

HALF YEARLY EXAMINATION

SEPTEMBER 2019

SET A

CLASS XI

Marking Scheme –BIOLOGY -044 [THEORY]

| Q.NO. | Answers |
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| 1. | Rugae – 1m |
| 2. | Presence of hemoglobin – 1m OR fish – 1m |
| 3. | Epithelial cells of Bowman’s capsule. – 1m OR a) Atrial Natriuretic Factor b) Glomerular Filtration Rate. $\frac{1}{2} + \frac{1}{2}$ m |
| 4. | The globular head 1m |
| 5. | Glycogen concentration decreases.- 1m |
| 6. | Primary bronchus→secondary bronchus→tertiary bronchi→initial bronchiole→Terminal bronchiole. 4X $\frac{1}{2}$ |
| 7. | Bp remain 140/90 for long time. Brain and Kidney. 1m ; $\frac{1}{2} + \frac{1}{2}$ m OR Hepatic portal system/ supplies nutrients to liver. 1+ 1m |
| 8. | Glycosuria – presence of glucose in urine; ketonuria- presence of ketone bodies in the urine. 1+1 OR a) Nephria b) flame cells c) protonephridia d) kidney 4X $\frac{1}{2}$ |
| 9. | A-iv ;B-ii ; C- i ; D-iii |
| 10. | Pituitary hormone regulating function of gonads in male and female. FSH and LH 1+ 1 |
| 11. | Respiratory roots; Rhizophora ; Storage : carrot/or any other relevant OR Fruit wall ; epicarp/mesocarp/endocarp $\frac{1}{2}$ X 4 |
| 12. | a) Xylem parenchyma b) phloem fibres c) sieve tubes and companion cells 4x $\frac{1}{2}$ |
| 13. | Bile- emulsification of fats/ lipase activation ; entericus – trypsinogen activation. 2+1 |
| 14. | Inspiration and exspiration $\frac{1}{2}$ m each. For any two differences – 2m OR Formation of oxyhemoglobin 1m; 4 factors affecting oxygen transport 4 x $\frac{1}{2}$ |
| 15. | Cigarette smoking 1m; alveolar wall damaged 1m; reduced surface area of gaseous exchange 1m |
| 16. | a) Atherosclerosis b) block coronar artery / blood supply to heart wall affected c)by reducing intake of salty food / regular exercise/ no overeating 1+1+1 OR Nerve end / synaptic knob/ neurotransmitter/ activates post synaptic membrane thus action potential is passed on to next neuron. 1+1+1 |
| 17. | Globulin, fibrinogen, albumin and one function each 1m each. |
| 18. | Diagram- 1m ; four parts – 2 marks (2 points) OR |

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| | Cortical and JM nephrons 1 m; 2 differences – 2m |
| 19. | Release of urine from urinary bladder. Stretching bladder generate action potentials and passing it to CNS/From CNS to smooth muscles of UB /and urethral sphincter muscles/ causes releasing of urine. 1+ 2 |
| 20. | Swimming of spermatozoa/ to maintain water current in canal system of sponges/ locomotion in protozoans 1 mark each. |
| 21. | a) For equalizing pressure on either side of the ear drum b) due to the presence of blood vessels c) for expression of emotions and regulation of sexual behavior |
| 22. | a) Pituitary Gland b) Thyroid gland c) Adrenal gland OR Definition – 1 m each |
| 23. | Stomata/ root hair / trichome – 1 m each. |
| 24. | open, closed and conjoint. 1 mark each. |
| 25. | i) (a) Mouth (b) Small intestine (c) Large intestine (d) Stomach 4 x ½ ii) 6 labelled parts 3 m OR Definition of each 5 m |
| 26. | Definition -1 m diagram and labelling – 4m OR a) Cortisol and aldosterone 1m b) Blood and axon 1+1 c) Acromegaly and hyper secretion of GH 1+1 |
| 27. | Definition – 1 m; correct placentation 4X ½ ; correct diagram 2m OR i) Definition – 1m correct type of aestivation – 2 m ii) Seed coat and embryo and cotyledon; embryo- radicle and plumule 2m |