Chittagong Veterinary an Anima ciences ers ty

B. Sc. Fisheries (Hons.) 1st Year 1st semester Final Examination, 2013

Course No. & Title: FRS-101(T) & Fisheries Resources

Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any FIVE (5) questions from each section. Use separate answer script for each section.)

Section A

1.	a)	Define resource.	1
	b)	What do you mean by fisheries resources?	2
	c)	Define: Baor, Floodplain, Beel and River.	4
2.	a)	What are the objectives of sixth five year plan in fisheries of Bangladesh.	2
	b)	Write briefly the sectoral policies of DoF and BFDC.	3
	c)	Mention at least 7 institutions involved in fisheries education in Bangladesh.	2
3.		Give a list of exotic fishes of Bangladesh mentioning common name, scientific name, country of origin and year of introduction.	7
3.	a)	Explain fish egg, fish seed, spawn and fingerling.	2
	b)	Mention the methods of seed collection in fisheries.	2
	c)	Mention important natural carp spawning grounds of Bangladesh.	3
5.	a)	What do you mean by recreational uses of waterbodies?	2
	b)	Briefly describe the different forms of recreational uses of waterbodies.	5
6.	a)	Write down the scientific names of hilsa shad at present available in Bangladesh.	1
	b)	Mention the name of hilsa sanctuary mentioning position and banning period.	3
	c)	Mention the different spawning grounds of hilsa fishery in Bangladesh.	3
7.		Write short notes on:	
		a) Seaweeds	2.5
		b) NGO's in fisheries	2.5
		c) Sanctuary OR Haor	2.0

Section B

8.	a)	Mention the number of fish fauna at present available in Bangladesh: i) Freshwater fish, ii) Marine fish, iii) Freshwater prawn, iv) Marine shrimp, v) Exotic culturable fish species, vi) Endangered fish species.	3
	b)	Distinguish between shell fish and fin fish.	1.5
	c)	Write down five commercially important marine fish with their scientific names.	2.5
9.	a)	What do you mean by SIS?	01
	b)	Define: Exotic species, Indigenous species, Invasive species.	03
	c)	What are the impacts of introducing 'Tilapia' and 'African Magur' in culture system?	03
10.	a)	What is NFMP?	1
	b)	Write the objectives, principles and 'Jalmahal' management system under NFMP.	3
	c)	What are the goals and principles of NACP?	3
11.	a)	Why Halda river is called the native breeding ground for IMCs?	3
	b)	Give a scenario of present status of artificial seed production in fisheries.	4
12	a)	Distinguish between a major carp and a minor carp.	1.5
	b)	What are the different techniques for the carp seed production in Bangladesh?	3
	b)	What are the problems associated with natural seed collection?	2.5
13.	a)	What are the values of recreation?	3
	b)	Describe briefly the future prospects of recreational waterbodies in Bangladesh.	4
14.		Write short notes on:	
		a) National fish policy	2.5
		b) Fishing gears OR Non piscine fisheries organisms	2.5
		c) Cartilaginous fish OR The Old Brahmaputra River	2.0

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No &Title: FZO-101 (T); Fisheries Zoology (Theory)
Total Marks: 70, Time: 3 hour

Answer any 05 (five) questions from each section. The figures in the right margin indicate full marks.

Section-A

1.	a.	Define Fish and Fisheries Zoology.	2.0
	b.	Distinguish between invertebrates and vertebrates.	3.0
	c.	Classify Protozoa on the basis of their locomotion.	2.0
2.	a.	What does Porifera mean?	1.0
	b.	What are the general features of Porifera?	3.0
	c.	Classify Porifera and give one example from each class.	3.0
3.	a.	What do you mean by Molluska?	1.0
	b.	Write down five identifying characters of the class Gastropoda.	3.0
	c.	Compare and contrast the external morphology of *Loligo* and *Sepia*.	3.0
4.	a.	What is Nematoda?	1.0
	b.	Mention the harmful effects of in plants and animal kingdom.	3.0
	c.	Briefly discuss the global economic significance of Oligochaetes.	3.0
5.		Briefly describe adaptation of animals to aquatic life with special reference to temperature and salinity.	7.0
6.	a.	Classify turtle up to genus level.	2.0
	b.	Briefly describe the life cycle of turtle.	5.0
7.		Write short note on the following (any two)	3.5×2=7.0
	a.	Echinodermata	
	b.	Economic significance of Porifera	
	c.	Hermaphrodites	

Section-B

8.	a.	What are the characters are used as a basis of classification of Mammals?	2.0
	b.	Write down the general characters of Mammals.	3.0
	c.	Diagrammatically show the life cycle of Rotifera.	2.0
9.	a.	Give taxonomic classification of crocodile.	2.0
	b.	Briefly describe the life cycle of crocodile.	5.0
10.	a.	What is Platyhelminthes?	2.0
	b.	Classify the phylum Platyhelminthes with example.	3.0
	c.	Draw and level a typical Platyhelminthes.	2.0
11.	a.	Write down different types of adaptation?	2.0
	b.	Briefly describe the structural adaptation in fish.	5.0
12.	a.	What do you know mean by hibernation and aestivation?	3.0
	b.	How does a frog breath?	2.0
	c.	How does a tadpole turn into a frog?	2.0
13.	a.	What is Arthropoda?	2.0
	b.	Briefly describe the general characters of Arthropoda.	3.0
	c.	Write down the economic significance of Arthopoda.	2.0
14.		Write short note on the following (any two)	3.5×2=7.0
	a.	Amphibia	
	b.	Behavioral adaptation	
	c.	Dolphin	

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No & Title: FTE-101 (T); Fishing Technology (Theory)
Total Marks: 70, Time: 3 hour

Answer any 05 (five) questions from each section. The figures in the right margin indicate full marks.

Section-A

1.	a.	Define Fishing Technology.	1.0
	b.	Differentiate between i) fishing gear and fishing craft, ii) active gear and passive gear.	4.0
	c.	Write down importance of studying 'Fishing Technology' to manage capture fisheries of the Bay of Bengal	2.0
2.	a.	What do you know about UNCLOS?	1.0
	b.	Describe briefly international classification of fish trawlers and seiners.	4.0
	c.	Name the factors on which efficiency of fishing gears depends on.	2.0
3.	a.	What is stupefying gear? How rotenone kills fish?	2.0
	b.	Draw and label the different parts of a modern fish trawler.	5.0
4.	a.	Mention the names of important natural and synthetic fibers used in fishing.	2.0
	b.	Describe briefly the different counting system of fishing yarn.	4.0
	c.	What is yarn?	1.0
5.	a.	Why net is preserved?	2.0
	b.	Mention the merits and demerits of net preservation.	3.0
	c.	Write down the methods of coal-tar preservation of fishing net used in sea water.	2.0
6.	a.	Describe briefly-' Destructive fishing and recreational fishing'	2.0
	b.	Elaborate the term: 350TexZ150 x 4S340 x 3Z170.	2.5
	c.	Do you think nylon is an ideal fishing net? Justify your answer.	2.5
7.	a.	Compare between float and sinker.	1.0
	b.	Write down principles of fishing.	3.5
	c.	What do you know about EEZ and territorial water body?	2.5

Section-B

8.	a.	Draw and label a typical bottom water trawl net used in shrimp fishing in the Bay of Bengal.	4.0
	b.	Mention different types of gill nets used in the Bay of Bengal.	3.0
9.	a.	Differentiate between fish location and fish detection.	2.0
	b.	Describe briefly- "The Marine Fisheries Ordinance, 1983 of Bangladesh"	5.0
10.	a.	Why knowledge of navigation is important in fishing?	2.0
	b.	Write down the names of fishing grounds in the Bay of Bengal with their location.	2.5
	c.	Write down the English and scientific names of 5 (five) commercial fishes in the Bay of Bengal.	2.5
11.	a.	What is TED? Schematically show TED in commercially important fish net.	2.5
	b.	Describe briefly the FAO code of conduct for responsible fishing.	4.5
12.	a.	Write down the post fishing activities to be followed on board vessel for commercial fishes on the Bay of Bengal.	4.0
	b.	Mention the names of important appliances needed in a commercial fishing trawler.	2.0
	c.	Is long lining in the Bay of Bengal commercial? Justify.	1.0
13.	a.	Mention the responses of fish towards different kinds of stimuli.	3.0
	b.	Write a short note on trammel net.	2.0
	c.	Differentiate between trolling and trawling.	2.0
14.	a.	What is jigging?	1.0
	b.	Write down working principle of echo-sounder.	4.0
	c.	Do you think ghost fishing is harmful? Justify your answer.	2.0

Chittagong Veterinary and Animal Sciences University, Chittagong

Faculty of Fisheries

B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015

Course No & Title: FWA-101 (T); Freshwater Aquaculture (Theory)

Full Marks: 70, Time: 3 hour

Answer any 05 (five) questions from each section. The figures in the right margin indicate full marks.

Section -A

1.	a)	Define pond aquaculture and emergency spillway.	2
	b)	What are the salient features that you will consider for construction of an ideal pond for fish culture?	3
	c)	Write down the scope of aquaculture in Bangladesh.	2
2.	a)	What is primary productivity?	2
	b)	Briefly describe the parameters those effect the primary productivity of an aquafarm.	3
	c)	What is the necessity of fertilization in case of primary productivity?	2
3.	a)	Discuss the effects of pond drying.	2
	b)	Give the name of different kinds of lime with their use and methods of application.	3
	c)	How can liming influence on the effectiveness of fertilization?	2
4.	a)	What is the aim of fertilization?	2
	b)	Mention the general rules that should be followed for applying fertilization.	2
	c)	Write down advantages and disadvantages of organic and inorganic fertilization.	3
5.	a)	Describe the different steps for a nursery pond preparation.	5
	b)	How will you manage a nursery pond after preparation?	2
6.	a)	What are the differences between induced spawning and artificial propagation?	2
	b)	Enumerate the methods of producing fish seeds of Rui by the injection of pituitary extracts.	5
7.	Write short note on any two of the following:		3.5x2=7
	a)	Traditional aquaculture system	
	b)	Cannibalism	
	c)	Brood bank in Bangladesh	

Section-B

1.	a)	What are the main developmental stages in the life cycle of a fish?	2
	b)	Briefly discuss production stages of a fish hatchery.	3
	c)	Write down the main benefits of hatchery seed production.	2
2.	a)	Why is it necessary to control aquatic weeds in ponds?	2
	b)	Describe various measures that you will consider for the control of unwanted vegetation in lentic habitat.	5
3.	a)	What are the advantages and disadvantages of pen culture?	2
	b)	List the name of 5 (five) important freshwater fish species for pen culture.	2
	c)	Discuss the location, construction and management of pen culture.	3
4.	a)	Why anesthetics are used in aquaculture?	2
	b)	How fish can be recovered after using of anesthetic agents?	3
	c)	Mention the causes of mortality of fish fry during transportation.	2
5.	a)	Write down the prospects of mono-sex tilapia culture.	3
	b)	Describe the cage culture practices in Bangladesh.	4
6.	a)	What are the objectives of SIS culture?	2
	b)	Describe the culture of any one important SIS species in Bangladesh.	5
7.	Write short note on any two of the following:		3.5x2=7
	a)	Supplementary diet	
	b)	Inbreeding	
	c)	HAB's	

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No & Title: BCH-101 (T); Biochemistry (Theory)
Total Marks: 70, Time: 3 hour

*Answer any **03 (three)** questions from each section of which question number **1 and 5 are compulsory**. The figures in the right margin indicate full marks.*

Section-A

1.	**a.**	Define protein. Classify protein with example on the basis of biological function.	**1+3=4**
	b.	What is meant by isoelectric point? Write down the structure of one basic and basic amino acid.	**1+2=3**
	c.	Define transamination reaction with example. Discuss the role of antifreeze glycoprotein in polar aquatic animal.	**2+2=4**
2.	**a.**	Justify that citric acid cycle is the final common metabolic pathway for the oxidation of food stuff.	**3**
	b.	What is biogenic amine? Draw the relationship between Urea cycle and TCA cycle.	**4**
	c.	Compare the structural features of amylase, amylopectin, glycogen and cellulose.	**4**
	d.	Briefly comment on Coricycle.	**1**
3.	**a.**	What is transcription? Briefly outline the basic process of transcription.	**1+3=4**
	b.	Write down the function of tRNA and mRNA in protein synthesis.	**3**
	c.	Name hormones of posterior pituitary gland. Mention their biological functions.	**1+2=3**
	d.	Write down the structure of cholesterol and its function.	**2**
4.	**a.**	Define biocatalyst? Explain the Koshland model and Fischer's template model for enzyme catalyzed reaction.	**1+2=3**
	b.	Discuss the effect of substrate concentration and temperature on the rate of enzymatic reaction.	**3**
	c.	What is Km? Write down the significance of Km?	**3**
	d.	All enzymes are protein but all proteins are not enzyme-Justify.	**3**

Section-B

5.	**a.**	Define metabolism? Write down the major pathways of carbohydrate metabolism.	**1+2=3**
	b.	Write down the irreversible steps of gylcolysis? Calculate the total number of ATP in case of anaerobic glycolysis.	**2+2=4**
	c.	Write down the significance of PPP pathway?	**2**
	d.	Define β-oxidation? "Carnitine acts as a ferry boat in fatty acid oxidation"-Justify this statement.	**1+1=2**
6.	**a.**	Define lipids. Discuss the biological function of lipid.	**1+3=4**
	b.	What is meant by polyunsaturated fatty acid? Write down the significance of acid value and saponification value.	**1+2=3**
	c.	Define restriction enzymes? Write down the principles of recombinant DNA technology.	**1+2=3**
	d.	Distinguish between nucleotide and nucleoside.	**2**
7.	**a.**	Define cell? Draw and label a eukaryotic cell. Write down the function of mitochondria and lysosome.	**1+2+1=4**
	b.	Explain the following: i. Allosteric enzyme; ii. Rancidity	**2+2=4**
	c.	Show in flow diagram an overview of cloning system strategies in recombinant DNA technology.	**4**
8.		Write notes on any 6 (six) of the following: a. Chemical basis of life; b. Replication; c. Chargaff's rule; d. Tm value of nucleic acid; e. Protein denaturation; f. Bioluminescence; g. Free energy; h. Phospholipid	**6×2=12**

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No & Title: Computer Science (Theory)
Total Marks: 70, Time: 3 hours

Answer <u>any 05 (five)</u> questions from each section. The figures in the right margin indicate full mark.

Section-A

1.	(a)	Evaluate the following binary operations: (i) 10100_2-11011_2 (ii) 110100_2+10101_2	5
	(b)	What do you understand by ASCII and EBCDIC codes?	2
2.	(a)	Briefly explain serial transmission and parallel transmission with block diagram.	4
	(b)	Explain how does a modem work.	3
3.	(a)	Explain some important characteristics of any three types of following computer: (i)Workstation (ii) Minicomputer (iii)Notebook (iv)Super Computer	3x2=6
	(b)	Explain the uses of analog and digital computer.	1
4.	(a)	Briefly describe four number systems.	2
	(b)	List the decimal sequence 1 through 15 in Binary, Octal and hexadecimal number systems.	5
5.	(a)	What is network? Write down the differences between LAN and MAN.	5
	(b)	What is web browser? List some popular web browser.	2
6.	(a)	Find out the differences between data and information.	2
	(b)	Compare a computer with a calculator.	2
	(c)	What is processor? What are the functions of control unit?	3
7.	(a)	What is operating system? Discuss the major functions of operating system.	4
	(b)	Write down the characteristics of the following types of operating system: (i) Single User and Single Tasking (ii) Real Time	1.5x2=3

Section- B

8.	(a)	Explain how a hard disk works.	4
	(b)	Write down the major distinctions between storage and memory.	3
9.	(a)	Briefly explain the major functions of Arithmetic Logic Unit.	3
	(b)	What are the major distinctions between RAM, ROM and Flash Memory?	4
10.	(a)	Explain how Cache is used to speed up a computer system.	4
	(b)	List some common input and output devices.	3
11.	(a)	What is virus? How does it affect a computer program?	5
	(b)	Write short notes on Trojan Horse.	2
12.	(a)	Write down the classification of software with examples.	5
	(b)	Differentiate between High Level Language and Machine Level Language.	2
13.	(a)	Convert the following numbers to binary: (i) 653.625_{10} (ii) 235.07_{10}	4
	(b)	Convert the following hexadecimal numbers to binary: (ii) $129A.B86_{16}$ (ii) $3D59_{16}$	3
14.	(a)	What is database? What are the basic functions of database management system?	5
	(b)	Explain the uses of analog and digital computer.	2

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No & Title: FRS-101 (T); Fisheries Resources (Theory)
Full Marks: 70, Time: 3 hour

Answer any 05 (five) questions from each section. The figures in the right margin indicate full marks.

Section-A

1.	a.	Define resource.	1.0
	b.	What are the fisheries resources of Bangladesh?	2.0
	c.	Define commercial fish species.	1.0
	d.	Write five commercial fish species with their scientific name.	3.0
2.	a.	What do you mean by Hilsa fishery in Bangladesh?	3.0
	b.	Briefly describe the principles of New Agricultural Extension Policy.	4.0
3.	a.	Define Indigenous species.	1.0
	b.	Give a list of five commercially important indigenous fish species of Bangladesh with their local and scientific names.	2.0
	c.	Briefly discuss the importance of SIS?	2.0
	d.	Write down the reasons behind degradation of SIS diversity now-a-days.	2.0
4.	a.	What do you know about the exotic fish fauna of Bangladesh?	3.0
	b.	What are the objectives of introducing exotic fish in Bangladesh?	4.0
5.	a.	Define Haor, Baor and Beel.	3.0
	b.	What are the major characteristics of the main river systems of Bangladesh?	4.0
6.	a.	Write down the name of different Hilsa species found in Bangladesh.	2.0
	b.	Briefly discuss the spawning, nursing and recruitment of Hilsa.	5.0
7.	a.	What does the term "Non-piscine fisheries organisms" mean?	1.0
	b.	Write a short note on importance of seaweed.	2.0
	c.	Give a list of major shell fish resources of Bangladesh with their English & scientific names.	4.0

Section-B

8.	a.	Write briefly the sectoral policies of DoF and BFDC.	3.0
	b.	What are the objectives of sixth five year plan in fisheries of Bangladesh?	4.0
9.	a.	How do you explain fauna and flora?	3.0
	b.	Put your recommendations in favor of the following exotic fish in our aquaculture : i) Silver carp; ii) Tilapia; iii) Rajpunti.	4.0
10.	a.	"Hilsa is an anadromous species" – why?	1.0
	b.	Give a pictorial presentation of life cycle of Hilsa.	2.0
	c.	What are the conservation measures for the welfare of Hilsa fishery in Bangladesh?	4.0
11.	a.	What is fish seed?	1.0
	b.	Why is fish seed important for aquaculture?	3.0
	c.	What are the problems associated to seed production from natural sources in Bangladesh?	3.0
12.	a.	What do you mean by recreational uses of waterbodies?	1.0
	b.	Briefly discuss different forms of recreational uses of waterbodies.	3.0
	c.	Write down the recreational fisheries resources of Bangladesh.	3.0
13.	a.	Differentiate between exotic and invasive species.	2.0
	b.	Give a list of five important exotic cultured fish species, which have been introduced in Bangladesh with their common and scientific name.	2.0
	c.	Write on the mollusk fishery resources of Bangladesh.	3.0
14.	a.	List down the fishing grounds of the Bay of Bengal.	2.0
	b.	What are the different institutions involved with fisheries sector of Bangladesh?	3.0
	c.	What do you mean by CBFM?	2.0

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B. Sc. Fisheries (Hons.) Year -01, Semester-01, Final Examination' 2015
Course No & Title: FWE-101 (T); Freshwater Ecology (Theory)
Full Marks: 70, Time: 3 hour

Answer any 05 (five) questions from each section. The figures in the right margin indicate full marks.

Section-A

1.	a.	What do you mean by freshwater ecology?	1.0
	b.	Differentiate between autecology and synecology.	2.0
	c.	"Pond is an example of ideal ecosystem" – explain.	4.0
2.	a.	What do you mean by limiting factor?	2.0
	b.	State Liebig's law of the minimum.	2.0
	c.	Explain the terms – 'Stenohaline' and 'Euryhaline'.	3.0
3.	a.	Define community.	1.0
	b.	Differentiate between major community and minor community.	2.0
	c.	What do you mean by primary succession?	2.0
	d.	Define diel and seasonal periodicity.	2.0
4.	a.	What is the relationship between trophic level and food chain?	2.0
	b.	What are the differences between detritivores and decomposers?	2.0
	c.	How does Y-shaped food chain form?	3.0
5.	a.	What is ecological indicator? Why is it important?	2.0
	b.	Write down the properties of a population.	2.0
	c.	What are the various forms of dispersal?	3.0
6.	a.	What do you mean by cohort and generation time?	2.0
	b.	Show the major river systems in the map of Bangladesh.	2.0
	c.	Classify population dispersion.	3.0
7.	Write short notes on any two of the followings:		3.5 x 2 = 7.0
	a.	Ecological pyramids;	
	b.	Carrying capacity;	
	c.	Climax community.	

Section-B

8.	a.	Define ecosystem.	1.0
	b.	What are the components of an ecosystem?	3.0
	c.	How does energy flow in an ecosystem?	3.0
9.	a.	How does ecosystem maintain homeostasis? Explain with example.	3.0
	b.	Classify freshwater organisms based on their life forms.	4.0
10.	a.	Differentiate between lentic and lotic habitat.	3.0
	b.	Why does stratification occur in temperate lakes?	4.0
11.	a.	Briefly describe ecological age class.	3.0
	b.	What are the specialized adaptations of running water communities?	4.0
12.	a.	Write down the sources of river.	3.0
	b.	Write down the origin and pathways of two major river systems of Bangladesh.	4.0
13.	a.	What do you mean by ecotone and edge effect?	3.0
	b.	Briefly describe the zonation of lentic aquatic systems.	4.0
14.	a.	What are the differences between density dependent and density independent factors for limiting population.	3.0
	b.	Write down the topographical classification of river.	4.0

11.	a.	Define packaging. What are the major functions of packaging?	1.0
	b.	What is IQF? How IQF products are packed? Write down the properties of an ideal fish package.	2.0
	c.	What are the usages of irradiation in food preservation? Define commercial sterility.	1.0
	d.	Compare vacuum packaging, controlled atmosphere packaging and modified atmosphere packaging as a means of shelf life extension of fish.	3.0
12.	a.	What is the generation time of bacteria and name the five spoilage bacteria in fish.	2.5
	b.	Mention the names of different methods of chilling.	1.5
	c.	What is glazing and how it is done in fish?	3.0
13.	a.	Write down the different methods and importance of washing and grading of fishes during preservation.	3.0
	b.	What is sensory quality assessment table for sorting and grading?	2.5
	c.	Mention the role of temperature during preservation.	1.5
14.	a.	Write down the prospects of live fish transportation. Briefly describe the methods of live fish transportation.	3.0
	b.	List down the factors associated with successful transportation of live fish and describe any two important factors.	3.0
	c.	Consider that you have the following stocks- fatty fish (sardine/salmon), lean fish (cod/ haddock), flatfish (flounder), and crustaceans (lobster/ shrimp). You have three frozen storage facilities (-18°C, -25°C and -30°C). Which storage facility will provide maximum storage life and which one will be more economical? Justify your answer. Which particular stock will have longer storage life?	1.0

Chittagong Veterinary and Animal Sciences University, Chittagong
Faculty of Fisheries
B.Sc. Fisheries (Hons.) Year -01, Semester-02, Final Examination' 2014
Course No &Title: CSC-102(T); Computer Science (Theory)
Total Marks: 70, Time: 3 hour

Answer any <u>04 (four)</u> questions from each section where question <u>1 and 6 are compulsory</u>. *The figures in the right margin indicate full mark.*

Section-A

1.	a)	What are the basic differences between CISC and RISC?	2
	b)	What are the uses of secondary storage in a computer system?	1.5
	c)	Distinguish between hardware and software.	1.5
2.	a)	What is digital computer? Briefly explain the data processing cycle of computer system.	5
	b)	What is meant by computer generation? Write short note on super computer.	5
3.	a)	Calculate the difference: i) 1100101001-110110110 ii) 1010-1011	4
	b)	Add the following numbers: 100101 and 10100	2
	c)	What do you mean by BCD and Unicode?	4
4.	a)	What are I/O devices? List common I/O devices.	2
	b)	Explain how data is stored on the surface of magnetic and optical disks.	5
	c)	Write the characteristics of address bus and control bus.	3
5.	a)	What do you mean by operating system? Discuss the major functions of DOS operating system (OS).	5
	b)	Write the advantages of WINDOWS.	3
	c)	What do you understand by multi-user operating system? Give examples.	2

Section-B

6.	a)	Convert the Binary from $127_{(10)}$	2.5
	b)	Convert the following octal number to hexadecimal equivalent. $7025_{(8)}$	2.5
7.	a)	What is network topology? Describe two basic topologies.	4
	b)	What do you understand by computer networks? List some common uses of computer networks.	3.5
	c)	Describe the general characteristics of LAN.	2.5
8.	a)	Define computer virus and antivirus.	3
	b)	What do you mean by Database management system? Write two reasons why need data normalization.	5
	c)	Write the name of some popular web browser.	2
9.	a)	What is disk formatting and file defragmentation.	3
	b)	State the salient features of CRT, LCD and LED monitor.	3
	c)	A printer is said to have a resolution of 600dpi; what does this mean?	4
10.	a)	What is a search engine? List three names of popular search engine.	2.5
	b)	Write short notes on E-mail.	2.5
	c)	What is a modem? Explain how two distant computers can communicate through telephone line using modems.	5