



BIOLOGY

BOOKS - TRUEMAN'S BIOLOGY (ENGLISH)

EXCRETORY PRODUCTS AND THEIR ELIMINATION

Multiple Choice Ouestions

1. The reabsorption of glucose from the glomerular filtrate is due

to

A. high osmotic pressure of filtrate

B. passive diffusion

C. secondary active transport across the walls of proximal

convoluted part

D. filtration pressure exerted on the fluids in the loop of

Henle

Answer: B

Watch Video Solution

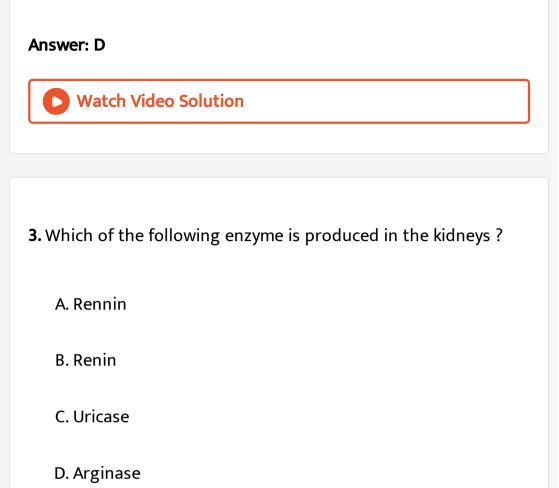
2. Physiologically urea is produced by the action of an enzyme

A. uricase

B. urease

C. arginase

D. none



Answer: A



4. Glomeruli are confined to

A. Cortex

B. Medulla

C. Pelvis

D. Pyramid

Answer: A

Watch Video Solution

5. Blood fraction remaining unchanged after circulation through

kidney is

A. urea and uric acid

B. urea and protiens

C. urea and glucose

D. glucose and protiens

Answer: A

6. Osmoregulation is the control over the

Watch Video Solution

A. pH of the blood

B. removal of nitrogen from the body

C. osmotic properties of cell membranes

D. concentration of salts and water in the body

Answer: A



7. The osmoregulatory tissue in all animals is

A. muscle

B. nervous

C. epithelial

D. connective

Answer: C

Watch Video Solution

8. Osmoconformers are the animal that

A. actively control the osmotic condition of their body fluid

B. do not actively control the osmotic condition of their body

fluid

C. maintain the condition of body fluid within a narrow

osmotic range

D. do not change the body fluid according to the osmolarity

of ambient medium

Answer: A

Watch Video Solution

9. The most important function of the mammalian kidney is the

A. control of reproduction

B. regulation of amount of protein in the blood

C. control of amount of protein in the blood

D. regulation of osmotic concentration of body fluid

Answer: C

Watch Video Solution

10. Which of these is not a general function of the kidney?

A. Regulation of blood volume

B. Regulation of vitamin-A synthesis

C. Regulation of solute concentration in the blood

D. Regulation of the pH of the extracellular fluid

Answer: B



11. Mammalian kidney resemble contractile vacuole of Amoeba in

excretion of

A. salts

B. glucose

C. excess water

D. ures and uric acid

Answer: A



12. Consider the following statements

A. Flame cells are excretory structures in flatworms

B. Green glands are excretory organs in annelids

C. Columns of Bertini are the conical projections of renal pelvis into medulla between the renal pyramids

A. B and C incorrect

B. A and B correct

C. A and C correct

D. A, B and C correct

Answer: B

Watch Video Solution

13. In rabbit and humans, the kidney is

A. pronephric

B. metanephric

C. mesonephric

D. none of the above

Answer: B

Watch Video Solution

14. The retroperitoneal kidney is one covered by peritoneum on

A. dorsal side

B. ventral side

C. lateral side

D. dorsal and ventral sides

Answer: B



15. The two kidneys lie in man

A. at the same level

B. at the level of ovaries

C. left kidney at a higher level than the right one

D. right kidney at a higher level than the left one

Answer: B

Watch Video Solution

16. The layer of fibrous connective tissue that surrounds each kidney is

A. renal sinus

B. renal pelvis

C. renal capsule

D. perirenal fat

Answer: B



17. The part through which arteries and veins enter or leave the

kidney is called

A. hilum

B. renal pore

C. major calyces

D. minor calyces

Answer: A
Vatch Video Solution
18. The cortex of the kidney contains
A. hilum
B. glomeruli
C. renal pelvis
D. renal pyramids

Answer: b



19. The broad commencement of ureter in the mammalian kidney

is

A. hilum

B. pelvis

C. calyx

D. Pyramid

Answer: D

Watch Video Solution

20. "Columns of Bertini" in the kidney of mommals are formed as

the extension of

A. pelvis in ureter

B. cortex in medulla

C. medulla in cortex

D. medulla in pelvis

Answer: B



21. Duct of Bellini opens on :

A. DCT

B. Ureter

C. renal pelvis

D. Collecting duct

Answer: B

22. Which of the following is not correct with respect to human kidney?

- A. The peripheral region is called cortex and central medulla
- B. Malpighian corpuscles are present in the cortex region
- C. Blood leaves glomerulus through efferent venules
- D. The concave part of kidney is called hilus

Answer: C

Watch Video Solution

23. Malphigian body is constituted by

A. glomerulus only

B. glomerulus and efferent vessel

C. glomerulus and afferent vessel

D. glomerulus and Bowman's capsule

Answer: D

Watch Video Solution

24. Number of nephrons of a kidney is equal to

A. the number of Bowman's capsules

B. sum of Bowman's capsules and glomeruli

C. double the number of Bowman's capsules

D. sum of Bowman's capsules and Malpighian corpuscles

Answer: D

Watch Video Solution

25. Which is true about the difference between cortical and juxtamedullary nephrons?

A. Majority of nephrons are juxtamedullary

B. Glomeruli and loops of Henle of cortiocal nephrons lie

completely in cortex

C. The afferent arterioles of the juxtamedullary nephrons

give rise to most of vasarecta

D. Cortical nephrons lack vasa recta

Answer: A

26. In a glomerulus,

A. afferent arteriole has wider lumen than efferent arteriole

B. afferent arteriole has narrower lumen than efferent

arteriole

C. afferent capillaries are thicker than efferent capillaries

D. afferent capillaries are thinner than efferent capillaries

Answer: A



27. Blood vessel draining the glomerulus in a mammalian nephron is called

A. renal artery and is wider than the vessel entering it

B. afferent arteriole and is wider than the vessel entering it

C. efferent venule and is narrower than the vessel entering it

D. efferent arteriole and is narrower than the vessel entering

it

Answer: B

> Watch Video Solution

28. Inner layer of Bowman's capsule consists of

A. podocytes

B. nephridia

C. osteocytes

D. choanocytes

Answer: A



29. Brush border is characteristic of

A. proximal convoluted tubule

B. Bowman's capsule

C. Glomerulus

D. all of the above

Answer: A

Watch Video Solution

30. In a mammalian kidney, loops of Henle are mainly located in

A. pelvis

B. cortex

C. medulla

D. major calyx

Answer: A

Watch Video Solution

31. The animal that excretes amino acids without deamination is

A. Rana

B. Unio

C. Earthworm

D. Labeo

Answer: A



32. Which of the following is the most toxic nitrogenous waste?

A. Carbon dioxide

B. Urea

C. Uric acid

D. Ammonia

Answer: D

Watch Video Solution

33. Which of the following is first formed nitrogenous waste of vertebrate?

A. NH_3

B. Carbon dioxide

C. Alanine

D. Urea

Answer: A

Watch Video Solution

34. With respect to mode of excretion, which type of organism

bony fishes are

A. Ureotelic

B. Uricotelic

C. Ammonotelic

D. Osmoconformers

Answer: C



35. Frog's tadpoles are

A. ureotelic

B. uricotelic

C. aminotelic

D. ammonotelic

Answer: D



36. Shifting of ammonotelism to ureotelism is seen in

A. Frog

B. Fishes

C. Birds

D. Man

Answer: A

Watch Video Solution

37. Ammonotelic animals are predominantly

A. aerial

B. aquatic

C. parasitic

D. terrestrial

Answer: B



38. Which animal is not ammonotelic?

A. Whale

B. Bony Fishes

C. Crocodile

D. Tadpole

Answer: D



39. Which one is the most soluble in water?

A. Urea

B. Cholesterol

C. Uric acid

D. Fatty acids

Answer: C

> Watch Video Solution

40. Nitrogenous waste products are eliminated mainly as

A. urea in both frog and tadpole

B. uric acid in frog and urea in tadpole

C. urea in frog and ammonia in tadpole

D. urea in tadpole and ammonia in frog

Answer: D



41. Urea is the breakdown product of

A. lipids

B. glucose

C. fatty acids

D. amino acid

Answer: A



42. Excretion in the form of uric and urates in birds is helpful in

A. conserving water

B. conserving body heat

C. eliminating excess water

D. eliminating excess body heat

Answer: B

Watch Video Solution

43. Insects are

A. ureotelic

B. aminotelic

C. ammonotelic

D. uricotelic

Answer: D



44. Excretion of nitrogenous waster in semisolid form is found in

A. amniotes

B. aquatic animals

C. ureotelic animals

D. uricotelic animals

Answer: A



45. Uric acid is formed from

A. glucose

B. purines

C. proteins

D. pyrimidines

Answer: D

> Watch Video Solution

46. Excretion of bile pigments in the urine indicates

A. rickets

B. jaundice

C. diabetes

D. anaemia

Answer: B



47. Removal of amino group of amino acid to transform it into

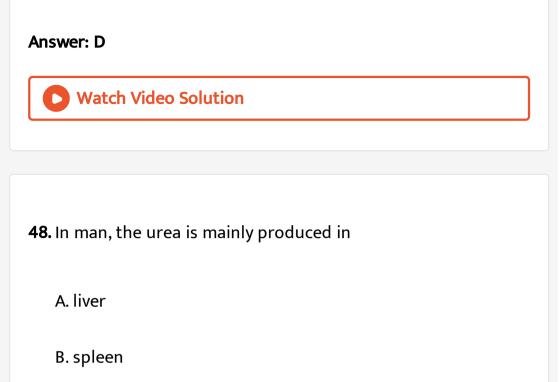
keto acid is

A. transamination

B. ammonification

C. deamination

D. none of these



C. kidneys

D. gall bladder

Answer: D



49. Ornithine cycle refers to the sequence of biochemical reactions taking place in the

A. liver

B. kidney

C. stomach

D. pancreas

Answer: B

Watch Video Solution

50. In living beings ammonia is converted into urea through

A. arginine cycle

B. ornithine cycle

C. fumarine cycle

D. citrulline cycle

Answer: D

Watch Video Solution

51. Ornithine cycle was discovered by

A. Ornithine

B. Calvin

C. Watson

D. Krebs and Henseleit

Answer: D

Watch Video Solution

52. The urea is formed from an amino acid

A. lysine

B. cysteine

C. arginine

D. methionine

Answer: A

Watch Video Solution

53. Amino acids participating in ornithine cycle are

A. arginine, lysine and citrulline

B. ornithine, arginine and glycine

C. arginine, citrulline and ornithine

D. ornithine, arginine and glutamic acid

Answer: B

Watch Video Solution

54. To convert ammonia into urea, the liver cells require

A. water

B. sulphur

C. oxygen

D. carbon dioxide

Answer: B

Watch Video Solution

55. Which enzyme is associated with production of urea?

A. Urease

B. Arginase

C. Aspartase

D. Glutaminase

Answer: A

Watch Video Solution

56. What is true of urea biosynthesis

A. Uric acid is starting point

B. Urea is synthesized in kidney

C. Urea is synthesized in lysosomes

D. Urea cycle enzymes are located inside mitochondria and

cytosol

Answer: D



57. At which stage of ornithine cycle arginase is used

A. ornithine \rightarrow urea

B. arginine \rightarrow ornithine

C. ornithine \rightarrow citrulline

D. citrulline \rightarrow arginosuccinic acid

Answer: D



58. If liver is removed, which component of blood will increase ?

A. Urea

B. Protein

C. Uric acid

D. Ammonia

Answer: D

Watch Video Solution

59. First step in urine formation is

A. Ultrafiltration

- B. Tubular secretion
- C. Selective secretion
- D. Tubular reabsorption

Answer: A



60. In kidney, glomerulus is involved in

A. blood filtration for urine formation

B. reabsorption of salts

C. urine collection

D. all of the above

Answer: D

61. Which of the following will lead to an increase in glomerular fluid filtration in the kidneys?

A. An increase in the protein concentration in the plasma

B. An increase im the fluid pressure in Bowman's space

C. An increase in the glomerular capillary blood pressure

D. A decrease in the glomerular capillary blood pressure

Answer: B



62. The glomerular filtrate i.e., the liquid collected in the cavity of

Bowman's capsule is

A. plasma

B. urine

C. blood minus proteins

D. blood minus proteins and corpuscles

Answer: C

Vatch Video Solution

63. Glomerular filtrate contains glucose in comparison to plasmsa

A. nil

B. equal

C. lower

D. higher

Answer: C

Watch Video Solution

64. Which of the following is most likely to cause an increase in

the glomerular filtration rate?

A. Volume depletion

- B. Blockage of ureter
- C. Dilation of the afferent arterioles
- D. Release of Aldosterone from pituitary

Answer: D

Watch Video Solution

65. If the diameter of the afferent renal arteriole is decreased and that of efferent renal arteriole is increased, the ultrafiltration will

A. be faster

B. be slower

C. not takes place

D. take place with the same speed

Answer: B

Watch Video Solution

66. When does glomerular filtration occurs in Bowman's capsule?

A. When hydrostatic pressure of blood in the glomerulus is

70 mmHg and net filtrate pressure is - 25 mmHg

B. When hydrostatic pressure of blood in the glomerulus is

70 mmHg and net filtrate pressure is - 35 mmHg

C. When hydrostatic pressure of blood in the glomerulus is

75 mmHg and net filtrate pressure is 25 mmHg

D. When hydrostatic pressure of blood in the glomerulus is

70 mmHg and net filtrate pressure is - 70 mmHg

Answer: B



67. Ultrafiltration occurs in a glomerulus when

A. hydrostatic pressure exceeds osmotic pressure

B. osmotic pressure exceeds hydrostatic pressure

C. glomerular hydrostatic pressure exceeds capsular

hydrostatic pressure

D. colloidal osmotic pressure plus capsular pressure remain

less than blood hydrostatic pressure

Answer: b

Watch Video Solution

68. Total filtrate formed in 24 hours in human kidney is

A. 1 - 2 litre

B. 8.0 litre

C. 18 litre

D. 180 litre

Answer: A

Watch Video Solution

69. In human beings the capsular urine entering the Proximal Convoluted Tubule (PCT) is

A. isotonic to blood

B. hypotonic to blood

C. isotonic to seawater

D. hypertonic to blood

Answer: A



70. Which of these will be completely reabsorbed from glomerular filtrate normal conditions in the nephrons?

A. Urea

B. Salts

C. Glucose

D. Uric acid

Answer: C



71. Most of the glucose that is filtered through the glomerulus

undergoes reabsorption in

A. distal tubule

B. collecting duct

C. proximal tubule

D. ascending limb of the loop of Henle

Answer: C

Watch Video Solution

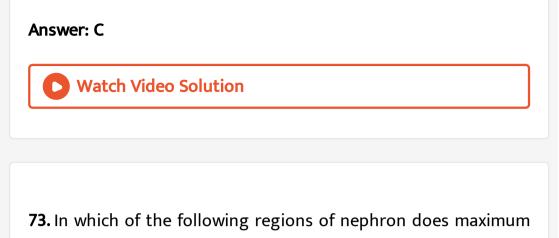
72. Absorptin of Na^+ and K^+ ions does not occur in :-

A. Loop of Henle

B. Bowman's capsule

C. Distal convoluted tubule

D. Proximal convoluted tubule



reabsorption of useful substances takes place?

A. PCT

B. DCT

C. Henle's loop

D. Glomerulus

Answer: A

> Watch Video Solution

74. If Henle's loop were absent from mammalian nephron which

of the following is to be expected

A. The urine will be more dilute

B. There will be no urine formation

C. The urine will have more concentration

D. There will be hardly any change in the quality and quantity

of urine formed

Answer: C



75. Part of nephron impermeable to salt is

A. descending limb of loop of Henle

B. ascending limb of loop of Henle

C. Distal convoluted tubule

D. collecting ducts

Answer: C



76. Which part of nephron is impermeable to water

A. distal tubule

B. collecting duct

C. proximal tubule

D. ascending limb of Henle's loop

Answer: A



77. Reabsorption of water through the tubules manily occurs by

A. osmosis

B. active transport

C. facilitated diffusion

D. carrier transport

Answer: A

> Watch Video Solution

78. ADH will be released from the posterior pituitary when there

is a decrease in plasma

A. pH

B. volume

C. sodium concentration

D. osmotic pressure

Answer: D

Watch Video Solution

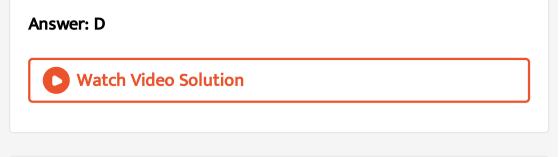
79. In deficiency of ADH, rate of micturition

A. increases

B. decreases

C. remains the same

D. none of these



80. Decreased level of ADH results in the prodction of

A. isotonic urine

B. hypertonic urine

C. hypotonic urine

D. none of these

Answer: C



81. Urine is concentrated with the help of

A. ADH only

B. Aldosterone only

C. Both of these

D. Urochrome

Answer: C

Watch Video Solution

82. In the renal tubules the permeability of the distal convoluted tubule and collecting duct to water is controlled by

A. renin

B. calcitonin

C. vasopressin

D. growth hormone

Answer: C

Watch Video Solution

83. Vasopressin stimulates reabsorption of water and reduction

of urine secretion. Hence vasopressin is otherwise called

A. angiotensin

B. neurotransmitter

C. antidiuretic hormone

D. growth regulating substance

Answer: D

Watch Video Solution

84. Diabetes insipidus is due to

A. excess of insulin

B. deficiency of insulin

C. hyposecretion of hypothalamic hormone

D. hypersecretion of pituitary hormone

Answer: C

Watch Video Solution

85. Sodium reabsorption from the distal tubule will be increased

if there is an increase in

A. ADH

B. plasma volume

- C. mean arterial pressure
- D. plasma potassium concentration

Answer: C

Watch Video Solution

86. Which is mismatched?

- A. PCT Reabsorption of Na^+ and K^+
- B. DCT Reabsorption of glucose
- C. Bowman's capsule Glomerular filtration
- D. Loop of Henle Reabsorption of water

Answer: b

87. The juxtaglomerular cells of the _____ and the macula densa

cells of the _____ form the juxta-glomerular apparatus.

A. afferent arteriole, proximal convoluted tubule

B. efferent arteriole, proximal convoluted tubule

C. afferent arteriole, distal convoluted tubule

D. vasa recta, distal convoluted tubule

Answer: C

Watch Video Solution

88. Which one is an important constituent of renin angiotensinogen-aldosterone system?

A. JGA cell

B. Plasma cell

C. Glomerulus

D. Erythropoietin

Answer: 1

Watch Video Solution

89. Aldosterone stimulates sodium reabsorption and potassium

secretion mainly in

A. descending limb of the loop of Henle

B. ascending limb of the loop of Henle

C. proximal convoluted tubule

D. distal convoluted tubule

Answer: C Watch Video Solution

90. Renin-angiotensin pathway mainly controls

A. ultrafiltration

B. cardiac output

C. blood pressure

D. glucose reabsorption

Answer: D



91. The function of renin is

A. degradation of angiotensinogen

- B. stimulation of corpus luteum
- C. to reduce blood pressure

D. vasodilation

Answer: C

Watch Video Solution

92. The function of angiotensin II is

A. to enhance the water and sodium reabsorption from renal

tubule

B. stimulation of adrenal medulla to secrete aldosterone

C. to decrease the heartbeat and dilate arterioles

D. all of the above

Answer: C



93. Kidney regulate the amount of

A. salts

B. proteins

C. enzymes

D. hormones

Answer: a

Watch Video Solution

94. Which of the following subtances is actively secreted into glomerular filtrate of the kidney tubule?

A. Glucose

 $\mathsf{B.}\,H^{\,+}$

C. Amino acids

D. Chloride ions

Answer: D

Watch Video Solution

95. Formation of hypertonic urine is mediated through

A. eating salt free diet

B. counter-current system

C. increased water intake

D. having small loop of Henle

Answer: D

Watch Video Solution

96. The yellow colour of urine is due to the presence of

A. urea

B. bilirubin

C. uric acid

D. Urochrome

Answer: A

Watch Video Solution

97. The amount of urine output per day by a normal human

beings is

A. 4-5 L

B. 1-2 L

C. 3-4 L

D. 500-750 mL

Answer: D

Watch Video Solution

98. Healthy human does not excrete out in his urine

A. Glucose

B. Uric acid

C. Creatinine

D. B-complex vitamins

Answer: D



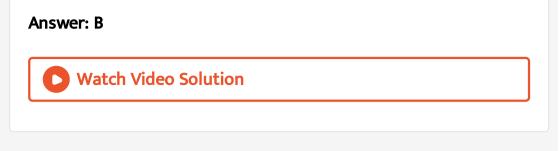
99. Which one of the following blood vessels in mammals would normally carry the largest amount of urea

A. Renal vein

B. Hepatic vein

C. Hepatic artery

D. Hepatic portal vein



100. Which blood vessel contains the least amount of urea?

A. Renal vein

B. Renal artery

C. Pulmonary vein

D. Hepatic portal vein

Answer: D



101. A substance not secreted by renal tubule

A. Glucose

B. Para-aminohippuric acid

C. Ammonia

D. Potassium ions

Answer: A

Watch Video Solution

102. A condition of failure of kidney to form urine is called

A. anuria

B. ketouria

C. hematuria

D. creatinine

Answer: C Watch Video Solution

103. Diuresis is a condition , which is characterized by

A. increases in urine volume

B. decrease in urine volume

C. increased glucose excertion

D. decrease in electrolyte balance

Answer: A



104. Which of the following will not lead to a diuresis?

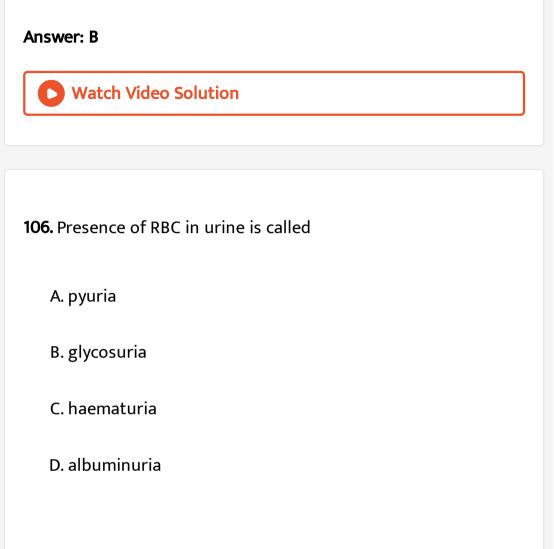
- A. Excessive sweating
- B. Deficiency of ADH
- C. Deficiency of insulin
- D. Excessive water intake

Answer: C



105. Which one of the following statements is false?

- A. Presence of glucose in urine is glycosuria
- B. Presence of excess urea in blood is uraemia
- C. Presence of albumin in urine is albuminuria
- D. Presence of ketose suger in urine is ketonuria



Answer: C



107. Glycosuria is the condition, where a man

A. eats more sugar

B. sugar is excreted in faeces

C. has low sugar level in blood

D. excretes sugar in urine

Answer: B



108. Glomerular filtrate is

1. formed continuously by the process of ultrafiltration occurring at Malpighian corpuscles, in which the blood cells and the colloidal macromolecules are not allowed to pass across the filtering surface

2. the electrolyte free fluid collected within the lumen of Bawman's capsule 3. the protein free fluid collected within the lumen of Bowman's capsule

4. formed by the process of selective reabsorption

A. 1, 2 and 3 are correct

B.1 and 2 are correct

C. 2 and 4 are correct

D.1 and 3 are correct

Answer: D



109. Proximal convoluted tubule (PCT) is lined with

A. cuboidal epithelium

B. columnar epithelium

C. simple squamous brush border epithelium

D. simple cuboidal brush border epithelium

Answer: C

Watch Video Solution

110. Renal fluid isotonic to cortical fluid and blood occurs in

A. collecting duct and ascending limb

B. descending limb and collecting duct

C. distal convoluted tubule and ascending limb

D. Proximal convoluted tubule and distal convoluted tubule

Answer: A

111. Which of the following is recovered in the collecting duct of

the nephron?

A. Potassium

B. Water

C. Glucose

D. Proteins

Answer: B

Watch Video Solution

112. Identify the correctly matched pair

- 1. Uraemia
- 2. Hyperglycemia
- 3. absence of factor VIII –
- 4. X-linked disorder
- Excessive amount of urea in blood
- Excess glucose in blood
- I Haemophilia
 - Glycosuria

A. 1 and 2 are correct

B. 2 and 4 are correct

C.1 and 3 are correct

D. 1,2 and 3 are correct

Answer: A

Watch Video Solution

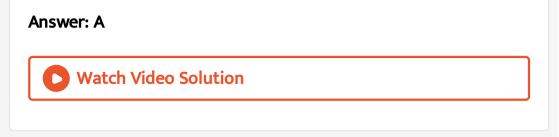
113. When a litre of water is introduced in human blood

A. BMR increases

B. BMR decreases

C. RBCs collapse and urine production decreases

D. RBCs collapse and urine production increases



114. Which of the following is removed from the filtrate at loop

of Henle?

A. Water

B. Glucose

C. Amino acid

D. Hormones

Answer: A

Watch Video Solution

115. The characteristic that is shared by urea. Uric acid and ammonia is/are

- (A) They are nitrogenous wastes
- (B) The all need very large amount of water for excretion
- (C) They are all equally toxic
- (D) They are produced in the kidneys

A. A only

B. A and C

C. A and D

D. A, C and D

Answer: A

Watch Video Solution

116. Select the incorrect statement regarding mechanism of urine formation in man.

A. Tubular secretion takes place in the PCT also

- B. Aldosterone induces greater reabsorption of sodium
- C. The counter current systems contrivute in diluting the

urine

D. The glomerular filtration rate is about 125 mL per minute

Answer: C



117. Which one of the following is correct with reference to haemodialysis?

A. The dialysis unit has a coiled cellophone tube

B. Anti-heparin is added prior to haemodialysis

C. Nitrogenous wastes are removed by active transport

D. Blood is pumped back through a suitable artery after

haemodialysis

Answer: D

Watch Video Solution

118. The average quantity of urea excreted in urine by man per

day is

A. 1-5 g

B. 25-30 g

C. 1-1.5 L

D. 80g

Answer: A



119. Select the correct statement

A. the ascending limb of the Henle's loop extends as the DCT

B. the Juxtamedullary nephrons have reduced Henle's loop

C. vasa recta is well developed in cortical nephrons

D. the glomerulus encloses the Bowman's capsule

Answer: A

Watch Video Solution

120. The condition where urea accumulates in blood is

A. glycosuria

B. uraemia

C. Ketonuria

D. acidosis

Answer: A



121. Glucose and amino acids are reabsorbed in

A. distal tubule

B. collecting duct

C. loop of Henle

D. proximal tubule

Answer: C

Watch Video Solution

122. The Bowman's capsule is mainly found in

A. cortex

B. medulla

C. renal pelvis

D. renal pyramids

Answer: A

Watch Video Solution

123. What is the correct sequence in Ornithine Cycle of urea

formation?

(i) Ornithine

(ii) Arginine

(iii) Arginosuccinic acid

(iv) Urea

(v) Citrulline

Select the correct answer using the codes given below

A. (i), (ii), (iii), (v), (iv)

B. (i), (v), (iii), (ii), (iv)

C. (i), (v), (ii), (iii), (iv)

D. (i), (iii), (v), (ii), (iv)

Answer: B



124. A fluorescent dye is utilized to 'tag' antidiuretic hormone receptors. The greatest concentration of dye is expected in which of the following structures?

A. Proximal convoluted tubule

B. Renal capillaries

C. Loop of Henle

D. Collecting duct

Answer: B

Watch Video Solution

125. All of the following are true except

A. Renin is secreted by Juxta glomerular cell

B. Juxta-glomerular cells are present in afferent arterioles

C. Renin causes conversion of Angiotensino-gen to

Angiotensin

D. Angiotensin II is a potent vasodilator

Answer: D

Watch Video Solution

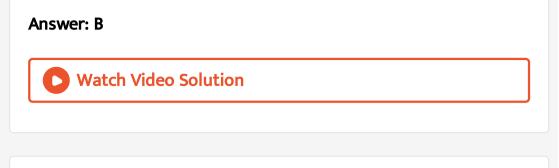
126. Which of the following is not secreted by the kidney?

A. Renin

B. Angiotensin I

C. Erythropoietin

D. 1, 25 Dihydroxycholecalecalciferol



127. All of the following are true about actions of - ANF except

A. decreased blood pressure

B. causes vasoconstriction

C. decreased sodium reabsorption

D. increased sodium excretion

Answer: B



128. A person stranded in the desert faces the risk of severe dehydration. Which of the following will be maximally stimulated to prevent water loss?

A. Anterior and posterior pituitary

B. Adrenal cortex and thyroid gland

C. Hypothalamus and adrenal gland

D. Adrenal gland and anterior pituitary

Answer: A

Watch Video Solution

129. Find out the correct statement about the loop of Henle

A. The descending limb is permeable to electrolytes

B. The descending limb is permeable to water

C. The ascending limb is permeable to water

D. The ascending limb is impermeable to electrolytes

Answer: B



130. Find the correct match of site and function of nephron

SITE FUNCTION

- A. DCT Reabsorption of Na^+ and K^+ from filtrate SITE FUNCTION
- ^{D.} Descending of loop of Henle Impermeable to water SITE FUNCTION
- ^{C.} PCT HCO_3^- absorption of filtrate

D.

SITE FUNCTION

DCT Massive reabsorption of H_2O & H^+, K^+ ions

Answer: B

Watch Video Solution

131. There are three organisms A, B, C.

A has to excrete Urea

B has to excrete Uric acid

C has to excrete Ammonia

Which out of these 3 organisms will have the maximum urine output?

A. C will produce more urine than B

B. B will produce more urine than C

C. B will produce more urine than A

D. C will produce less urine than A

Answer: A

Watch Video Solution

- 132. Find the correct statement regarding human kidney
 - A. The Bowman's capsule, PCT and DCT form the renal corpuscle.
 - B. Majority of nephrons are juxtamedullary nephrons
 - C. The kidneys lie between T_{12} and L_3 vertebral level
 - D. The coloumns of Bertini lie in the outer renal cortex area

Answer: C

Watch Video Solution

133. Consider the following statements

For osmoregulation in aquatic medium

1. A freshwater fish has to drink water continuously

2. A marine bony fish has to drink water continuously

3. A freshwater fish produces copious urine, which is hypoosmotic to blood

4. A marine fish produces scanty urine, which is hypo-osmotic to blood

Which of the statements given above is/are correct?

A.1 only

B.4 only

C. 1 and 4

D. 2 and 3

Answer: C

- **134.** The human kidney :
 - A. is responsible for the storage of nutrients such as glycogen
 - B. produces more dilute urine when the collecting ducta become less permeable to water
 - C. responds to antidiuretic hormone by increasing urine
 - output
 - D. get rid of urea from the body by secreting it into the

descending arm of the loop of Henle.

Answer: D

135. While doing some experiment with Amoeba proteus in a culture medium, it was found that the contractile vacuole of the protozoan disappeared although the other organelles showed normal activity. This must have been most probably due to

A. change in the temperature of the medium

B. change in the pH of the medium

C. dilution of the medium with tap water

D. dilution of the medium with sea water

Answer: D



136. The nephron is a hollow, convoluted tube of cells. It is engineered to concentrate urine by removing water at which of the following sites?

- I. Proximal convoluted tubule
- II. Descending limb of the loop of Henle
- III. Ascending limb of the loop of Henle

A. I only

B. II only

C. I and II only

D. I, II and III

Answer: C

Watch Video Solution

137. A substance is present in concentration of 2 mg % in the afferent arteriole and zero mg % in efferent. Thus true about the substance is

A. impermeable in loop of Henle

B. absorbed in PCT

C. secreted in cortical nephrons

D. freely filtered in glomerulus

Answer: D

Watch Video Solution

138. NaCl is more in the interstitial fluid of renal medulla than of

cortex because of

A. cortical loss of Na^+

B. counter current mechanism

C. vasa - recta have increased blood

D. proximal convoluted tubule is more permeable to $Na^{\,+}$

Answer: B

Watch Video Solution

139. Antidiuretic hormone has the most abundant receptors in

the kidneys of

A. frogs in tropical pond

B. rabbits in a grass land

C. spotted deer in moist evergreen forest.

D. Kangaroo rats in deserts

Answer: D

Watch Video Solution

140. All of the following are true except

- A. Renin is secreted by Juxta glomerular cells
- B. A fall in GFR can activate the JG cells to release renin which

can stimulate the glomerular blood flow.

C. It releases renin which converts angiotensinogen to

angiotensin II

D. Angiotensin II is a potent vasoconstrictor

Answer: C



141. Which of the following statements is correct?

A. ADH- prevents conversion of angiotensinogen in blood to

angiotensin

B. Aldosterone - facilitates water reabsorption

C. ANF- enhances sodium reabsorption

D. Renin - causes vasodilation

Answer: B

Watch Video Solution

142. The pH of human urine is approximately

A. 1.5

B. 7

C. 6

D. 7.5

Answer: C

Watch Video Solution

143. Which one of the following statements is incorrect?

A. Birds and land snails are uricotelic animals

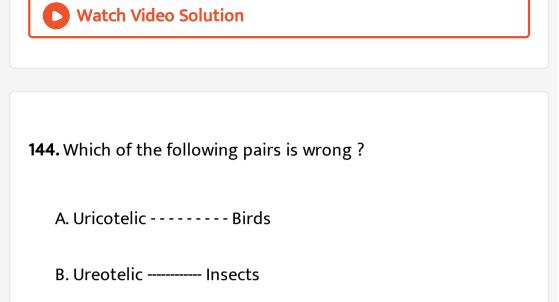
B. Mammals and frogs are ureotrlic animals

C. Aquatic amphibians and aquatic insects are ammonotelic

animals

D. Birds and reptiles are ureotelic

Answer: D



C. Ammonotelic - - - - - Tadpole

D. Ureotelic - - - - - Elephant

Answer: B

Watch Video Solution

145. Which one of the following statements is incorrect?

- A. The medullary zone of kidney is divided into a few conical
 - masses called medullary pyramids projecting into the calyces.
- B. Inside the kidney the cortical region extends in between

the medullary pyramids as renal pelvis.

C. Glomerulus alongwith Bowman's capsule is called the renal

corpuscle

D. Renal corpuscle, proximal convoluted tubule (PCT) and

distal convoluted tubule (DCT) of the nephron are situated

in the cortical region of kidney.

Answer: B



146. Dialysing unit (artificial kidney) contains a fluid which is almost same as plasma except that it has

A. High glucose

B. High urea

C. No urea

D. High uric acid

Answer: C

Watch Video Solution

147. Which one of the following four secretions is correctly matched with its source, target and nature of action?

	SECRETION	SOURCE	TARGET	ACTION
A	Gastrin	Stomach lining	Oxyntic cells	Produc- tion of HCI
В	Inhibin	Sertoli cells		Inhibition of secre- tion of gonadot- ropin re- leasing hormone.
C	Entero- kinase	Duode- num	Gall bladder	Release of bile juice.
D	Atrial Natriuretic Factor(ANF)	Sinu atrial node (SAN)	Juxtag- lom — erular apparate (JGA)	Inhibition of release of renin us

View Text Solution

148. Which one of the following statements is correct with respect to salt water balance inside the body of living organisms

A. When water is not available camels do not produce urine

but store urea in tissues.

- B. Salmon fish excretes lot of stored salt through gill membrane when in fresh water.
- C. Paramoecium discharges concentrated salt solution by

contractile vacuoles

D. The body fluids of fresh water animals are generally

hypotonic to surrounding water

Answer: A



149. Find out the correct statement about the loop of Henle

A. The descending limb is permeable to electrolytes

B. The descending limb is permeable to water

C. The ascending limb is permeable to water

D. The ascending limb is impermeable to electrolytes

Answer: B

Watch Video Solution

150. A terrestrial animal must be able to

A. actively pump salts out through the skin

B. excrete large amounts of salts in urine

C. excrete large amounts of water in urine

D. conserve water



151. In Ornithine cycle which one pair of the following wastes as

removed from the blood?

A. CO_2 and ammonia

B. Ammonia and urea

C. CO_2 and urea

D. Urea and urine

Answer: A

> Watch Video Solution

152. The net pressure gradient that causes the fluid to filter out

of the glomeruli into the capsule is

A. 20mm Hg

B. 50 mm Hg

C. 75mm Hg

D. 30mm Hg

Answer: A

Watch Video Solution

153. Earthworms are commonly

A. Ureotelic when plenty of water is available

B. Uricotelic when plenty of water is available

C. Uricotelic under conditions of water scarcity

D. Ammonotelic when plenty of water is available

Answer: D

Watch Video Solution

154. Angiotensinogen is a protein produced and secreted by

A. Macula densa cellls

B. Endothelial cells (cells lining the blood vessels)

C. Liver cells

D. Juxtaglomerular (JG) cells

Answer: C

Watch Video Solution

155. What will happen if the stretch receptors of the urinary bladder wall are totally removed ?

A. Urine will continue to collect normally in the bladder

B. There will be no micturition

C. Urine will not collect in the bladder

D. Micturition will continue

Answer: B

Watch Video Solution

156. Uric acid is the chief nitrogenous component of the excretory products of :

A. Cockroach

B. Frog

C. Man

D. Earthworm

Answer: A

Watch Video Solution

157. Which one of the following statements in regard to the excretion by the human kidneys is correct?

- A. Ascending limb of Loop of Henle is impermeable to electrolytes
- B. Descending limb of Loop of Henle is impermeable to water

C. Distal convoluted tubule is incapable to reabsorbing

 HCO_3^-

D. Nearly 99 per cent of the glomerular filtrate is reabsorbed

by the renal tubules

Answer: D

Watch Video Solution

158. The principal nitrogenous exretory compound in humans is syntheised

A. in the liver, but eliminated mostly through kidneys

B. in kidneys but eliminated mostly through liver

C. in kidneys as well as eliminated bu kidneys

D. in liver and also eliminated by the same through bile

Watch Video Solution

159. Consider the following four statements (i-iv) regarding kidney transplant and select the two correct ones out of these
(i) Even if a kidney transplant is proper the recipient may need to take immuno-suppressants for a long time
(ii) The cell-mediated immune response is responsible for the graft rejection
(iii) The B-lumphocytes are responsible for rejection of the graft
(iv) The acceptance or rejection of a kidney transplant depends on specific interferons

The correct statements are

A. (i) and (ii)

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (ii)

Answer: A



160. Which one of the following is not a part of a renal pyramid

A. Peritubular capillaries

B. Convoluted tubules

C. Collecting ducts

D. Loop of Henle

Answer: B

161. Which one of the following is a correct pair showing the function of a specific part of the human nephron?

A. Podocytes : Create minute spaces (slit pores) for the

filtration of blood into the Bowman's capsule.

B. Henle's loop : most reabsorption of the major substances

from the glomerular filtrate

C. Distal convoluted tubule : reabsorption of K^+ ions thto

the surrounding blood capillaries

D. Afferent arteriole : carries the blood away from the glomerulus towards renal vein



162. Which one of the following statement is correct respect to kidney function regulation

- A. When someone drinks lot of water, ADH release is suppressed.
- B. Exposure to cold temperature stimulates ADH release
- C. An increase in glomerular blood flow stimulate formation

of Angiotensin II

D. During summer when body loses lot of water by

evaporation, the release of ADH is suppressed

Answer: A

163. The maximum amount of electrolytes and water (70-80 per cent) from the glomerular filtrate is reabsorbed in which part of the nephron?

A. Distal convoluted tubule

B. Proximal convoluted tubule

C. Descending limb of loop of Henle

D. Ascending limb of loop of Henle

Answer: B



164. Which one of the following characteristics is common both

in human and adult frogs?

A. Nucleated RBCs

- B. Ureotelic mode of excretion
- C. Four-chambered heart
- D. Internal fertilisation

Answer: B



165. A fall in glomerular filtration rate (GFR) activates

A. Adrenal medulla to release adrenaline

B. Posterior pituitary to release vasopressin

C. Juxta glomerular cells to release renin

D. Adrenal cortex to release aldosterone

Answer: C

Watch Video Solution

166. Kidneys perform all the functions except

A. filtration of blood

B. regulation of B.P.

C. secretions of antibodies

D. regulation of pH in body fluid

Answer: C



167. A healthy adult human excretes out (on the average) how

many grams of urea per day?

A. 25 - 30 g

B. 40 - 50 g

C. 10 - 15 g

D. None of the above

Answer: A

Watch Video Solution

168. Dialysis fluid contains all the constituents as in plasma except

A. Electrolytes

B. Proteins

C. Nitrogenous wastes

D. All the above

Answer: C

Watch Video Solution

169. The Juxta glomerular cells of kidney produce a peptide hormone called

A. Gastrin

B. Secretin

C. Erythropoietin

D. Estradiol

Answer: C

Watch Video Solution

170. Erythropoietin stimulates

A. Osmoregulation

B. Formation of RBC

C. Reduces blood pressure

D. Gastric inhibitory peptide

Answer: B



171. STATEMENT-1 : 1M H_2SO_4 is also 1 N.

STATEMENT-2 : Water glycol mixture is used in car radiators in winter because its freezing point is less than $0^{\circ}C$ STATEMENT-3 : A saturated solution will remain saturated at all

temperatures.

A. NH_3 and CO_2 are present in liver only

B. hormone ADH is found in liver only

C. enzyme arginase is present in liver only

D. kidney is smaller than liver

Answer: C



172. The substance present in higher concentration in blood

than glomerular filtrate

A. Plasma proteins

B. Urea

C. Water

D. Glucose

Answer: A



173. A large quantity of fluid is filtered everyday by nephrons in the kidneys but only about 1% of it excreted as urine. The remaining 99% of the filtrate A. gets collected in the renal pelvis

B. is lost as sweat

C. is absorbed into the blood

D. is stored in the urinary bladder

Answer: C



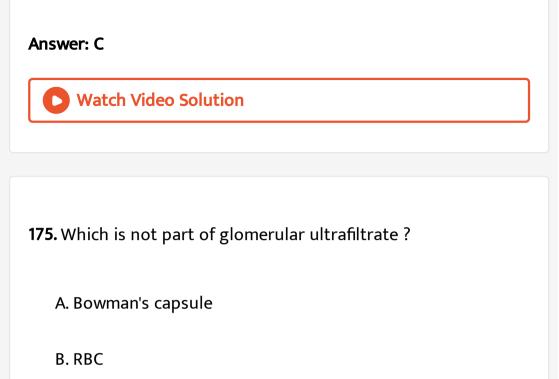
174. Vasa recta and network of blood capillaries occur in association with

A. Digestive system

B. Liver lobule

C. Renal tubules

D. Skin



C. Amino acids

D. Minerals

Answer: B



176. Choose the animals which are not ureotelic ?

A. Tadpole

B. Crab

C. Labeo

D. All of these

Answer: D

Watch Video Solution

177. ADH deficiency shows the following condition

A. only polydipsia

B. polyuria

C. polydipsia and polyuria

D. glycosuria

Answer: C Watch Video Solution

178. Glucose and amino acids are reabsorbed in

A. proximal tubule

B. distal tubule

C. collecting duct

D. loop of Henle

Answer: A



179. Functional unit of Kidney is

A. neuron

B. axon

C. glomerulus

D. nephron

Answer: D

Watch Video Solution

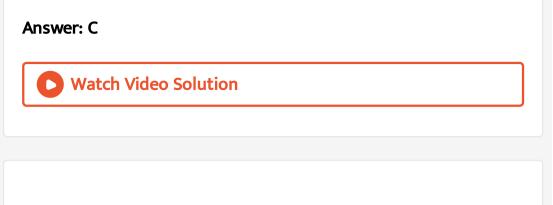
180. Which of the following glands does not help in excretion

A. Liver

B. Sweat glands

C. Pancreas

D. Both (1) and (3)



181. Which of the following is excreted in human urine?

A. Ammonia

B. Urea

C. uric acid

D. amino acid

Answer: B



182. A fall in glomerular filtration rate (GFR) activates

A. Juxta glomerular cells to release renin

B. Adrenal cortex to release aldosterone

C. Adrenal medulla to release adrenaline

D. Posterior pituitary to release vasopressin

Answer: A

Watch Video Solution

183. Loop of Henle is found in

A. lung

B. liver

C. neuron

D. nephron

Answer: D

Watch Video Solution

184. Which of the following causes an increase in sodium reabsorption in the distal convoluted tubule

A. Decrease in antidiuretic hormone levels

B. Increase in aldosterone levels

C. Increase in antidiuretic hormone levels

D. Decrease in aldosterone levels

Answer: B

> Watch Video Solution

185. Which of the following does not favour the formation of

large quantities of dilute urine

A. Caffeine

B. Renin

C. Atrial-natriuretic factor

D. Alcohol

Answer: B



186. Removal of proximal convoluted tubule from the nephron

will be result in

A. more concentrated urine

B. no change in qualit and quantity of urine

- C. no urine formation
- D. more diluted urine

Answer: D



187. Human urine is usually acidic because

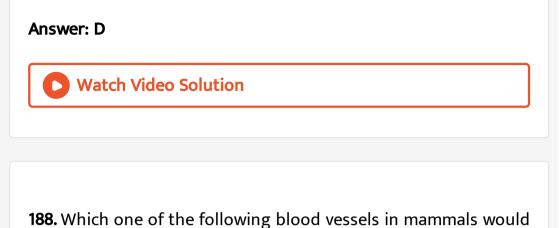
A. the sodium transporter exchanges one hydrogen ion for

each sodium ion, in peritbular capillaries.

B. excreted plasma proteins are acidic.

C. potassium and sodium exchange generates acidity.

D. hydrogen ions are actively secreted into the filtrate



normally carry the largest amount of urea

A. Dorsal Aorta

B. Hepatic Vein

C. Hepatic Portal Vein

D. Renal Vein

Answer: B

Watch Video Solution

189. The part of nephron involved in active reabsorption of sodium is

A. Distal convoluted tubule

B. Proximal convoluted tubule

C. Bowman's capsule

D. Descending limb of Henle's loop

Answer: A



190. Which of the following statements is correct?

A. The ascending limb of loop of Henle is impermeable to

water.

B. The descending limb of loop of Henle is impermeable to

water.

- C. The ascending limb of loop of Henle is permeable to water.
- D. The descending limb of loop of Henle is permeable to

electrolytes

Answer: A

Watch Video Solution

191. A decrease in blood pressure / volume will not cause the

release of

A. Renin

B. Atrial Natriuretic Factor

C. Aldosterone

D. ADH

Answer: B

