

THE BRIGADE SCHOOL

Total points **27/40** ?

CLASS: 10
MAX MARKS: 40

UNIT TEST 2

SUBJECT: BIOLOGY
DURATION: 30 mins

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INSTRUCTIONS:

0 of 0 points

1. Fill in your valid email id and select your name correctly.
2. Select your school and section correctly.
3. Attempt all the questions.
4. Ensure that you have completed and revised your paper before submission.
5. You can attempt your paper only once

Name : *

Manan Y Mehta

School : *

TBSG

Class *

10 A

Answer the following

27 of 40 points



✓ 1. Name the following: Organ where urea is synthesized in the body. * 1/1

☐ kidneys

☒ liver ✓

☐ spleen

✓ 2. In a _____A_____ the solution outside the cell has higher solute concentration than the fluids inside the cell. Therefore, water flows out from the plant cell due to _____B_____ The cytoplasm shrinks and the plasma membrane withdraws away from the cell wall and this the cell becomes _____C_____. *

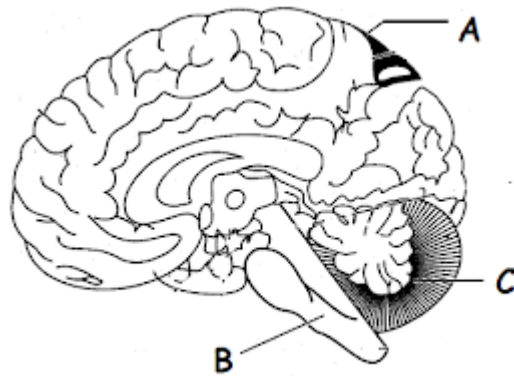
☐ A- hypotonic solution B- exosmosis C- turgid

☒ A- hypertonic solution B- exosmosis C- flaccid ✓

☐ A- hypertonic solution B- endosmosis C- flaccid



- ✓ 3. Associate the labelled part of the human brain in the diagram given below with their respective functions * 1/1



- ☒ A- seat of memory B- controls activities of internal organs C- coordinates muscle activity ✓
- ☐ A- coordinates muscle activity B- controls activities of internal organs C- seat of memory
- ☐ A- seat of intelligence B- regulates body temperature C- coordinates muscle activity

- ✓ 4. Pick the logical sequence from the following with respect to absorption of water by the roots : * 1/1

- ☐ Xylem, Epidermis, Cortex, Endodermis, Root hair
- ☐ Root hair, Cortex, Endodermis, Epidermis, Xylem
- ☒ Root hair, Epidermis, Cortex, Endodermis, Xylem ✓

- ✓ 5. Which of the following statements is true? * 1/1

- ☐ nerve is a bundle of cytons of separate neurons enclosed within a tubular sheath
- ☒ conduction of neve impulse is a wave of depolarization followed by repolarization ✓
- ☐ receptors are muscles or glands that contract or secrete on receiving signal from the brain

✓ 6. a) Identify the structure in the diagram given below : *

1/1



☒ malphigian capsule



☐ Bowman's capsule

☐ uriniferous capsule

✓ 6. b) The afferent arteriole is wider than the efferent arteriole in the above diagram 6(a). This characteristic feature is the reason for : *

1/1

☐ reduced tubular reabsorption

☐ less blood entering and more blood moving out of the glomerulus

☒ the high hydrostatic pressure in the glomerulus



✗ 6. c) What is the technical term given to the process occurring in the structure mentioned in 6(a) ? *

0/1

☒ tubular reabsorption

✗

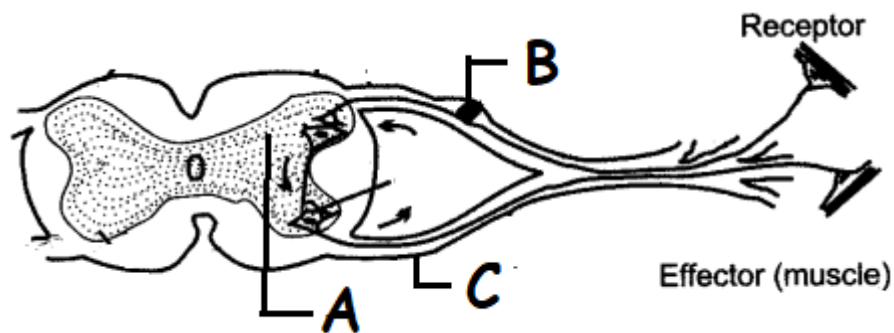
☐ ultrafiltration

☐ tubular secretion

Correct answer

☒ ultrafiltration

✓ 7. The diagram given below represents the section of the spinal cord of a mammal, pick the correct labelling for A,B and C. *



☐ A- White matter B- Dorsal ganglion C- Ventral root

☐ A- Gray matter B- Dorsal ganglion C- Dorsal root

☒ A- Gray matter B- Dorsal ganglion C- Ventral root

✓

✗ 8. The pressure developed due to inward movement of water through cell-cell osmosis within root cells is : * 0/1

☒ turgor pressure ✗

☐ wall pressure

☐ root pressure

Correct answer

☒ root pressure

✓ 9. What is meant by power of accommodation of the eye? * 1/1

☒ The process of adjusting the focal length of the lens according to the near or distant objects. ✓

☐ The capacity to perceive a three-dimensional image due to simultaneous focusing of both eyes on an object

☐ The flexibility of the lens declines, and the lens becomes less convex or opaque leading to weakness of eyesight

✓ 10. Pick the logical sequence from the following based on reflex arc : * 1/1

☐ receptor, stimulus, sensory neuron, motor neuron, CNS

☒ stimulus, receptor, sensory neuron, CNS, motor neuron ✓

☐ stimulus, receptor, CNS, sensory neuron, motor neuron

✓ 11. Pick the odd one out : *

1/1

- ☐ proximal convoluted tubule
- ☐ henle's loop
- ☒ corpus callosum
- ☐ glomerulus



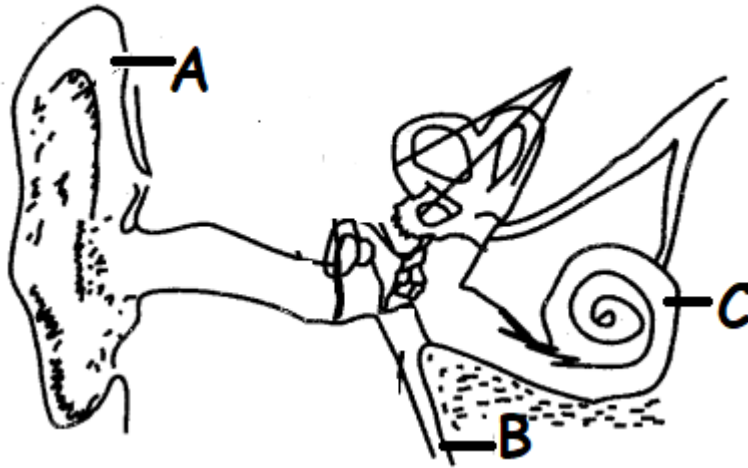
✓ 12. The phenomenon by which living or dead plant cells absorb water by surface attraction is called *

1/1

- ☐ girdling
- ☐ guttation
- ☒ imbibition



- ✓ 13. Given below is the diagram of the human ear. Name the part labelled 'B' and state its function. *



- ☐ Ear ossicles receive, magnify and transmit the sound vibrations
- ☒ Eustachian tube, equalizes the air pressure on either side of ear drum allowing it to vibrate freely. ✓
- ☐ Auditory nerve, transmits impulses to the brain

- ✗ 14. Pick the odd one out based on the type of reflex action : *

0/1

- ☒ sneezing ✗
- ☐ blushing
- ☐ playing on the Keyboard
- ☐ constriction of pupil

Correct answer

- ☒ playing on the Keyboard

✓ 15. Leaves of the sensitive plant wilt and droop down on a slight touch. 1/1
What mechanism brings about this change? *

☒ turgor movement ✓

☐ transpiration pull

☐ exudation

✗ 16. Which among the following is not a true statement ? * 0/1

☐ Urine is yellow in colour due to the presence of a pigment urochrome, formed due to breakdown of haemoglobin of old R.B.Cs.

☒ Urine is formed from alkaline blood, but it is acidic in nature ✗

☐ The urine is slightly thicker in winter than in summer

Correct answer

☒ The urine is slightly thicker in winter than in summer

✗ 17. Which among the following is not an example for plasmolysis in practice? * 0/1

☐ salting of meat to kill bacteria

☒ killing of weeds in a playground by sprinkling excess salt ✗

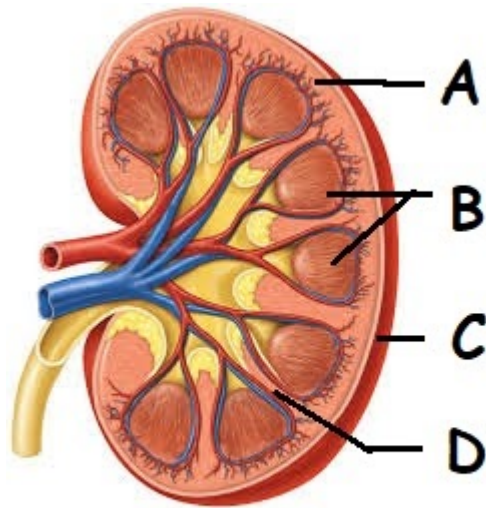
☐ roots of trees crack the walls of an adjoining building

Correct answer

☒ roots of trees crack the walls of an adjoining building

- ✓ 18. a) In the given diagram the region labelled A shows a dotted appearance in the sectional view as : *

1/1



- ☒ the Bowman's capsule and proximal convoluted tubules lie in this region ✓
- ☐ the loop of Henle is distributed in this region
- ☐ the blood vessels arise from this region

- ✗ 18. b) Identify the correct label for the diagram in Q.18(a) : *

0/1

- ☐ A- renal medulla B-renal pyramids C-renal cortex D- renal column
- ☒ A- renal capsule B-renal pyramids C-renal cortex D- renal pelvis ✗
- ☐ A- renal cortex B-renal pyramids C-renal capsule D- renal column

Correct answer

- ☒ A- renal cortex B-renal pyramids C-renal capsule D- renal column

✗ 18. c) A part of the kidney that is rich in urea is : *

0/1

☐ renal artery

☐ renal vein

☒ renal pyramid



Correct answer

☒ renal artery

✓ 19. Which of the following is an action of the parasympathetic system ? * 1/1

☐ blood vessels dilated

☐ dryness of mouth

☒ retards heart beat



✓ 20. Pick the correct arrangement of the following terms in a logical sequence on the basis of parts of the urinary system from first to last through which blood gets filtered and urine is excreted. *

1/1

☒ Renal artery, kidney, ureter, urinary bladder, urethra

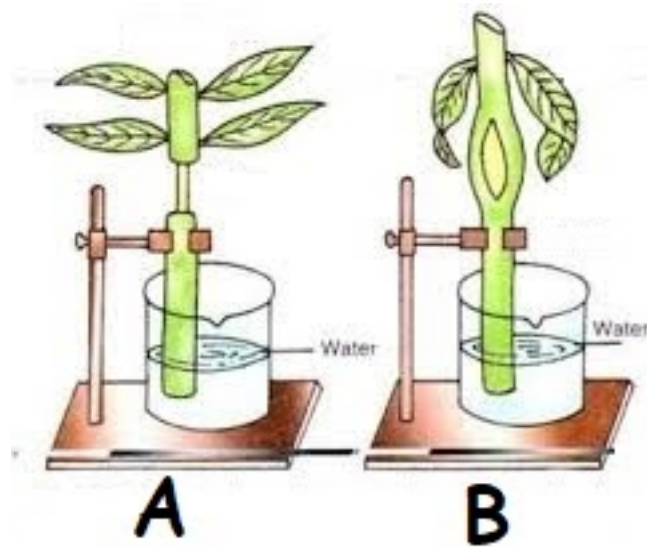


☐ Renal vein, kidney, urethra, urinary bladder, ureter

☐ Renal artery, kidney, urethra, urinary bladder, ureter



✗ 21. Which among the following is not an appropriate reasoning for the end result of the experiment given below? * 0/1



- ☐ leaves in the second twig B wilts and droops down due to incised xylem
- ☒ leaves in the first twig A remain turgid and stand out normal due to intact xylem ✗
- ☐ leaves in the second twig B wilts due to incised phloem and intact xylem

Correct answer

- ☒ leaves in the second twig B wilts due to incised phloem and intact xylem

✗ 22. State whether True or False: Deafness is caused due to rupture of ear pinna. * 0/1

- ☒ True ✗
- ☐ False

Correct answer

- ☒ False

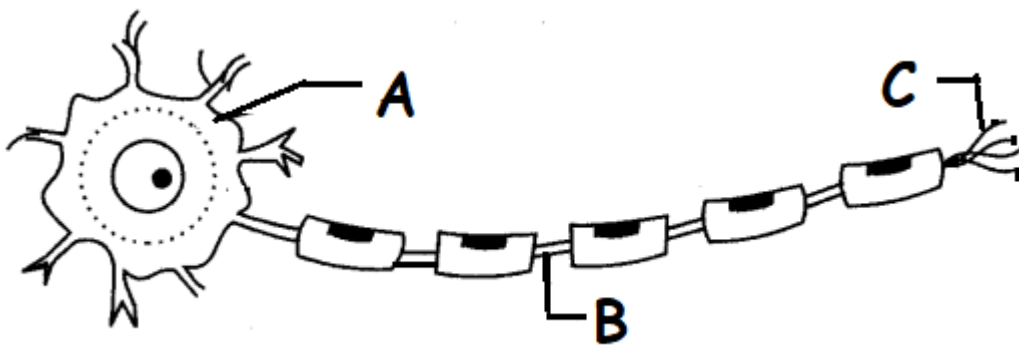
✓ 23. The substance found in excess in the urine of a diabetic patient is : * 1/1

☐ uric acid

☒ glucose ✓

☐ urea

✓ 24. Pick the correct labels for the diagram of the neuron given below : * 1/1



☒ A- cyton B- node of ranvier C- axon terminal ✓

☐ A- perikaryon B- myelin sheath C- cyton

☐ A- cyton B- schwann cell C- dendrites

✓ 25. The type of lens used for correcting hyperopia is : * 1/1

☐ Biconcave

☒ convex ✓

☐ concave

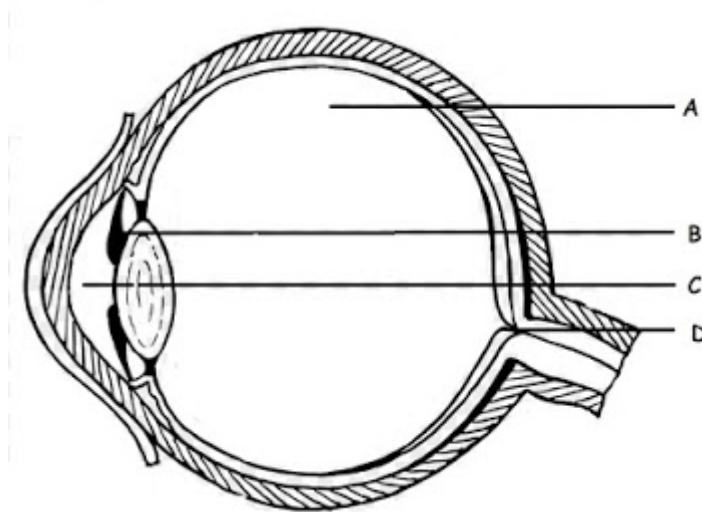
✓ 26. Which of the following is a neuro transmitter that transmits impulse from one neuron to another? * 1/1

☐ adrenaline

☒ acetylcholine ✓

☐ ampicillin

✗ 27. Identify the correct labelling for the diagram given below : * 0/1



☐ A- vitreous humour B- pupil C- lens D- blind spot

☐ A- vitreous humour B- iris C- aqueous humour D- blind spot

☒ A- aqueous humour B- iris C- pupil D- blind spot ✗

Correct answer

☒ A- vitreous humour B- iris C- aqueous humour D- blind spot

✗ 28. Choose the odd one out on the basis of regions of the brain : *

0/1

- ☐ Pons
- ☐ Cerebellum
- ☐ Medulla Oblongata

☒ Cerebrum

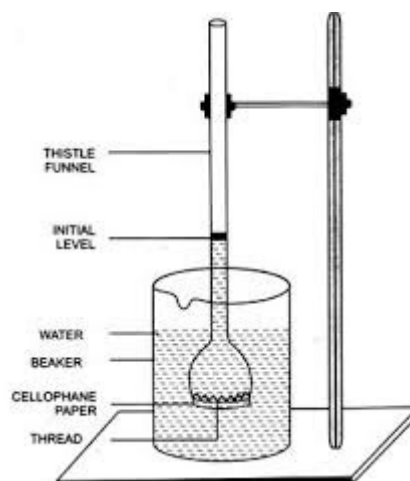
✗

Correct answer

☒ Pons

✓ 29. a) Pick the correct definition of the process demonstrated in the given experiment. *

1/1



- ☐ passage of salts or ions from a region of its lower concentration to a region of its higher concentration using energy through a living membrane.
- ☐ movement of molecules from a region of higher concentration to a region of lower concentration when the two are in direct contact
- ☒ movement of water molecules from a region of its higher concentration to a region of its lower concentration across a semi permeable membrane

✓



✗ 29. b) Which among the following could be set up as control for experiment Q.29 (a) ? *

0/1

- ☒ taking sugar solution of the same concentration in both the funnel and beaker ✗
- ☐ instead of the sugar solution, the thistle funnel also contains water just like in the beaker
- ☐ using muslin cloth instead of cellophane paper

Correct answer

- ☒ instead of the sugar solution, the thistle funnel also contains water just like in the beaker

✗ 29. c) Keeping in mind the root- hair cell and its surroundings, name the parts that correspond to (A) concentrated sugar solution (B) cellophane paper and (C) water in the beaker, respectively from the experiment Q.29 (a). *

0/1

- ☒ A- Cell sap within the root hair B- cell membrane of root hair C- water in the soil ✗
- ☐ A- water in the soil B- cell membrane of root hair C- Cell sap within the root hair
- ☐ A- fertilizer in the soil B- cell wall of root hair C- water within the root hair

Correct answer

- ☒ A- water in the soil B- cell membrane of root hair C- Cell sap within the root hair



30. Match the following: *

	semi circular canals	blind spot	synapse	macula lutea	astigmatism	meninges	Score	
(i) a defect in which some parts of the object are seen in focus while others are blurred.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	1/1	✓
(ii) a gap between two adjoining dendrites or axons	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1/1	✓
(iii) most sensitive region of the retina	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	1/1	✓
(iv) part of the ear associated with dynamic balance	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1/1	✓
(v) protective membranes around brain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	1/1	✓

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