

QN NO.	Scoring key	Score	
1	b)Glycosidic bond	1	
2	c)Residual Volume	1	
3	d)Tricuspid valve	1	
4	Sarcomere	1	
5	Adipose Tissue	1	
6	a) Effect of substrate concentration on enzyme action b) Maximum velocity	1 1	
7	A fall in glomerular blood flow/glomerular blood pressure/GFR can activate the JG cells to release renin which converts angiotensinogen in blood to angiotensin I and further to angiotensin II. Angiotensin II, being a powerful vasoconstrictor, increases the glomerular blood pressure and thereby GFR. Angiotensin II also activates the adrenal cortex to release Aldosterone. Aldosterone causes reabsorption of Na ⁺ and water from the distal parts of the tubule. This also leads to an increase in blood pressure and GFR. Thus JGA plays complex regulatory role in kidney functioning	2	
8	Monocytes, all others are granulocytes	2	
9	Smooth muscle/ Non striated muscle/ Visceral Muscle Internal organs-Blood vessel, stomach,,,	1 1	
10	Nearly 20-25 per cent of CO ₂ is transported by RBCs .70 per cent is carried as bicarbonate. About 7 per cent of CO ₂ is carried in a dissolved state through plasma. i)In the form of carbamino- hemoglobin About 20-25 % CO ₂ is carried by haemoglobin as carbamino-haemoglobin . When pCO ₂ is high and pO ₂ is low as in the tissues, more binding of carbon dioxide occurs whereas, when the pCO ₂ is low and pO ₂ is high as in the alveoli, dissociation of CO ₂ from carbamino haemoglobin takes place, i. e., CO ₂ which is bound to haemoglobin from the tissues is delivered at the alveoli ii. In the form of bicarbonate ions RBCs contain a very high concentration of the enzyme, carbonic anhydrase and minute quantities of the same is present in the plasma too. At the tissue site where partial pressure of CO ₂ is high due to catabolism, CO ₂ diffuses into blood (RBCs and plasma) and forms HCO ₃ ⁻ and H ⁺ ,. At the alveolar site where pCO ₂ is low, the reaction proceeds in the opposite direction leading to the formation of CO ₂ and H ₂ O	2	
11	Polypeptides Collagen	Polysaccharides Chitin Glycogen cellulose	2
12	a) <u>Atherosclerosis</u> :It is caused by deposits of calcium, fat, cholesterol and fibrous tissues, which makes the lumen of arteries narrower. This increases hypertension. Excess cholesterol and fat also leads to obesity.Abnormal ECG may be due to defective pacemaker/AVN/damage in conductive system of heart b)Regular exercise, consume nutritive food with low cholesterol and fat	2	
13	a)Tracheal system b)Gills c)Lungs d)Skin	0.5. 0.5 0.5 0.5	
14	a) A-Hepatic Caecae B-Gizzard b) A-secrete digestive juice B-Grinding of food	2	
15	a) Haemocoel/Sinuses b) Heterodont	2	
16	a) Systole is the contraction of chambers of heart	1	

	Diastole is the relaxation of the chambers of the heart b) The animals that excrete urea is called ureotelics The animals that excrete uric acid is called uricotelics	1												
17	a) Protein digestion will not complete, because enterokinase activate proenzyme trypsinogen in to trypsin (proteolytic enzymes) b) Intestinal mucosa c) It converts inactive proenzyme trypsinogen into trypsin	1 1 1												
18	1 a) Pulmonary vein b) Pulmonary artery c) Dorsal Aorta d) Venacava/Great veins Pulmonary vein carries oxygenated blood from lungs to left atrium of human heart Aorta carries oxygenated blood from left ventricle to body parts	3												
19	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>Bone</td> <td>Osteocyte</td> <td>Support</td> </tr> <tr> <td>Muscle</td> <td>Myosin</td> <td>Contraction</td> </tr> <tr> <td>Neuron</td> <td>Axon</td> <td>Transmission</td> </tr> </tbody> </table>	A	B	C	Bone	Osteocyte	Support	Muscle	Myosin	Contraction	Neuron	Axon	Transmission	3
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20	a) It provide buoyancy to the fish b) It is the locomotary organs in ctenophores c) It helps to enter water into the spongocoel ?(Water transport/canal system)	3												