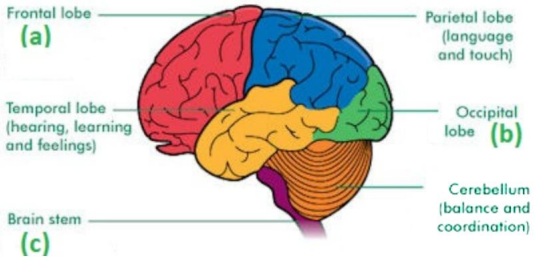
Zoology NTA Abhyas 57-59

01. Mark the correct statement **[NTA Abhyas-57-23]**
(1) All mammals have placenta
(2) All Chondrichthyes are marine animals with a streamlined body with some exceptions
(3) Larva of all cyclostomates return to fresh water after metamorphosis
(4) Chelone and Testudo are able to maintain a constant body temperature

02. Analyze the picture given below and fill the labeling (a), (b) and (c). **[NTA Abhyas-57-27]**



(1) (a) Thinking, memory, behavior, movement, sight (b) Maintenance of body temperature (c) Breathing, heart rate
(2) (a) Breathing, heart rate, temperature (b) Sight (c) Thinking, memory, behavior, movement
(3) (a) Thinking, memory, behavior, movement (b) Sight (c) Breathing, heart rate, temperature
(4) (a) Breathing, heart rate, thinking, memory, behaviour, movement (b) maintenance of body temperature (c) Sight

03. A person suffering from severe chills and recurring high fever for 3-4 days was diagnosed with malaria. The causative agent is responsible for the secretion of a toxic substance, which ruptures RBCs. This substance is called **[NTA Abhyas-57-35]**
(1) sporozoites (2) haematopoetin
(3) haem-protease **(4) haemozoin**

04. Which of the following males are not heterogametic? **[NTA Abhyas-57-39]**
(1) Birds (2) Drosophila
(3) Human (4) Grasshopper

05. ABO blood groups in humans are controlled by the gene I. It has three alleles –I^A, I^B and i. Since there are three different alleles, six different genotypes are possible. How many phenotypes can occur? **[NTA Abhyas-57-41]**
(1) Two (2) Three
(3) One **(4) Four**

06. Myopia vision is corrected by wearing **[NTA Abhyas-57-62]**
(1) Convex lenses **(2) Concave lenses**
(3) Convex mirrors (4) Concave mirrors

07. Select the correct pairing. **[NTA Abhyas-57-67]**
(1) Heart wall – Involuntary unstriated muscle
(2) Biceps of the upper arm – Voluntary unstriated muscle
(3) Abdominal wall – Involuntary striated muscle
(4) Iris – Involuntary unstriated muscle

08. Match the Column–I with Column–II: **[NTA Abhyas-57-74]**

	Column-I		Column-II
(a)	P-wave	(i)	Depolarisation of ventricles
(b)	QRS complex	(ii)	Repolarisation of ventricles
(c)	T-wave	(iii)	Coronary ischemia
(d)	Reduction in the size of T-wave	(iv)	Depolarisation of atria
		(v)	Repolarisation of atria

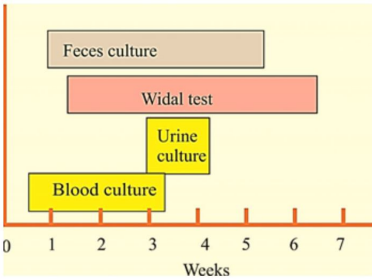
(1) a–(iv); b–(i); c–(ii); d–(iii)
(2) a–(iv); b–(i); c–(ii); d–(v)
(3) a–(ii); b–(i); c–(v); d–(iii)
(4) a–(ii); b–(iii); c–(v); d–(iv)

09. Which one of the following pairs is incorrecty matched? **[NTA Abhyas-57-80]**
(1) Glucagon – Beta cells (source)
(2) Somatostain – Delta cells (source)
(3) Corpus luteum – Relaxin (secretion)
(4) Insulin – Diabetes mellitus (disease)

10. Which one of the following statement is true regarding digestion and absorption of food in humans? **[NTA Abhyas-57-87]**
(1) Chief cells in our stomach secrete HCl
(2) Fructose and amino acids are absorbed through the inner lining of stomach with the help of carries ions like Ca^{+2}
(3) Chylomicrons are small lipoprotein particles that are transported from the intestine into blood capillaries
(4) About 60% of starch is hydrolysed in the stomach

11. Turner syndrome and klinefelter syndrome are all related to **[NTA Abhyas-58-16]**
(1) Both 'X' chromosome and 'Y' chromosome
(2) 'Y' chromosomes
(3) 'X' chromosomes
(4) neither 'X' chromosomes nor 'Y' chromosomes

12. The below representation is for there diagnosis of ____ fever? **[NTA Abhyas-58-17]**



(1) Typhus (2) malarial
(3) Enteric (4) Dengue

13. A monoclonal antibody differs from a polyclonal antibody in that monoclonal antibodies: **[NTA Abhyas-58-29]**
(1) are labeled with chemicals that can be visualised
(2) are produced by cells from the same organism that produced the antigen
(3) are synthesized by a population of identical, or "clonal", cells
(4) are synthesized only in living organisms

14. Match the source gland with respective hormones as well as the function correctly. **[NTA Abhyas-58-36]**
(1) Source gland–Anterior pituitary; Hormone–Oxytocin; Funtion–Contraction of uterus muscles during child birth
(2) Source gland–Posterior pituitary; Hormone–Vesopressin; Function–Stimulates reabsorption of water in the distal tubules in the nephron
(3) Source gland–Corpus luteum; Hormone–Estrogen; Function–Supports pregnancy
(4) Source gland–Thyroid; Hormone–Thyroxine; Function–Regulates blood calcium level

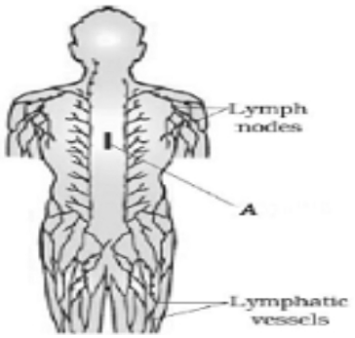
15. Match the terms in Column–I with their description in Column–II and choose the correct option: **[NTA Abhyas-58-40]**

	Column-I		Column-II
(a)	Dominance	(i)	Many genes govern a single character
(b)	Codominance	(ii)	In a heterozygous organism, only one allele express itself
(c)	Pleiotropy	(iii)	In a heterozygous organism, both alleles express themselves fully
(d)	Polygenic inheritance	(iv)	A single gene influences many character

(1) a–ii; b–i; c–iv; d–iii **(2) a–ii; b–iii; c–iv; d–i**
(3) a–iv; b–i; c–ii; d–iii (4) a–iv; b–iii; c–i; d–ii

16. Which of the following substances, if introduced into the blood strem, would cause coagulation of blood at the site of its introduction? **[NTA Abhyas-58-43]**
(1) Prothrombin (2) Fibrinogen
(3) Thromboplastin (4) Heparin

17. Which of the following features is correct about A? **[NTA Abhyas-58-51]**
(A) Endocrine gland (B) Lymphoid organ
(C) It is a part of M.A.L.T.
(D) Maturation of T-lymphocyte and B- lymphocytes



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

18. The bone matrix consists of **[NTA Abhyas-58-76]**
(1) 65% inorganic matter and 35% organic matter
(2) 30% inorganic matter arid 70% organic matter
(3) 60% inorganic Matter and 40% organic matter
(4) 40% inorganic matter and 60% Organic matter

19. The columnar epithelium is found in **[NTA Abhyas-58-82]**
(1) Lining of intestine (2) Lining of blood vessel
(3) Seminiferous tubule (4) Uriniferous tubules

20. The chromosome complement of the somatic cells in all human being is **[NTA Abhyas-58-84]**
(1) 21 pairs of autosomes and one pair heterosomes
(2) 23 pairs of autosomes and one pair of heterosomes
(3) 22 pairs of autosomes and one pair of heterosomes
(4) 22 pairs of autosomes and one pair of XY chromosomes

21. Which of the following is the example of conditioned reflex? **[NTA Abhyas-58-90]**
(1) Hand withdraws when pierced with a needle
(2) Eyes closed, when anything enter into it
(3) During digestion food goes forward in alimentary canal
(4) Trained dog salivates when you ring a bell

22. Identify the odd one from the diseases given below. **[NTA Abhyas-59-02]**
(1) Malaria (2) Filariasis
(3) Chikungunya **(4) Ringworm**

23. In human males urethra has **[NTA Abhyas-59-03]**
(1) transitional epithelium

(2) pseudostratified non-ciliated columnar epithelium
(3) non-kerathinlsed stratified squamous epithelium
(4) all of these

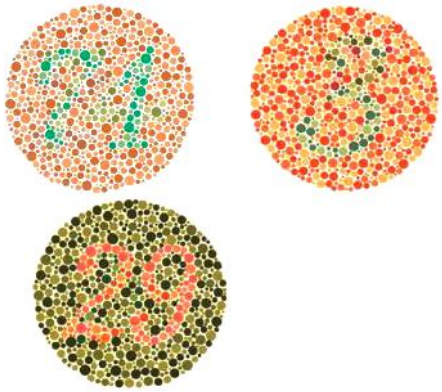
24. Which of the following statements is correct for the phylum whose organisms are characterized by the presence of a dorsal hollow nerve cord and paired pharyngeal gill slits? **[NTA Abhyas-59-08]**
(1) In all protochordates, notochord extends from head to tail region and is persistent throughout the life.
(2) The members of the class to which Myxine belongs show the presence of a sucking and circular mouth without jaws.
(3) Members of the class Osteichthyes show the presence of an air bladder, a streamlined body and four gills covered by operculum.
(4) The members of the class to which the frog belongs are cold blooded, show external fertilization and a three chambered heart i.e. one auricle and two ventricles.

25. Drosophila with y+ w/y w genotype has **[NTA Abhyas-59-11]**
(1) brown body, red eyes (2) yellow body, red eyes
(3) yellow body, white eyes **(4) brown body, white eyes**

26. Child B is born with the palm as depicted in the figure below. Which statement about this child is correct? **[NTA Abhyas-59-21]**

(1) The child has 47 chromosomes which includes an extra X chromosome
(2) The child has 45 chromosomes which includes one X chromosome less
(3) The child has 45 chromosomes which includes one autosome less
(4) The child has 47 chromosomes which includes an extra autosome

27. What can be predicted about the offsprings of a couple, if both of them can read the numbers in the picture given below clearly? **[NTA Abhyas-59-31]**



(1) They can have colourblind sons as well has colourblind daughters
(2) They can have colourblind daughters but not colourblind sons
(3) They can have colourblind sons but not colourlind daughters
(4) There is no chance that any of their children can have colourblindness

28. Observe the following X–Ray of the abdomen. What does it depict? **[NTA Abhyas-59-36]**

(1) Bile stones in the gall bladder
(2) Food in the small intestine
(3) Deposition of calcium oxalate in kidney
(4) Calcium phosphate renal stones

29. Which of the following statements are correct?
1. The hormone responsible for maintaining the diurnal rhythm of the body is secreted by a gland situated on the dorsal side of the forebrain.
2. Exophthalmic goitre is characterized by protrusion of eyeballs, weight loss, enlargement of the thyroid gland and decreased basal metabolic rate.
3. Addison's disease occurs due to decreased production of hormones from the outer part of the adrenal gland.
4. Hypersecretion of parathormone causes an increase in the deposition of calcium in bones. **[NTA Abhyas-59-43]**

(1) 1, 2 and 3 (2) 2, 3 and 4
(3) 1 and 3 (4) 2 and 4

30. The correct pathway of milk ejection from mammary glands is **[NTA Abhyas-59-61]**
(i) Sensory impulses are transmitted through somatic nerves from the nipples to the mothers spinal cord and then to her hypothalamus.
(ii) Expulsion of milk from alveoli into the ducts.
(iii) Suckling action of baby on the breast.
(iv) Contraction of myoepithelial cells.
(v) Secretion of oxytocin.
(1) (iv), (iii), (v), (i) & (ii) (2) (iii), (i), (v), (ii) & (iv)
(3) (iii), (i), (v), (iv) & (ii) (4) (iv), (iii), (i), (v) & (ii)

31. Prolonged use of anabolic steroids in males can lead to **[NTA Abhyas-59-76]**
(1) decrease in the size of testis and prostate gland
(2) increase in the size of testis and prostate gland
(3) decrease In the size of testis but Increase in the size of prostate gland
(4) increase in the size of testis but decrease in the size of prostate gland

32. Which of the following statements will be surely CORRECT about a vertebrate that has a complete four-chambered heart? **[NTA Abhyas-59-86]**
I. The animal shows pulmonary respiration.
III. The animal has double circulation.
III. The animal has left systemic arch (aorta curved to left).
IV. The animal can maintain constant body temperature.
(1) I, II, III and IV (2) I, II and IV
(3) I and II (4) II and IV