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NEET EXCRETORY PRODUCTS AND THEIR ELIMINATION — PYQS

Max. Marks: 212 **Questions:** 53

Section A (MCQ) — 53 questions

Q.1 Arrange the following events occurring in Renin-Angiotensin mechanism in the correct order :

A. Increase in blood pressure and Glomerular filtration rate.

B. Reabsorption of Na^+ and water from distal parts of tubule due to Aldosterone.

C. Fall in Glomerular filtration rate.

D. Vasoconstriction by Angiotensin II and release of Aldosterone.

E. Renin converts Angiotensinogen into Angiotensin I, followed by Angiotensin II.

Choose the correct answer from the options given below : [NEET (UG) 2026]

(1) A, C, E, B, D (2) C, A, B, D, E

(3) A, D, B, E, C (4) C, E, D, B, A

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Q.2 The JGA (Juxta Glomerular Apparatus) is a special sensitive region formed by cellular modifications in _____ related to the same nephron. [NEET (UG) 2026]

(1) Proximal convoluted tubule and efferent renal arteriole

(2) Distal convoluted tubule and efferent renal arteriole

(3) Distal convoluted tubule and afferent renal arteriole

(4) Proximal convoluted tubule and afferent renal arteriole

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Q.3 Which of the following statements about the reabsorption process in Henle's loop are correct?

A. The descending limb of Henle's loop is permeable to water but almost impermeable to electrolytes.

B. Urine gets concentrated in Henle's loop.

C. Reabsorption of Na^+ and water takes place in Henle's loop.

D. Active or passive transport of electrolytes occurs in the ascending limb of Henle's loop.

[RE-NEET (UG) 2026]

(1) A, B and D only (2) A and B only

(3) B, C and D only (4) A, B and C only

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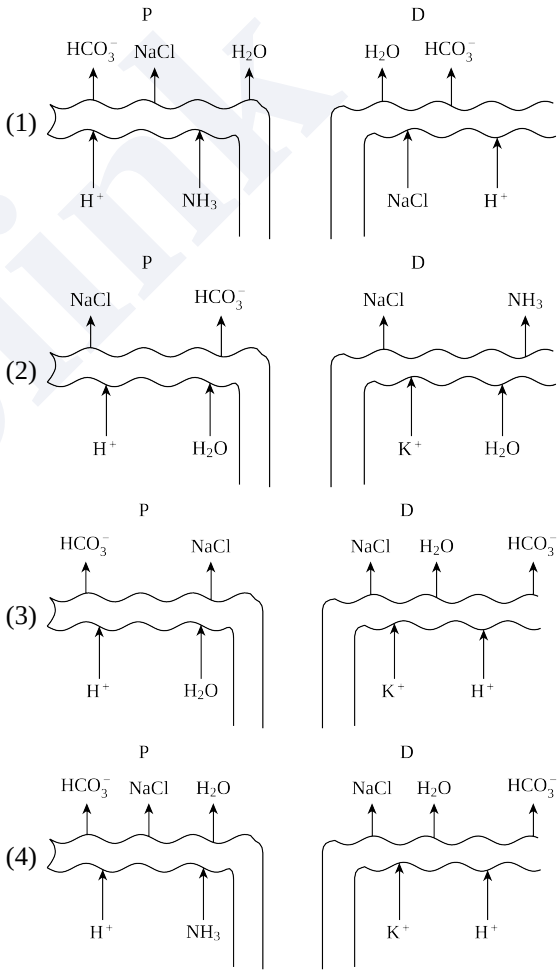
Q.4 Which of the following diagrams is correct with regard to the proximal (P) and distal (D) tubule of the Nephron. [NEET (UG) 2025]



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Q.5 Given below are two statements :

Statement-I: In the nephron, the descending limb of loop of Henle is impermeable to water and permeable to electrolytes.

Statement-II: The proximal convoluted tubule is lined by simple columnar brush border epithelium and increases the surface area for reabsorption.

In the light of the above statements, choose the correct answer from the options given below : [NEET (UG) 2024]

(1) Both Statement-I and Statement-II are true
(2) Both Statement-I and Statement-II are false
(3) Statement-I is true but Statement-II is false
(4) Statement-I is false but Statement-II is true

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Q.6 Choose the correct statement given below regarding juxta medullary nephron. [NEET (UG) 2024]
(1) Juxta medullary nephrons are located in the columns of Bertini.
(2) Renal corpuscle of juxta medullary nephron lies in the outer portion of the renal medulla.
(3) Loop of Henle of juxta medullary nephron runs deep into medulla.
(4) Juxta medullary nephrons outnumber the cortical nephrons.

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Q.7 Diuresis is prevented by: [RE-NEET (UG) 2024]
(1) Renin from JG cell via switching off the osmoreceptors
(2) ANF from atria of the heart
(3) Aldosterone from adrenal medulla
(4) Vasopressin from Neurohypophysis

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Q.8 Given below are two statements:
Statement-I: Concentrated urine is formed due to counter current mechanism in nephron.
Statement-II: Counter current mechanism helps to maintain osmotic gradient in the medullary interstitium.

In the light of the above statements, choose the most appropriate answer from the options given below. [RE-NEET (UG) 2024]
(1) Statement-I is correct but Statement-II is incorrect.
(2) Statement-I is incorrect but Statement-II is correct.
(3) Both Statement-I and Statement-II are correct.
(4) Both Statement-I and Statement-II are incorrect.

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Q.9 Given below are two statements: one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.
Assertion (A): Nephrons are of two types: Cortical & Juxta medullary, based on their relative position in cortex and medulla.
Reason (R): Juxta medullary nephrons have short loop of Henle whereas, cortical nephrons have longer loop of Henle.

In the light of the above statements, choose the correct answer from the options given below: [NEET (UG) 2023]
(1) Both A and R are true but R is NOT the correct explanation of A.
(2) A is true but R is false.
(3) A is false but R is true.
(4) Both A and R are true and R is the correct explanation of A.

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Q.10 Match **List I** with **List II**.

List I		List II	
A.	*Taenia*	I.	Nephridia
B.	*Paramoecium*	II.	Contractile vacuole
C.	*Periplaneta*	III.	Flame cells
D.	*Pheretima*	IV.	Uricose gland

Choose the correct answer from the options given below : [NEET (UG) 2023]
(1) A-I, B-II, C-IV, D-III
(2) A-III, B-II, C-IV, D-I
(3) A-II, B-I, C-IV, D-III
(4) A-I, B-II, C-III, D-IV

Solution

Q.11 Which of the following statements are correct?
A. An excessive loss of body fluid from the body switches off osmoreceptors.
B. ADH facilitates water reabsorption to prevent diuresis.
C. ANF causes vasodilation.
D. ADH causes increase in blood pressure.
E. ADH is responsible for decrease in GFR.
Choose the correct answer from the options given below: [NEET (UG) 2023]
(1) B, C and D only (2) A, B and E only
(3) C, D and E only (4) A and B only

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Q.12 Nitrogenous waste is excreted in the form of pellet or paste by : [NEET (UG) 2022]
(1) *Ornithorhynchus* (2) *Salamandra*
(3) *Hippocampus* (4) *Pavo*

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Q.13 Select the correct statements.
Choose the most appropriate answer from the options given below :
A. Angiotensin II activates the cortex of adrenal gland to release aldosterone.
B. Aldosterone leads to increase in blood pressure.
C. ANF acts as a check on renin-angiotensin mechanism.

D. ADH causes vasodilation.
E. Vasopressin is released from adenohypophysis.

[NEET (UG) 2022 (Phase 2)]

(1) A, B and C only (2) A, B and E only
(3) C, D and E only (4) B, C and D only

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Q.14 Presence of which of the following conditions in urine are indicative of Diabetes Mellitus? [NEET (UG) 2020]

(1) Ketonuria and Glycosuria
(2) Uremia and Renal Calculi
(3) Uremia and Ketonuria
(4) Renal calculi and Hyperglycaemia

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Q.15 Which of the following would help in prevention of diuresis? [NEET (UG) 2020]

(1) Decrease in secretion of renin by JG cells
(2) More water reabsorption due to undersecretion of ADH
(3) Reabsorption of Na^+ and water from renal tubules due to aldosterone
(4) Atrial natriuretic factor causes vasoconstriction

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Q.16 Which of the following factors is responsible for the formation of concentrated urine? [NEET (UG) 2019]

(1) Secretion of erythropoietin by Juxtaglomerular complex.
(2) Hydrostatic pressure during glomerular filtration.
(3) Low levels of antidiuretic hormone.
(4) Maintaining hyperosmolarity towards inner medullary interstitium in the kidneys.

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Q.17 Use of an artificial kidney during hemodialysis may result in :
Which of the following options is the most **appropriate**?

A. Nitrogenous waste build-up in the body
B. Non-elimination of excess potassium ions
C. Reduced absorption of calcium ions from gastro-intestinal tract
D. Reduced RBC production [NEET (UG) 2019]

(1) C and D only (2) A and D only
(3) A and B only (4) B and C only

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Q.18 Match the items given in **column I** with those in **column II** and select the correct option given below. [NEET 2018]

Column I		Column II	
a.	Glycosuria	i.	Accumulation of uric acid in joints
b.	Gout	ii.	Mass of crystallised salts within the kidney
c.	Renal calculi	iii.	Inflammation in glomeruli
d.	Glomerular nephritis	iv.	Presence of glucose in urine

(1) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
(2) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
(3) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
(4) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)

Solution

Q.19 Match the items given in **column I** with those in **column II** and select the correct option given below. [NEET 2018]

Column I (Function)		Column II (Part of excretory system)	
a.	Ultrafiltration	i.	Henle's loop
b.	Concentration of urine	ii.	Ureter
c.	Transport of urine	iii.	Urinary bladder
d.	Storage of urine	iv.	Malpighian corpuscle
		v.	Proximal convoluted tubule

(1) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
(2) (a)-(iv), (b)-(v), (c)-(ii), (d)-(iii)
(3) (a)-(v), (b)-(iv), (c)-(i), (d)-(iii)
(4) (a)-(v), (b)-(iv), (c)-(i), (d)-(ii)

Solution

Q.20 A decrease in blood pressure/volume will not cause the release of [NEET 2017]

(1) atrial natriuretic factor
(2) aldosterone
(3) ADH
(4) renin

Solution

Q.21 Which of the following statements is correct? [NEET 2017]

(1) The descending limb of loop of Henle is impermeable to water
(2) The ascending limb of loop of Henle is permeable to water.

(3) The descending limb of loop of Henle is permeable to electrolytes.

(4) The ascending limb of loop of Henle is impermeable to water.

Scan or tap for the full solution

Q.22 In mammals, which blood vessel would normally carry largest amount of urea? [NEET 2016 (Phase 1)]

(1) Hepatic Vein (2) Hepatic Portal Vein

(3) Renal Vein (4) Dorsal Aorta

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Q.23 The part of nephron involved in active reabsorption of sodium is [NEET 2016 (Phase 2)]

(1) distal convoluted tubule

(2) proximal convoluted tubule

(3) Bowman's capsule

(4) descending limb of Henle's loop

Solution

Q.24 Human urine is usually acidic because [AIPMT 2015]

(1) potassium and sodium exchange generates acidity

(2) hydrogen ions are actively secreted into the filtrate

(3) the sodium transporter exchanges one hydrogen ion for each sodium ion, in peritubular capillaries.

(4) excreted plasma proteins are acidic

Scan or tap for the full solution

Q.25 The body cells in cockroach discharge their nitrogenous waste in the haemolymph mainly in the form of - [AIPMT 2015]

(1) Urea (2) Potassium urate

(3) Calcium carbonate (4) Ammonia

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Q.26 Which of the following does not favour the formation of large quantities of dilute urine? [AIPMT 2015 (Cancelled)]

(1) Renin

(2) Atrial natriuretic factor

(3) Alcohol

(4) Caffeine

Solution

Q.27 Removal of proximal convoluted tubule from the nephron will result in [AIPMT 2015 (Cancelled)]

(1) no change in quality and quantity of urine

(2) no urine formation

(3) more diluted urine

(4) more concentrated urine.

Solution

Q.28 Which of the following causes an increase in sodium reabsorption in the distal convoluted tubule? [AIPMT 2014]

(1) Increase in aldosterone levels

(2) Increase in antidiuretic hormone levels

(3) Decrease in aldosterone levels

(4) Decrease in antidiuretic hormone levels

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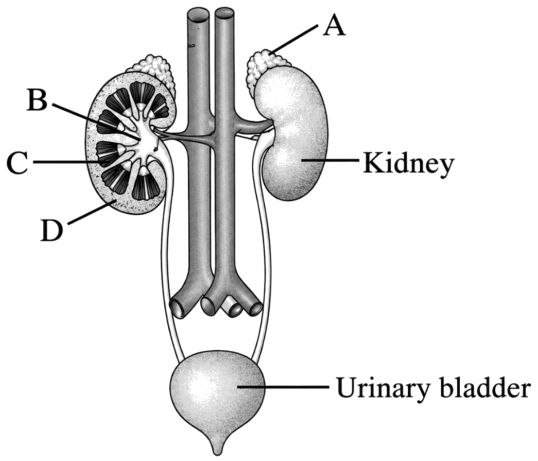
Q.29 Figure shows human urinary system with structures labelled A to D. Select option which correctly identifies them and gives their characteristic and/or functions. [NEET 2013]



(1) A - Adrenal gland - located at the anterior part of kidney. Secrete catecholamines which stimulate glycogen breakdown.

(2) C - Medulla - inner zone of kidney and contains complete nephrons.

(3) B - Pelvis - broad funnel shaped space inner to hilum, directly connected to loops of Henle.

(4) D - Cortex - outer part of kidney and do not contain any part of nephrons.

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Q.30 Select the option which shows correct matching of animal with its excretory organ and excretory product. [NEET 2013 (Karnataka)]

(1)

Animal	Excretory organ	Excretory product
Labeo (Rohu)	Nephridial tubes	Ammonia

(2)

Animal	Excretory organ	Excretory product
Salamander	Kidneys	Urea

(3)

Animal	Excretory organ	Excretory product
Peacock	Kidneys	Urea

(4)

Animal	Excretory organ	Excretory product
Housefly	Renal tubules	Uric acid

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Q.31 Which one of the following options gives the correct categorization of six animals according to the type of nitrogenous waste they give out?

[AIPMT 2012 (Mains)]

(1)

Ammonotelic	Ureotelic	Uricotelic
Pigeon, humans	Aquatic amphibia, lizards	Cockroach, frog

(2)

Ammonotelic	Ureotelic	Uricotelic
Frog, lizards	Aquatic amphibia, humans	Cockroach, pigeon

(3)

Ammonotelic	Ureotelic	Uricotelic
Aquatic amphibia	Frog, humans	Pigeon, lizards, cockroach

(4)

Ammonotelic	Ureotelic	Uricotelic
Aquatic amphibia	Cockroach, humans	Frog, pigeon, lizards

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Q.32 A fall in glomerular filtration rate (GFR) activates

[AIPMT 2012 (Mains)]

(1) juxtaglomerular cells to release renin

(2) adrenal cortex to release aldosterone

(3) adrenal medulla to release adrenaline

(4) posterior pituitary to release vasopressin.

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Q.33 The maximum amount of electrolytes and water (70 – 80 percent) from the glomerular filtrate is reabsorbed in which part of the nephron?

[AIPMT 2012 (Prelims)]

(1) Ascending limb of loop of Henle

(2) Distal convoluted tubule

(3) Proximal convoluted tubule

(4) Descending limb of loop of Henle

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Q.34 Uricotelic mode of excreting nitrogenous wastes is found in [AIPMT 2011 (Mains)]

(1) reptiles and birds

(2) birds and annelids

(3) amphibians and reptiles

(4) insects and amphibians.

Solution

Q.35 Which one of the following is not a part of a renal pyramid? [AIPMT 2011 (Prelims)]

(1) Peritubular capillaries

(2) Convoluted tubules

(3) Collecting ducts

(4) Loop of Henle

Solution

Q.36 Which one of the following correctly explains the function of a specific part of the human nephron?

[AIPMT 2011 (Prelims)]

(1) Podocytes : create minute spaces (slit pores) for the filtration of blood into the Bowman's capsule

(2) Henle's loop : most reabsorption of the major substances from the glomerular filtrate

(3) Distal convoluted tubule : reabsorption of K^+ ions into the surrounding blood capillaries

(4) Afferent arteriole : carries the blood away from the glomerulus towards renal vein.

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Q.37 Which one of the following statements is correct with respect to kidney function regulation?

[AIPMT 2011 (Prelims)]

(1) When someone drinks a lot of water, ADH release is suppressed.

(2) Exposure to cold temperature stimulates ADH release.

(3) An increase in glomerular blood flow stimulates formation of angiotensin II.

(4) During summer when body loses a lot of water by evaporation, the release of ADH is suppressed.

Scan or tap for the full solution

Q.38 In which one of the following organisms its excretory organs are correctly stated?

[AIPMT 2010 (Mains)]

(1) Humans :- Kidneys, sebaceous glands and tear glands

(2) Earthworm :- Pharyngeal, integumentary and septal nephridia

(3) Cockroach :- Malpighian tubules and enteric caeca

(4) Frog :- Kidneys, skin and buccal epithelium

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Q.39 Which one of the following statements in regard to the excretion by the human kidneys is correct?

[AIPMT 2010 (Prelims)]

(1) Descending limb of loop of Henle is impermeable to water.

(2) Distal convoluted tubule is incapable of reabsorbing HCO_3^-.

(3) Nearly 99 per cent of the glomerular filtrate is reabsorbed by the renal tubules.

(4) Ascending limb of loop of Henle is impermeable to electrolytes.

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Q.40 The principal nitrogenous excretory compound in humans is synthesised [AIPMT 2010 (Prelims)]

(1) in kidneys but eliminated mostly through liver
(2) in kidneys as well as eliminated by kidneys
(3) in liver and also eliminated by the same through bile
(4) in the liver, but eliminated mostly through kidneys

Scan or tap for the full solution

Q.41 What will happen if the stretch receptors of the urinary bladder wall are totally removed? [AIPMT 2009]
(1) Micturition will continue
(2) Urine will continue to collect normally in the bladder
(3) There will be no micturition
(4) Urine will not collect in the bladder

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Q.42 Uric acid is the chief nitrogenous component of the excretory products of [AIPMT 2009]
(1) earthworm (2) cockroach
(3) frog (4) man.

Scan or tap for the full solution

Q.43 A person who is on a long hunger strike and is surviving only on water, will have [AIPMT 2007]
(1) less amino acids in his urine
(2) more glucose in his blood
(3) less urea in his urine
(4) more sodium in his urine

Solution

Q.44 Angiotensinogen is a protein produced and secreted by [AIPMT 2006]
(1) juxtaglomerular (JG) cells
(2) macula densa cells
(3) endothelial cells (cells lining the blood vessels)
(4) liver cells.

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Q.45 Earthworms are - [AIPMT 2006]
(1) Uricotelic when plenty of water is available
(2) Ammonotelic when plenty of water is available
(3) Ureotelic when plenty of water is available
(4) Uricotelic under conditions of water scarcity

Scan or tap for the full solution

Q.46 In ornithine cycle, which of the following wastes are removed from the blood? [AIPMT 2005]
(1) CO_2 and urea (2) Ammonia and urea
(3) CO_2 and ammonia (4) Urea and urine

Scan or tap for the full solution

Q.47 The net pressure gradient that causes the fluid to filter out of the glomeruli into the capsule is [AIPMT 2005]
(1) 50 mm Hg (2) 75 mm Hg
(3) 20 mm Hg (4) 30 mm Hg

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Q.48 A person is undergoing prolonged fasting. His urine will be found to contain abnormal quantities of [AIPMT 2005]
(1) fats (2) amino acids
(3) glucose (4) ketones.

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Q.49 Uricotelism is found in [AIPMT 2004]
(1) mammals and birds
(2) fish and fresh water protozoans
(3) birds, land reptiles and insects
(4) frogs and toads

Solution

Q.50 If Henle's loop were absent from mammalian nephron, which one of the following is to be expected? [AIPMT 2003]
(1) There will be no urine formation.
(2) There will be hardly any change in the quality and quantity of urine formed.
(3) The urine will be more concentrated.
(4) The urine will be more dilute.

Scan or tap for the full solution

Q.51 Conversion of ammonia to urea is done by [AIPMT 2000]
(1) ornithine cycle (2) arginine cycle
(3) fumaric cycle (4) citrulline cycle

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Q.52 Concentration of urine depends upon which organ? [AIPMT 2000]
(1) Bowman's capsule
(2) Length of Henle's loop
(3) PCT
(4) Network of capillaries arising from glomerulus

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Q.53 Which pair is correct? [AIPMT 2000]

(1) Sebum = sexual attraction

(2) Saliva = sense of food taste

(3) Sweat = temperature regulation

(4) Humerus = Hind leg

Solution

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	**4**	**3**	**1**	**4**	**2**	**3**	**4**	**3**	**2**	**2**	**1**
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	**4**	**1**	**1**	**3**	**4**	**1**	**1**	**1**	**1**	**4**	**1**
Ques.	23	24	25	26	27	28	29	30	31	32	33
Ans.	**2**	**2**	**2**	**1**	**3**	**1**	**1**	**2**	**3**	**1**	**3**
Ques.	34	35	36	37	38	39	40	41	42	43	44
Ans.	**1**	**2**	**1**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Ques.	45	46	47	48	49	50	51	52	53		
Ans.	**2**	**3**	**3**	**4**	**3**	**4**	**1**	**2**	**3**		

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