Unit -V

Chapter-22. Excretory Products and Their Elimination

IMPORTANT POINTS

* End of metabolic activities in organisms nitrogen waste material like ammonia, urea and ureic acid are produced.
* Execretion means the separation and elimination of Waste material from the body.
* Organisms are three type on the bases of excretory substances :
  (i) Ammonotelic
  (ii) Ureotelic
  (iii) Urecotelic
* In human excretory organ is a pair of kidney, one urinary blandder and urethra.
* Kidney are reddish brown color, bean shaped and on either side of the vertebral column in the lumber region. Each kidney is about 10cm long, 5 cm wide and 3 cm thick. In adult, it weight about 125-170 gm
* Each human kidney is containing about a million nephrons. Nephrons are refered to as the structural and the function units of the kidney. It known as uriniferous tubules.
* Each nephrons is about 3 cm long and 20-30 cm in diameter. Nephron consists of Bowman's capsule, proximal convoluted, henle's loops, distal convoluted and colleting duct.
* They comprise structure of glomerules and Brown's capsule is called malpighian corpuscles, where filtration of blood and urine formation is started.
* Urine formation involves three phase :
  (i) Glomerular filtration
  (ii) Re-absorption and
  (iii) Tubular secreation.
* The function of the kidney is efficiently monitored and regulated hormonal feedback mechanisms involving mainly hypothalamus, pituitary, JGA and heart at cretain extent.
* The norrmal urine is pale yellow colored watery fluid which is slightly acidic (pH-6.0)and with a charactedristic odour. On an average 1 to 1.5 liter urineis produced per day, through it 25-30 gm of urea is excreted.
* Mammalian skin having sebaceous and sweat glands. Sebaceous gland discharge waxes, sterols, fatty acid and hydrocarbons, It lubricates the and prevents drying up of skin and wetting of hair. While sweet gland scretion is watery and consists of water, salts, mainly Nacl, urea, lactic acid, and little amino acid.

* Corbon dioxide and water are eliminated through human langs. About 18 liter of CO_2 per hour and about 400 ml of water per day are removed by human lungs.
* By the disorders of excretion uremia, kidney failure, renal calculi and nephritis occurs.

MCQ

(1) Which of the following is a metabolic waste of nitrogenous substances?
(a) NH_3,urea,CO_2 (b) NH_3,aranine, urea
(c) Urea, NH_3, creatinine (d) Urea, oxugen, SO_2

(2) Excretion of nitrogenous waste produt is remirolid form occure in
(a) ureotelic animals (b) Ammorotelic animals
(c) ureotelic animals (d) ammiotes

(3) In man, the area is mainly produced in
(a) Liver (b) Kidneys (c) Gall bladder (d) Spleen

(4) Ureotelism is found in
(a) Mammals (b) Aquatic insects (c) Tadpoles (d) Birds

(5) Which of the following are uricotelic animals?
(a) Rohu and Frog (b) Lizard and Crow
(c) Camel and Frog (d) Earthworm and eagle

(6) If liver from body is removed then which component of blood increases
(a) Ammonia (b) Protein (c) urea (d) Uric acid

(7) Man is....
(A)Ureotelic (b) Uricotelic (c) Ammonotelic (d) Both b and c

(8) Uric acid is formed in human from
(a) purines (b) protines (c) glucose (d) pyrimidines

(9) Green glands are excretony in function which are found in
(a) Spiders (b) Moth (c) Scropions (d) Prawn

(10) For maintanance of osmoregulation by animals where urea is sored?
(a) Medulla of Kidney (b) Cortex of Kidney (c) Renal of pelvis (d) Renal artery

(11) Excretory structure of earthworms is...
(a) Malpighian tubules (b) Nephridia (c) Kidney (d) Anternal glands

(12) Those animals which excrete a large amount of NH_3 are...
(a) Terretrial (B)Eegg lying (c) Amphibions (d) Aquatic

(13) "Columns of Bertini" is the kidney of manimals are found as the extersion of
(a) Medulla into cortex (b) Cortex into medulla (c) Medulla into pelvis (d) Pelvis into ureter

(14) Each human kidney has nearly...
(a) 10,000 neophrons (b) 50,000 neophrons
(c) 1,00,000 neophrons (d) 1 million neophrons
(d) CO_2

(15) ADH influences water permbeality in the
(a) Regulation of blood pressure (b) Removal of urea
(c) Regulation of acidity of fluids (d) secretion of antibiotics

(16) Inner living of Bowman's capsule is lined by:
(a) Podocytes (b) Squamous calls (c) Microvilli (d) Columnar calls

(17) Nitrogenous waste in the Malpighian tubule flows into...
(a) PCT (b) Intestine (c) Haemocoel (d) DCT

(18) Urinary Excretion of Na is regulated by ....
(a) Anteroir pituitary (b) Posterior Pituitary (c) Adrenal cortex (d) Adenal medulla

(19) The yellow colour of urine of the vertebrates in due to
(a) Cholesterol (b) Urochrome (c) Uric acid (d) Malamin

(20) The glomerular filteration rate in a normal adult is nearly
(a) 200 ml/min (b) 250 ml/min (c) 125 ml/min (d) 170 ml/min

(21) Sodium water and phosphate reabsorption is maximum in
(a) Loop of henle (b) PCT (c) DCT (d) Collecting tuble

(22) What is the approximately length and diameter of uriniterous tubule?
(A)3 cm length,diameter 35um
(B)3 cm length,diameter 20.30um
(C)30 cm length,diameter 25um
(D)25 cm length,diameter 20um

(23) Urea formation occure by:
(a) Arginine cycle (b) Krebs cycle (c) Ornithine cycle (d) Citulline cycle

(24) Ornithine cycle ic found in....
(a) Kidney (b) Liver (c) Spleen (d) Pencreas

(25) Function of loop of Henle is...
(a) Formation of urine (b) Passage of urine
(c) Conservation of water (d) Filtration of blood

(26) Ascending loop if henle is perrneable to:
(a) K^+ (b) Cl^- (c) Na^+ (d) All of above

(27) Proboscis gland is balanoglossus is associated with
(a) Digestion (b) Excretion (c) Circulation (d) Respiration

(28) The appearance of albumin in the urine is most likely due to..

(a) Increase is blood pressure (b) Decrease in the blood osmotic pressure

(c) Damage to the Malpighian corpuscles (d) Damage to the PCT

(29) The blood constituents that remain unchanged in quality after circulating through the kidneys are...

(a) Urea and glucose (b) Glucose and proteins (C) Urea and proteins (d) Urea and uric acid

(30) The renal vain carries bloood

(a) Towards liver (b) Into the kidney

(c) Away from the kidney (d) Towards urinary blodder

(31) Animals which cannot maintain thier osmotic environment at a constant level are called

(a) Osmoregulators (b) Oamoconfirmers (c) Pokilotherms (d) Homeotherms

(32) The Organism which maintain an independent concentration of their extracellular fluids

(a) Osmoconfirmers (b) Osmoregulators (c) a & b both (d) None of above

(33) The mechanism of urine formation in nephorn involves

(a) Ultrafilteration (b) Secretion (c) Reabrorption (d) All of above

(34) As compared to efferent arterule the afferent arteriont of kidney is

(a) Shorter and wider (b) Shorter and narrower

(c) Longer and wider (d) Longer and narrower

(35) Diabities incipidus is due to

(a) Hyposecretion of vasopressin (b) Hyposecretion of insulin

(c) Hyposecretion insulin (d) Hyposecretion vaspresssin

(36) Inflammation of joints due to accumulation of uric acid crystals is called as ...

(a) Gout (b)Myasthenia gravis

(c)Osteoporosis (d)Osteomalacia

(37) Protein rich diet bring about relatively no change in one of the following constituents of urine

(A)Urea (b) Creatinine (c) Uric acid (D)Ammonium salts

(38) the least toric nitrogen waste of urine is

(a) Ammonia (b) Allantois (c) Urea (d) Uric acid

(39) Deamination is proccess in which ...

(a) Poisonous urea is removed from the blood and it occures in kidney

(b) Amino acid is absorbed from the digested food and it occur in intestinal

(c) Amino acid combined with ammonia to from protein

(d) Amino acid broken down to release CO_2 and NH_2

(40) Find the incorrect statement regarding mechanism of urine formation in man

(a) The glomerular filteration rate is about 125 ml/min

(b) Tubular secretion takes place in the PCT

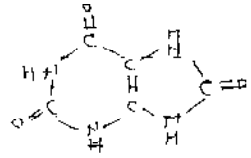
(c) Aldostrone induces greater reabsorption of sodium

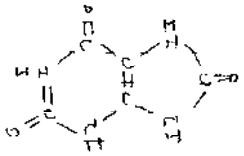
(d) The counter current system contributes in diluting the urine

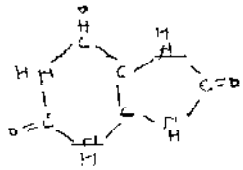
(41) Transmination process takes place in

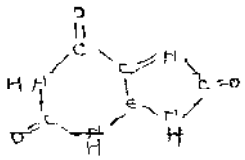
(a) Liver (b) Kidney (c) Heart (d) All of above

(42) Structural formula of uric acid is ..... .

((a) 

(b) 

(c) 

(d) 

(43) According to solubility in water

(a) NH_3 > uric acid > urea (b) NH_3 > urea > uric acid

(c) Uric acid> urea > NH_3 (d) Uric acid > NH_3 > urea

(44) Passage of urine

(a) Duct of belini - urethra - ureters - urinarray bladder

(b) Urinary bladder - urethra - urters - calyces

(c) Duct of ballini - calyces - urethra - urinary bladder

(d) Duct of bellini - calyces - ureters - urinary bladder

(45) How many NH_3 required for a urea...

(a) 1 (b) 2 (c) 3 (d) 4

(46) Loop of henle and collecting ducts are locketed in kidney is....

(a) Cortex (b) Medulla pyramid (c) Columns of bertini (d) Calyces

(47) The nature of nitroginious waste and their excretion depend on the large amount of

(a) $C_6H_{12}O_6$ (b) NH_2CONH_2 (c) H_2O (d) CO_2

(48) A process takes place in PCT is

(a) Absorption of H+ to maintain PH

(b) Secretion of buffer HCO_3

(c) Reabsorption of NACL

(d) Secretion of urea

(49) In cortical nephrones (LOH = Loop of henle)
(a) LOH is long (b) coloecting tubule is short
(c) LOH is sort (d) Absesnce of LOH

(50) Peritubuler is in
(a) Cortex (b) Deep in medulla (c) Calyces (d) Surround to duct of bellini

(51) Osmolarity of interstitial fluid in cortex is
(a) 1200 mosmoiL^{-1} (b) 900 mosmoiL^{-1} (c) 600 mosmoiL^{-1} (d) 300 mosmoiL^{-1}

(52) Urine produced by human kidney is concertratal by _____ times than the initial filtrate formed
(a) 2 (b) 300 (c) 4 (d) 1200

(53) Involving mainly in RAAS
(a) Angiotensin (b) Aldosteron (c) Renin (d) All of these

(54) Function of ANF is
(a) Increase the blood pressure (b) Decrease the blood pressure
(c) Diulting the blood (d) Concentrating the blood

(55) Renin is secreted by
(a) PCT (b) DCT (c) LOH (d) JG cells

(56) In Amoeba amonia is excreted by
(a) Food vacuole (b) Coutractile vacuole (c) Plasma membrance (d) All of these

(57) Angitensigngen I is secreted by
(a) Pencreas (b) JG cells (c) Liver (d) Kidney

(58) Angitensinogen is converted in Angiotensin by
(a) dil HCl (b) casein (c) Renin (d) Hippuric acid

(59) Secretion of renin from JG cell is due to
(a) A fall gloerular blood flow (b) glomerular blood pressure
(c) GFR (d) All of these

(60) ADH is secerted by
(a) Liver (b) Neurohypophysis (c) Kidney (d) JG cells

(61) It is also acivate the adraral cortex to release aldosterone
(a) Angiotensin II (b) Adrenal gland (c) Cortisol (d) ADH

(62) It is activated us he change of blood volume and volume of body fluid
(a) Medulla oblongata (b) Osmoreceptor (c) Aorta (d) Renal vein

(63) It increases excretion of ca+2 in the kidney
(a) Prostaglandin (b) Renin (c) Thyrocalcitonin (D)Angiotensin

(64) Elimination f insoluble calcium phophate takes place by

(a) Kidney (b) Liver (c) Lungs (d) Large intestine

(65) The function of renin is

(a) Degradation of angiotensinogen (b) Stimulation of corpus luteum

(c) To reduce blood pressure (d) Vasodilation

(66) For release of Urine

(a) Urinary bTrack contracts (b) Urinary track relaxes

(c) Ureter relaxes (d) Ureter contracts

(67) Presence of blood in urine is known as

(a) Glycosuria (b) Aoligourea (c) Hemetourea (d) Kitonurea

(68) Presence of excessive ammount urea in blood is known as

(a) Uremia (b) Hemeturia (c) Diurea (d) Aniurea

(69) Longest loop of henle is found in

(a) Kangaroorat (b) Rhesus monkey (c) Dog (d) Frog

(70) Marine teleost fishes excrete

(a) Uric acid (b) Ammonia (c) Urea (d) None of these

(71) Sebaceous glands discharge

(a) Water, salts, NaCl, Lactic acid (b) Water, salts, NaCl, Fatty acid

(c) Water, sterols, fatty acid hydrobarbos (d) Water, sterols, latic acid, NaCl

(72) Sweat gland secretion consist of

(a) Water, salts, NaCl, Lactic acid (b) Water, salts, NaCl, Fatty acid

(c) Water, sterols, fatty acid hydrobarbos (d) Water, sterols, latic acid, NaCl

(73) Kidney are

(a) Yellowwish brown (b) Reddish brown (c) Greenish yellow (d) Grey in colour

(74) kidney in human being occure in the region of:

(a) 10^{th} thoracic and first lumber vertebra (b) 12^{th} thoracic and second lumber vertebra

(c) 11^{th} thoracic and third lumber vertebra (d) 9^{th} thoracic and forth lumber vertebra

(75) (1) In human being NH_3 is convert in urea is liver

(2) Insect birds and land nail are urecotelic

(3) A small amount of water is wasted n excretion of anomia however not much energy is used in doing so.

(4) More energy is required in the preparation of urea but not a large amount of water is needed to be lost

(a) TFFF (b) TFFT (c) TTFT (D)TTTF

(76) (1) The outer surface of the kidney is concave while inner is convex

(2) The projection of renal pelvis are called collecting duct

(3) Renal columns called columns of bertini

(4) Afferent renal arterioles are narrower then efferent renal arteriioles

(a) FFTF (b) FTTF (c) FFTT (d) FTFF

(77) (1) In PCT the filterate is hypertonic to nblood plasma

(2) In DCT the filterrte is hypertonic to blood plasma

(3) Decending limb of LOH is permecable to water but nearly imperable to salts

(4) Ascending limb of LOH is Segment to water but nearly imperable to salts

(a) FTFT (b) FTTF (c) TFTT (d) FFTF

- Match the items of columns I with those of column II

(78)

Column I	**column II**
(P) Uremia	(i) excee of protein level in urine
(Q) Haematuria`	(ii) Presence of high Ketone bodies in urine
(R) Ketonuria	(iii) Presence of blood cells in urine
(S) Glucosuria	(iv) presence of glucose in urine
(T) proteinuria	(v) presence of urea in blood

	P	**Q**	**R**	**S**	**T**
(a)	v	iii	iv	ii	i
(b)	v	iii	ii	i	iv
(c)	iv	v	iii	ii	i
(d)	v	iii	ii	iv	i

(79)

Column I	**column II**
(P) Ultrafilteration	(i) Henle's loop
(Q) concentratyion of urine	(ii) Ureter
(R) transport of urine	(iii) urinary bladder
(S) storage of urine	(iv) Malipigian corpuscles
	(v) Proxmal convoluid tabule

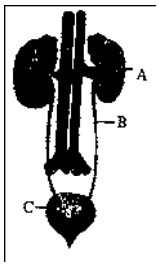
	P	**Q**	**R**	**S**
(a)	v	ii	iii	iv
(b)	iv	i	iii	ii
(c)	iv	i	ii	iii
(d)	i	ii	iii	iv

(80)

Column I	**column II**
(P) Excretory oragans	(i) Hydra
(Q) Nephiridia	(ii) Leech
(R) Malpighian tubles	(iii) Shark
(S) Kidneys	(iv) Lound warms
	(v) cockroach

	P	**Q**	**R**	**S**
(a)	ii	v	iii	iv
(b)	ii	v	iv	iii
(c)	ii	iv	v	iii
(d)	ii	i	iii	iv

(81) In given figure represent A.B.C. respectively



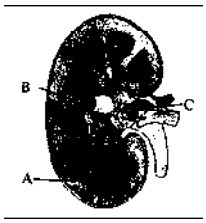
(a) Kidney, ureter, urinary bladder

(b) Adrinal gland, urinary blader, urethra

(c) Urinary bladder, kidney, ureter

(d) Bloodvessel, kidney, urinarry bladder

(82) In given figure represent A.B.C. respectively



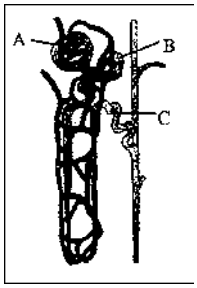
(a) Cortex, pelvis, ureter

(b) Cortex, columnof bertiny, renel pelvis

(c) Cortex, renal pelvis, renalvein

(d) Cortex, renalpyramid, renal pelvis

(83) In given figure represent A.B.C. respectively



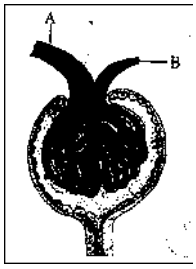
(a) Malpighianbody, DCT, PCT

(b) Glomerulus, PCT, DCT

(c) Glomerulus, loop of henle, DCT

(d) Glomerulus, loop of henle, PCT

(84) In given figure represent A.B.C. respectively



(a) Afferent venual Efferent venual

(b) Efferent venual Afferent venual

(c) Afferent arterrole Efferent venual

(D)Afferent arterrole Efferent arterrole

Question based on various competitive Examination:-

(85) Main function of uriniferous tubules (MP PMT 1990)
(a) Concentration of urine
(b) Passage of urine
(c) Reabsorption of useful substances from glomerular filtrate
(d) Removal of urea and other waste from blood

(86) The mechnism of urine foundation nephrone involves (CPMT 1992)
(a) Utrafication (b) Secretion
(c) Reabsorption (d) All of above

(87) Which hormone induced the process of reabsorption from glomerouous? (JKCMME 92)
(a) Oxytosin (b) Vasopression (c) Relkgin (d) Calsitonin

(88) Glucose is reabsorbed from glomerular filterate though (CBSE 1993)
(a) Active transport (b) Passive transport (c) Osmosis (d) Difusion

(89) Excretory product of birds and raptiles is (CPMT 1998)
(a) Urea (b) Uric acid (c) Ammonia (d) Creatinin

(90) Part not belonging to urinferous tubule is (CBSE 1994)
(a) Glomerules (b) Henle's loop
(c) Distal convoluted tuble (d) Connecting tubule

(91) the two kidneys lie: (MP PMT 1995)
(a) At the level of ovaries
(b) At the same level
(c) Left kidney at a higher level than the ight one
(d) Right kidney at a higher level than the left one

(92) Which blood vessel takes blood away from kidney? (DPMT 1996)
(a) Renal portal vein (b) Renal vein (c) Afferent arteiote (d) Efferent artribute

(93) Which hormone influence the activity of kidney? (BHV 1996)
(a) Vasopression (b) Thyoxine (c) Vasopression & aldosterone (d) Gonadotrophin

(94) NA^+ and Cl^- are absorbed in kidney in the region of
(a) Ascending limb of henel's loop (b) decending limb of henel's loop
(c) DCT (d) PCT

(95) Blood which leaves liver and pases towardds heart has higher concentrattion of (BHU 1999)
(a) Bile (b) Oxygen (c) RBC_S (d) Urea

(96) Urea is transformed through (AIIMS 2000)
(a) RBC_S (b) WBC_S (c) blood plasma (d) All of above

(97) A person underoing protonged fsting his urine will be ound to contain abnormal quantities of (MP PMT 2005)

(a) Fats (b) Ammino acid (c) Glucose (d) Ketones

(98) The net pressure glaient that cause the luid to filler out the glomeruti into thecapsule is (PMT 2005)

(a) 50 mm hg (b) 75 mm hg (c) 20 mm hg (d) 30 mm hg

(99) In ornithin cycle which of the following waste are removed from the blood? (PMT 2005)

(a) CO_2 and urea (b) Ammonia and urea (c) CO_2 and ammonia (d) Urea and urine

(100) Angiotensinogen is a protein produced an recreted by.. (AIPMT 2006)

(a) Tuxta glomerular (JG) cells (b) Macula densa cells

(c) Endothelial cells of blood vessels (d) Liver cells

(101) A person who is oon a long hunger strike and is surving only on water will have (AIPMT 07)

(a) Less amino acids in his urine (b) More glucose in this blood

(c) Less urea in his urine (d) More sodium in his urine

(102) What will happen if the stretch receptor of the urinary bladder wall are totally removed ?

(a) Micturition will continue (b) Urine will continue to collect normally in the bladder

(c) These will be no nicturition (d) Urine will not collect in the bladder

(103) Uric acid is the chief nitrogenous component of the excretory product of (AIIPMT 2009)

(a) Earthwarm (b) Cockroach (c) Frog (d) Man

(104) Which one of the following statement is impereble to water

(a) Descending limb of loop of henle is impereable to water

(b) DCT is incapable of reabsorbing HCO_3

(c) Nearly 99% of the glomerular filterate is reasorbed by the renal tubules

(d) Ascending limb of loop of henle is impereable to water

(105) The principal nitrogenous excretory compound in human is synthesised (AIIPMT 2010)

(a) In kidney but eliminted mostly though liver

(b) In kidney as well as eliminated by kidneys

(c) In the liver but eliminated mostly kidneys

(d) In the liver and also eliminated mostly by the same bile

(106) Which are of the following is not a part of a renal pyramid?

(a) Peritubular capilariers (b) Conoluted tubules

(c) Collecting ducts (d) Loop of Henle's

(107) uricotelic mode of excreting nitrogenous waste is found in (AIIPMT 2011)

(a) Reptiles and birds (b) Birds and annelids

(c) Amphibianls and reptiles (d) Insects and amphibians

(108) A fall in glemerular filtration rate (GFR) (AIIPMT 2012)
(a) Juxtaglomerular alls to realase remin
(b) Adrenal cortex to release aldosterone
(c) Adrenal medulla to release adernaline
(d) Dosterior pituitary to release ADH

(109) Haemodialysis is also called as artificial: (HarPMT 2002,Kerala 2002)
(a) Liver (b) Lung (c) Heart (d) Kidney

(110) which one is an accessory excretory organ? (CET chd 2002)
(a) Liver (b) Stomach (c) intertine (d) Heart

(111) Part of nephron involved in active reabsorption of sodium is (JIPMER 2002)
(a) PCT (b) Ascending limb of Henle's loop (c) Bowman's capsule (d) DCT

(112) Haemodialysis helps the paitent having (JIPMER 2004)
(a) Goitre (b) Anaemia (c) Uremia (d) Diabetes

(113) Lungs expel (MH 2005)
(a) CO_2 (b) H_2O
(c) CO_2 and water (d) CO_2 and water vapours

(114) The glomenuli are continued to the (CPMT 88)
(a) Medulla (b) Calyces
(c) Cortex (d) REnal Pelvis

(115) The kidney of adult mammals are (MP PMT 99)
(a) Opisthonephron (b) pronephros (c) Mesonephros (d) rletanaphros

(116) A kidney stone is (CPMT 88, Manipal 05)(Kerala 2003)
(a) Blockage by fats
(b) Desposition of sand in kidney
(c) A salt such as Oxalate crystallised in pelvis
(d) Blockage by proteins

(117) Which of the following is both osmoregulator as well as nitrogenours product (DPMT 07)
(a) NH_3 (b) Urea (c) Uric acid (d) All of these

(118) which of these is not a keton body (CPMT 04)
(a) Asetoacetic acid (b) Acetone (c) Succinic acid (d) Betabychoxy butyric acid

(119) Maximum reabsorption of useful substance occurs in the region of nephron:
(a) Henle's loop (b) Glomeruls (c) PCT (d) DCT

(120) Excertory organs of cockroach are (Kerala PMT 07)
(a) Malpighian corpucles (b) Malpighian tubules
(c) Hepetic caecae (d) Green glands

(121) Consider the following statement:

A. Flame cElls are excretory structures of flat worms

B. Green glands are excetory organs of annelids

C. Columns of Bertini are conial propertions of renal pelvis into renal medulla between the renal pyramids

(a) A and B correct (b) B and C incorrect

(c) A and C incorrect (d) B and C correct

(122) Juxta glomerular cells of renal cortex synthesize a hormone called: (BHV 2007)

(a) ADH (b) Oxytocin (c) Renin (d) Urochrom

(123) RAAS secretes which of the following hormones?

(a) Mineralocorticoids (b) glucoticoids

(c) Both A and B (d) None of these

(124) Which blood vessel carries least ammount of urea? (HAR PMT 2005)

(a) Pulmonary vein (b) Renal artery(c) Renal vein (d) Hepatic portal vein

(125) Kidney stone are (Kerala PMT 2003)

(a) Crystals of sillica (b) crystals of Nacl (c) Cystals of Oxalate (d) Crystals of $Nahco_3$

- **Assertion & reason** Read the assertion and reason carefully to mark the correct option out of the option given bellow

(a) If both the 'A' and 'R' true and 'R' is a correct explaination of 'A'

(b) If both the 'A' and 'R' true and 'R' isnot a correct explaination of 'A'

(C)If A is true the R is false

(D)If A is false the R is true

(126) A: Ammonia should be eliminated from the body as rapidly as it s formed.

R: Ammonia is insoluble in water.

(a) (b) (c) (d)

(127) A: Aquatic mammals lie whates and seals are said to be urcotetic animals.

R: It is because of the fact that their main nitrogenous waste product is urea.

(a) (b) (c) (d)

(128) A: In the descending limb of loop of henle the urine is hypertonic while in ascending limb of loop of henle the urine is hypotenic.

R: Descending Limb is imperable to Na+ while ascending limb is imperable to H_2O.

(a) (b) (c) (d)

(129) A: The antidiuretic hormone increses the water permeability of distal convoluted tubule.

R: In absesnce of ADH water reabsorption is considerably reduced.

(a) (b) (c) (d)

(130) A: Urea is a less toxic excretory substance comparatively to uric acid.

R: Birds and insect are uricetolic animals.

(a) (b) (c) (d)

(131) A: Mammals living in deserts contain more concentrated urine.

R: They contain very long loop of Henle in their nephrons.

(a) (b) (c) (d)

(132) A: Most excretory substance are in soluble in water in human.

R: Water itself considered a waste product.

(a) (b) (c) (d)

(133) A: Durring physiology of excretion deamination take place in liver.

R: The process of excretion of ammonia is called ammonotelism.

(a) (b) (c) (d)

(134) A: Utilization of water and consumption of energy for elimination of waste product are inversely proportional.

R: Ammonia is the less toxic and can be eliminated with large ammount of water.

(a) (b) (c) (d)

(135) A: Left Kidney is situated slight lower than right kidney.

R: The right side of the andominal cality is occupied by liver.

(a) (b) (c) (d)

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Questionbank Biology

ANSWER KEY

1	c	26	d	51	d	76	a	101	c	126	c
2	c	27	b	52	c	77	d	102	d	127	a
3	a	28	c	53	d	78	d	103	b	128	a
4	a	29	b	54	b	79	c	104	c	129	b
5	b	30	c	55	d	80	b	105	c	130	d
6	a	31	b	56	b	81	a	106	b	131	a
7	b	32	b	57	c	82	b	107	a	132	c
8	a	33	d	58	c	83	b	108	a	133	b
9	d	34	a	59	d	84	d	109	d	134	c
10	a	35	a	60	b	85	a	110	a	135	d
11	b	36	c	61	a	86	d	111	b		
12	d	37	d	62	b	87	b	112	c		
13	b	38	d	63	c	88	a	113	d		
14	d	39	d	64	d	89	b	114	c		
15	b	40	d	65	a	90	d	115	d		
16	d	41	a	66	b	91	c	116	c		
17	b	42	a	67	c	92	b	117	b		
18	c	43	b	68	a	93	c	118	c		
19	b	44	d	69	a	94	a	119	c		
20	c	45	b	70	d	95	d	120	b		
21	b	46	b	71	b	96	c	121	b		
22	b	47	c	72	c	97	d	122	c		
23	c	48	c	73	b	98	c	123	a		
24	b	49	c	74	b	99	c	124	c		
25	c	50	a	75	c	100	d	125	c		

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