

THE ASIAN SCHOOL, DEHRADUN**PRACTICE PAPERS SESSION 2017-18****CLASS 10****SUBJECT Biology****CHAPTER- 1 Life Process**

Q1	Which mode of nutrition is seen in fungi and amoeba respectively.	1
Q2	What are enzymes?	1
Q3	Bile juice does not contain enzyme, even then it plays an important role in digestion. Explain.	1
Q4	Write the chemical reaction for photosynthesis.	1
Q5	What would be the consequences of a deficiency of haemoglobin in our bodies?	1
Q6	Name two waste products which are stored especially in old xylem.	1
Q7	What causes opening and closing of stomata in plants?	1
Q8	What is double circulation?	1
Q9	Why is diffusion insufficient to meet the oxygen requirements of multicellular organisms like humans.	2
Q10	Differentiate between autotrophic and heterotrophic nutrition.	2
Q11	How do amoeba and paramecium obtain their food?	2
Q12	Name the enzyme present in human saliva and give its role.	2
Q13	The length of small intestine differs in various animals depending on the food they eat. Explain.	2
Q14	Give two functions of small intestine in our body.	2
Q15	Name the enzymes present in pancreatic juice and give their functions.	2
Q16	How is the small intestine designed to absorb digested food in our body?	2
Q17	How are the lungs designed in human beings to maximise the area for exchange of gases?	2
Q18	What is transpiration? Why is this process important in plants?	2
Q19	Explain single circulation in fishes.	2
Q20	Draw a labelled diagram of a cross- section of a leaf.	3
Q21	What are the events which occur during the process of photosynthesis?	3
Q22	What are stomata? Give their functions.	3
Q23	Draw a labelled diagram of human alimentary canal.	3
Q24	Name the substances present in the gastric juice and give one function of each.	3
Q25	What are the different ways in which glucose is oxidised to provide energy in various organisms?	3
Q26	Draw a schematic diagram of sectional view of human heart.	3
Q27	Give reasons for the following: (a) Arteries are thick- walled. (b) The right and left side of the human heart is separated. (c) A proper system of transportation is essential in plants if the distances between soil- contacting organs and chlorophyll containing organs are large.	3
Q28	Explain, how are water and minerals transported in plants?	3
Q29	Explain, how is food transported in plants?	3
Q30	What are the components of the transport system in human beings? Give functions of these components.	3
Q31	What are the methods used by plants to get rid of excretory products.	3
Q32	(a) Draw a neat diagram of human excretory system and label on it- Left kidney, Aorta, Left ureter, Urinary bladder, Urethra and Renal artery. (b) List four substances present in the initial filtrate which are selectively reabsorbed by the tubules of nephron.	4

Q33	(a) Draw a labelled diagram of human respiratory system. (b) Differentiate between aerobic and anaerobic respiration.	4
Q34	(a) Give a schematic representation of transport and exchange of oxygen and carbon- dioxide in our body. (b) Differentiate between arteries and veins.	4
Q35	(a) Draw a labelled diagram of structure of a nephron. (b) Compare the functioning of alveoli in lungs and nephrons in the kidneys with respect to their structure and functioning.	4

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CLASS 10 SUBJECT Biology CHAPTER- 3 How Do Organisms Reproduce

Q1	Expand : a) AIDS b) STD's	1
Q2	Expand : a) IUCD b) HIV	1
Q3	Name the type of asexual method carried out in <i>Leishmania</i> .	1
Q4	Give modes of asexual reproduction found in : i) Amoeba ii) Planaria iii) Yeast iv) Bryophyllum	1
Q5	Organisms have a varied body design. Name the property which gives the basic difference in body design.	1
Q6	Why is DNA copying an essential part of the process of reproduction?	1
Q7	Name the organ known as 'birth canal' in female reproductive system.	1
Q8	State in brief the function of Urethra in man.	1
Q9	Why are papaya flowers called Unisexual?	1
Q10	Give one example of IUCD. In which part of the reproductive system it is placed?	1
Q11	The organisms formed by asexual reproduction are called clones. Give reason.	1
Q12	Differentiate between Vasectomy and Tubectomy.	2
Q13	What is the main difference between sperms and eggs of humans? Write the importance of this difference?	2
Q14	"The chromosomal number of the sexually producing parents and their offspring is the same". Justify this statement.	2
Q15	How do oral pills help in preventing unwanted pregnancy?	2
Q16	Draw a labeled diagram to illustrate budding in Hydra.	2
Q17	"The consistency of DNA copying during reproduction is important for the maintenance of body design features". Support this statement with two arguments.	2
Q18	Describe the role of the following in human male : a) Seminal Vesicles b) Prostate gland	2
Q19	How does the fusion of male and female gametes takes place in plants? Explain.	2
Q20	When we open a dicot seed, its embryo shows two main parts. Name these two parts and write their functions.	2
Q21	Explain how ovary functions both as reproductive organ as well as the endocrine gland?	2
Q22	List four changes that occur in human female at the age of puberty.	2
Q23	Write four points of difference between sexual and asexual reproduction?	2
Q24	Mention two advantages of using mechanical barriers during sexual act?	2
Q25	What is pollination. Differentiate between self pollination and cross pollination.	2
Q26	In tobacco plant, the male gametes have 24 chromosomes, state the number of chromosomes in : a) Egg nucleus b) Zygote c) Endosperm d) Leaf Cell	2
Q27	Draw a labeled diagram showing budding in yeast.	2
Q28	State the advantages of sexual reproduction over asexual reproduction.	2
Q29	List any two reasons for adopting contraceptive methods.	2

Q30	Differentiate between Pollination and Fertilization.	2
Q31	Name two STD's each caused due to bacterial infection and viral infection. How can these be prevented?	3
Q32	Explain the process of regeneration in planaria. How s this process different from reproduction sexually. Justify your answer.	3
Q33	Diagrammatically show the method of asexual reproduction in amoeba.	3
Q34	List and describe three methods of keeping gap between the birth of two children.	3
Q35	State in brief the functions of the following parts of human female reproductive system : i) Ovary ii) Fallopian Tube iii) Uterus iv) Vagina	3
Q36	State in brief the functions of the following parts of human male reproductive system : i) Scrotum ii) Testes iii) Vas Deferens	3
Q37	What happens if the egg is not fertilized in the body of human female? Explain.	3
Q38	What is Placenta? State its functions in human female.	3
Q38	Define the following processes : i) Ovulation ii) Implantation iii) Spore formation iv) Menstruation v) Gestation	5
Q39	a) Draw a sectional view of human female reproductive system and label the parts where : i) Egg develops ii) Fertilization takes place iii) Fertilized egg gets implanted b) Describe in brief the changes that uterus undergoes : i) To receive the zygote ii) To zygote is note formed	5
Q40	a) Draw the diagram of L.S. of a flower to show its male and female reproductive parts. Label the following in it : i) Ovary ii) Anther iii) Filament iv) Stigma v) Style vi) Petals b) What happens to the following parts after fertilization : i) Ovary ii) Ovules iii) Sepals vi) Petals.	5
Q41	a) Draw a labelled diagram of pistil showing pollen germination on Stigma and label the following in it : i) Female germ cell ii) Pollen Tube iii) Ovary iv) Male germ-cell v) Stigma vi) Pollen Grain b) Male and Female sex ratio is declining in our society. Give reason.	5
Q41	a) Draw a neat and labelled diagram of human male reproductive system and label the following in it : i) Testis ii) Vas-deferens iii) Seminal Vesicle iv) Prostate gland v) Penis vi) Urethra b) Testes are located outside the abdominal cavity in human male. Give reason.	5

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CLASS 10 SUBJECT Biology CHAPTER- 4 Heredity and Evolution

Q1	Define the term Heredity.	1
Q2	Define Evolution.	1
Q3	Define the term Genetics. Name the father of Genetics.	1
Q4	What is a Gene?	1
Q5	Who proposed the theory of inheritance of acquired characters?	1
Q6	Who proposed the theory of Natural Selection?	1
Q7	Acquired traits are not inherited. Give reason.	1
Q8	Define the term variations.	1
Q9	What do you mean by Phylogeny?	1
Q10	What is Genetic Drift?	1
Q11	Define the term Dominant Allele.	1
Q12	Define the term Recessive Allele.	1
Q13	Write the composition of mixture used by Miller in his experiment.	1
Q14	Give an example where sex determination is regulated by environmental factors.	1
Q15	How do variations help in the process of Evolution?	2
Q16	Differentiate between Acquired and Inherited traits.	2
Q17	Explain the importance of fossils in deciding evolutionary relationships.	2
Q18	Give the methods of finding out the age of fossils.	2
Q19	Differentiate between Genotype and Phenotype.	2
Q20	Differentiate between Homozygous and Heterozygous.	2
Q21	List four tools used to study evolutionary relationships?	2
Q22	Explain the methods of sex determination in humans.	3
Q23	Explain the law of dominance by using a monohybrid cross.	3
Q24	"Variation is beneficial to the species but not necessarily for the individual". Give three reasons to justify it.	3
Q25	Should Evolution be equated with progress? Why or why not?	3
Q26	A change that is useful for one property to start with can become useful for quite a different function. Explain with an example.	3
Q27	What are fossils? What do they tell about the process of evolution?	3
Q28	List three main factors responsible for the speciation and briefly describe each one of them.	3
Q29	a) Give the evidence that birds have evolved from reptiles. b) Insects, Octopus, Planaria and Vertebrates possess eyes. Can we group these animals together on the basis of eye that they possess. Justify your answer giving reason.	3
Q30	A tall pea plant bearing violet flowers is crossed with short pea plant bearing white flowers. Work out the F ₁ and F ₂ generations. Give F ₂ phenotypic ratio.	5
Q31	Mention the contrasting traits for seed colour and pod colour noted by Mendel in garden pea plant. Show Mendel's monohybrid cross using any one of these traits.	5

Q32	Write five factors which lead to evolution and explain them in detail.	5
Q33	Give a brief account of artificial selection by giving example of some vegetables.	5
Q34	<ul style="list-style-type: none">a) What are homologous organs? Give an example.b) Wings of bird and wings of an insect are analogous organs. Give reason.c) What is speciation? List two factors responsible for speciation.	5

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CLASS 10 SUBJECT Biology CHAPTER- 5 Our Environment

Q1	Why should biodegradable and non-biodegradable wastes be discarded into separate dust bins?	1
Q2	Which chemical is used in fire extinguisher that leads to degradation of ozone layer?	1
Q3	Name two biotic components of ecosystem.	1
Q4	Pesticide added to field is seen in increased amount in the crop and in the birds, that feed on them. What is the phenomenon called?	1
Q5	Why are green plants called producers?	1
Q6	State a way to prevent accumulation of harmful chemicals in our bodies.	1
Q7	What are decomposers? List two important roles they play in the environment.	2
Q8	Write any two differences between food chain and food web.	2
Q9	What are the advantages of using disposable paper cups over disposable plastic cups?	2
Q10	Write any four adverse effects of ozone depletion on our health.	2
Q11	"Industrialization is the one of the main cause of deterioration of environment." List any four reasons in favour of this statement.	2
Q12	What is ozone? How does it protect the organisms on earth?	2
Q13	Observe the food chain. Plant (1000 kJ) → goat → lion a. If autotrophs occupying the first trophic level are called producers, then what are herbivores called? b. How much energy does the lion get in the above food chain.	2
Q14	"The number of trophic levels in a food chain is limited" Give reason to justify this statement.	2
Q15	"Energy flow in a food chain is unidirectional". Justify this statement. Explain how the pesticides enter a food chain and subsequently get into our body.	3
Q16	What is ecosystem and explain its components briefly.	3
Q17	Your school was awarded best eco-friendly school award due to the efforts of eco- club of your school. a. List any two activities that helped eco- club to win this award. b. Mention the values displayed by members of eco- club	3
Q18	(i) What is the full form of UNEP & CFCs. (ii) On what basis are organisms grouped as producers, consumers and decomposers? (iii) We do not clean ponds or lake, but an aquarium needs to be cleaned regularly. Explain.	5
Q19	Name the following- a. Organisms feeding on animal and plant food. b. Organisms breaking down waste of living beings. c. The organisms occupying the first trophic level of any food chain. d. A complex network of interconnected food chains and feeding relationships. e. The cumulative increase in the concentration of persistent substance in successively higher levels of the food chain.	5

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CLASS 10 SUBJECT Biology CHAPTER- 6 Management of Natural Resources

Q1	Give one example each from your daily life where the domestic waste can be effectively reused and recycled.	1
Q2	"We need to manage our resources". List two reasons to justify this statement.	1
Q3	Water is valuable resource. List two ways that you would suggest every family member to save this resource.	1
Q4	Name the group of bacteria that confirm the contamination of water.	1
Q5	State the place that are referred as "biodiversity hotspots".	1
Q6	State one reason for the conservation of forest and wildlife.	1
Q7	How does mining cause environmental pollution?	1
Q8	What is watershed management system? List two benefits derived by the communities that participate in this system.	2
Q9	What is meant by biodiversity? List two advantages of conserving forest and wild life.	2
Q10	"Affluent life style has negative effect on the environment". Justify this statement with the help of an example.	2
Q11	Every one of us can do something to reduce the consumption of various natural resources. List four such activities based on 3-R approach.	2
Q12	Why is sustainable management of natural resources necessary? Which one out of reuse and recycle would you suggest to practice and why?	2
Q13	List four advantages of stored ground water.	2
Q14	What are stakeholders?	2
Q15	(a) What would be the advantage of exploiting resources with short term? (b) How would these advantages differ from the advantages of using a long term perspective in managing our resources?	2
Q16	What are the problems raised by people about large dams?	3
Q17	(a) Although coal and petroleum are produced by degradation of biomass, yet we need to conserve them. Why? (b) List any two causes for the failure of sustained availability of ground water.	3
Q18	What are the causes of pollution of river Ganga? Mention 3 points.	3
Q19	Your school placed green blue coloured dustbin outside every classroom for dumping their waste food ,waste paper, used pen, pencil shaving, plastic bag, aluminium foils empty mineral water bottles, etc. The garbage bins are emptied by the school sweeper in larger container of municipal committee for taking away to dumping ground. What improvement would you suggest? a. Segregate biodegradable and non-biodegradable waste produced by student and teacher in school. b. What values are shown by the school in cleaning the environment. c. List some garbage disposal methods.	3
Q20	a) Why is reusing even better than recycling. List any two reasons. b) Give any three examples of human activities leading to destruction of forests.	5
Q21	List some ancient system of water- harvesting in Rajsathan, Maharashtra, Madhya Pradesh, Uttar Pradesh, Bihar, Himachal Pradesh, Jammu Region, Tamil Nadu and Karnataka.	5
Q22	Prepare a list of five activities that you perform daily in which natural resources can be conserved or energy utilization can be minimized.	5