i) Right ventricle, (ii) moves to the lungs
 (D) (i) Left ventricle, (ii) moves to the lungs
44. On a normal ECG/EKG, ventricular depolarization occurs during the :
 (A) P wave (B) QRS complex (C) T wave (D) P-Q interval

45. When aortic pressure is greater than the ventricular pressure :
- (A) The tricuspid atrioventricular valve opens
 - (B) The bicuspid/mitral atrioventricular valve closes
 - (C) The aortic semilunar valve closes
 - (D) The pulmonary semilunar valve opens
46. Following a motor vehicle accident, a large loss of blood will initially cause :
- (A) A lowered BP due to a decreased cardiac output
 - (B) A higher BP due to an increased stroke volume
 - (C) No change in BP but a slower heart rate
 - (D) No change in BP but an increased respiration rate
47. The heart is made up of which type of muscle :
- (A) Skeletal muscle
 - (B) Smooth muscle
 - (C) Cardiac muscle
 - (D) Elastic muscle
48. The most common type of defect of the cardiac septa is :
- (A) Muscular ventricular septal defect
 - (B) Primum atrial septal defect
 - (C) Secundum atrial septal defect
 - (D) Membranous ventricular septal defect
49. Function of transducer is to convert :
- (A) Electrical signal into non electrical quantity
 - (B) Non electrical quantity into electrical signal
 - (C) Electrical signal into mechanical quantity
 - (D) All of these
50. Strain gauge is a :
- (A) Active device and converts mechanical displacement into a change of resistance
 - (B) Passive device and converts electrical displacement into a change of resistance
 - (C) Passive device and converts mechanical displacement into a change of resistance
 - (D) Active device and converts electrical displacement into a change of resistance

51. The linear variable differential transformer transducer is :
(A) Inductive transducer (B) Non-inductive transducer
(C) Capacitive transducer (D) Resistive transducer
52. If at one end, the two wires made of different metals are joined together then a voltage will get produced between the two wires due to difference of temp. between the two ends of wires. This effect is observed in :
(A) Thermistors (B) RTD (C) Ultrasonics (D) Thermocouples
53. Sound is produced due to :
(A) Friction (B) Circulation (C) Vibration (D) Refraction
54. Sound waves are :
(A) Longitudinal (B) Transverse (C) Electromagnetic (D) Only magnetic
55. A thin, semi-transparent, flexible membrane is known as :
(A) Ear lobe (B) Ear canal (C) Ear drum (D) Pinna
56. Pinna is a shell-like structure which is a part of :
(A) Inner ear (B) Outer ear (C) Middle ear (D) None of them
57. The classic ECG changes in myocardial infarction (MI) are :
(A) T- wave
(B) ST- segment elevation
(C) Development of an abnormal wave
(D) All of the above
58. One specific ECG change in hypokalemia (low potassium level) is :
(A) U wave (a positive deflection after the T wave)
(B) ST segment elevation
(C) Tall peaked T waves
(D) Increased amplitude and widening of the QRS complex.

59. Normal QRS width is :
- (A) 0.12 to 0.20 second (B) 0.42 to 0.43 second
(C) 0.08 to 0.12 second (D) 0.04 to 0.10 second
60. When do coronary arteries primarily receive blood flow ?
- (A) During inspiration (B) During diastole
(C) During expiration (D) During systole
61. Which of the following is the most common symptom of myocardial infarction ?
- (A) Chest pain (B) Dyspnea (C) Edema (D) Palpitations
62. Which of the following diagnostic tools is most commonly used to determine the location of myocardial damage ?
- (A) Cardiac catheterization (B) Cardiac enzymes
(C) Echocardiogram (D) Electrocardiogram
63. _____ is formed by placing negative electrode on the zero point and the positive electrode on the right arm :
- (A) Lead II (B) Lead I (C) Lead III (D) aVR
64. In normal ECG recording the paper speed is _____.
- (A) 50 mm/second (B) 25 mm/second (C) 50 mm/minute (D) 25 mm/minute
65. Lead III obtained by connecting _____ and _____.
- (A) Right arm and left arm (B) Right leg and left leg
(C) Right arm and left leg (D) Left arm and left leg
66. Organ of corti is situated in :
- (A) Scala media (B) Scala tympanum
(C) Scala vestibule (D) Saccule
67. Positive Rinnetest is seen in :
- (A) Otosclerosis (B) CSOM
(C) Wax impacted ear (D) Presbycusis

68. Otosclerosis is associated with all except :
- (A) Conductive deafness (B) Common in males
(C) Mostly attests stapes (D) Run in families
69. Cochlear implant used in :
- (A) Sensory neural deafness (B) Conductive deafness
(C) Mixed (D) None
70. Who invented ECG ?
- (A) Willem Einthoven (B) Ampere
(C) Darwin (D) Newton
71. I.C.C.U. stands :
- (A) Critical Care Unit (B) Instrument Command and Control Unit
(C) Intensive Care Unit (D) Intensive Coronary Care Unit
72. Tachycardia means _____.
- (A) Heart rate above 100 beats per minute
(B) Heart rate between 60 and 80 beats per minute
(C) Heart rate below 60 beats per minute
(D) 70-72 beats per minute
73. Lead V_2 is placed over _____ intercostal space in the left sterna margin.
- (A) 5th (B) 4th (C) 2nd (D) 3rd
74. First human heart transplant was performed by :
- (A) Watson (B) Christian Barnad
(C) William Harvey (D) Einthoven
75. The artificial pacemaker consists of a pulse generator for containing :
- (A) Lithium halide cell (B) Strontium cell
(C) SA node (D) Dry cell

76. "anterior" means _____.
- (A) Towards the back of the body (B) Towards the front of the body
(C) Nearer to head (D) Nearer to foot
77. Vital capacity of lungs of an average human is :
- (A) 3000 - 4500 ml (B) 1500 - 1800 ml (C) 2000 - 2500 ml (D) 500 - 1000 ml
78. Sympathetic nervous system :
- (A) Decrease heart beat (B) Increases heart beat
(C) Not related to heart beat (D) Control heart beat
79. In man regulation of respiration and heart beat is maintained by :
- (A) Cerebrum (B) Medulla oblongata
(C) Cerebellum (D) Spinal cord
80. Universal blood recipient is :
- (A) Blood group O (B) Blood group AB (C) Blood group A (D) Blood group B
81. Which amendment of Indian Constitution reduce the voting age from 21 to 18 ?
- (A) 42nd amendment of 1989 (B) 70th amendment of 1989
(C) 61st amendment of 1989 (D) 71st amendment of 1989
82. 'Jana-gana-mana' is accepted as our national anthem on :
- (A) 1950 Jan-24 (B) 1950 Jan-26 (C) 1949 Oct-29 (D) 1950 Jan-25
83. The first Chairperson of Kerala Vanitha Commission :
- (A) K.C. Rosakutty (B) Sugathakumari
(C) M. Kamalam (D) Justice K.K. Usha
84. The publisher of the Newspaper 'Al Ameen' :
- (A) Vakkam Abdul Khader Moulavi (B) Moidu Moulavi
(C) Muhammed Abdul Rahman (D) Kandathil Varghees Mappila

85. 'Rajya Samacharam' published from :
(A) Mahe (B) Thalasseri (C) Payyannoor (D) Vadakara
86. The book written by Vaikunda Swamikal :
(A) Jathi Kummi (B) Balakalasham
(C) Udyana Virunnu (D) Arul Nool
87. The leader of Guruvayoor Satyagraha :
(A) Mannath Padmanabhan (B) K. Kelappan
(C) A.K. Gopalan (D) T.K. Madhavan
88. The organisation formed by Swami Ananda Theertha for his social reforms :
(A) Sree Rama Krishnasramam (B) Sidhasramam
(C) Jathi Nasini Sabha (D) Ananda Maha Sabha
89. Who is known as Jhansi Rani of Travancore ?
(A) Akkamma Cheriyan (B) A.V. Kuttimalu Amma
(C) Captain Lakshmi (D) Arya Pallam
90. Which book of Kesava Dev get Kendra Sahitya Accadami Award ?
(A) Odayil Ninnu (B) Ayalkar (C) Ethirppu (D) Brandhalayam
91. 'Right to Information Act' passed in the year :
(A) 2004 (B) 2006 (C) 2005 (D) 2007
92. Which among the following was included in the world heritage table in 2016 from India ?
(A) Kanjan Junga (B) Rani Ki Vav
(C) Greater Himalayan National Park (D) Kasiranga wild life sanctuary
93. Who won the 'Njanapida' Award of 2014 ?
(A) Amritha Preetham (B) Sumithranandan Panth
(C) Balachandra Nomade (D) Tharasankar Bandopadyaya

94. The organisation 'Vidyaposhini' was began by :
(A) Pandit Karuppan (B) Ayyankali
(C) Poykayil Yohannan (D) Sahodaran Ayyappan
95. The leader of 'Ezhava Memorial' :
(A) Dr. Palppu (B) K. Sankaramenon (C) Kumaranasan (D) G.P. Pillai
96. The Constitutional Assembly firstly summoned in Constitution Hall, which is recently known as :
(A) Constituent Assembly Hall (B) Assembly Hall of Loksabha
(C) Central Hall of Parliament (D) Assembly Hall of Rajyasabha
97. 'Veena Poov' of Kumaranasan firstly published in :
(A) Vivekodayam (B) Swaraj (C) Malayalee (D) Mithavadhi
98. Who was inaugurated Kerala Sangeetha Nataka Akademi in 1958 ?
(A) Chithira Thirunal Balaramavarmma
(B) Pattam Thanu Pillai
(C) Jawaharlal Nehru
(D) E.M.S. Namboodiripad
99. Who is regarded as 'Kerala Hemingway' ?
(A) P. Kunchi Raman Nair (B) M.T. Vasudevan Nair
(C) C.V. Raman Pillai (D) Thakazhi Sivasankara Pillai
100. Who is the 11th President of India ?
(A) A.P.J. Abdul Kalam (B) K.R. Narayanan
(C) Pratibha Patil (D) Dr. Shankardayal Sharma

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