FORESTRY

TIME ALLOWED:	(PART-I)	30 MINUTES	MAXIMUM MARKS:20
	(PART-II)	2 Hours & 30 Minutes	MAXIMUM MARKS:80

NOTE:	(i) **First** attempt **PART-I (MCQ)** on separate **Answer Sheet** which shall be taken back after **30 minutes**.
	(ii) **Overwriting/cutting of the options/answers will not be given credit.**

PART – I (MCQ)
(COMPULSORY)

Q.1 Select the best option /answer and fill in the appropriate box on the Answer Sheet. (20)

(i) Resin is obtained from:
 (a) Acacia nilotica
 (b) Pinus roxburgli
 (c) Abies pindrow
 (d) None of these

(ii) Silk worms are reared on:
 (a) Morus alba
 (b) Dalbergia sissoo
 (c) Ficus religiosa
 (d) None of these

(iii) Arid Zone Research Institute is located at:
 (a) Islamabad
 (b) Bahawalpur
 (c) Quetta
 (d) None of these

(iv) Pneumatophores are typical:
 (a) Stems
 (b) Branches
 (c) Leaves
 (d) None of these

(v) Increment borer is an
 (a) Insect
 (b) Instrument
 (c) Fungi
 (d) None of these

(vi) Lignin is present in:
 (a) Seed
 (b) Leaves
 (c) Wood
 (d) None of these

(vii) Beneficial Fungi present in roots are called:
 (a) Mitochondria
 (b) Mycorrhiza
 (c) Mitosis
 (d) None of these

(viii) Dalbergia sissoo is native of:
 (a) Australia
 (b) Austria
 (c) Nepal
 (d) None of these

(ix) Cook's formula is used to calculate:
 (a) Amount of rainfall
 (b) Amount of sediments
 (c) Amount of suspended particles
 (d) None of these

(x) LAI refers to:
 (a) Life
 (b) Longitude
 (c) Leaves
 (d) None of these

(xi) Technical name of Markhore is:
 (a) Capra ibex
 (b) Canis aureus
 (c) Panthera uncia
 (d) None of these

(xii) Technical name of Partal is:
 (a) Pinus wallichiana
 (b) Alnus nitida
 (c) Abies pindrow
 (d) None of these

(xiii) Bela forests are found along:
 (a) Canals
 (b) Sea
 (c) River
 (d) None of these

(xiv) Harvesting or removal of diseased and broken trees is known as:
  (a) Normal thinning   (b) Sanitary thinning
  (c) Light thinning   (d) None of these

(xv) Plumule gives rise to:
  (a) Stem   (b) Root
  (c) Leaves   (d) None of these

(xvi) Avicenia officinalis is a typical species of:
  (a) Dry Temperate   (b) Riverian
  (c) Mangrove   (d) None of these

(xvii) Most suitable method of tree planting in waterlogged soils is:
  (a) Dibble planting   (b) Notch planting
  (c) Mound planting   (d) None of these

(xviii) Tannin can be extracted from:
  (a) Bark   (b) Leaves
  (c) Small branches   (d) None of these

(xix) Tapering is a characteristic of:
  (a) Grass tillers   (b) Tree stem
  (c) Tree canopy   (d) None of these

(xx) Junipers exude Terpentine oil from:
  (a) Stem   (b) Leaves
  (c) Bark   (d) None of these

PART – II

NOTE:	(i) **PART-II** is to be attempted on the separate **Answer Book.** (ii) Attempt **ONLY FOUR** questions from **PART-II**. All questions carry **EQUAL** marks. (iii) Extra attempt of any question or any part of the attempted question will not be considered.

Q.2. Pakistan is a forest deficient country. Describe the key factors responsible for scarcity of forest resources in the country. (20)

Q.3. Juelicious Watershed Management may help overcome water and power crisis in the country. Please justify with arguments. (20)

Q.4. What is meant by <u>Social Forestry</u>? Explain its various types being practiced in Agro-Ecological zones of Punjab and Sindh. (5+15)

Q.5. By using Von Mantle's formula, calculate Annual yield of a coniferous forest whose growing stock volume is 40,000 cft and rotation period of 150 years. Why constant is used in this formula. (20)

Q.6. Name the most productive Range land of Pakistan. Describe its carrying capacity, rainfall, topography, vegetations and constraints (if any). (5+15)

Q.7. Define Biological Diversity. Enlist the factors threatening Biological Diversity. Suggest measures to save and restore it. (10+10)

Q.8. Write short notes on any FIVE of the following: (4x5)
  (a) Browse line   (b) Merchantable Timber
  (c) Volume Table   (d) Game Reserve
  (e) Randomization   (f) Normal Forest
  (g) EC   (h) Stubble Farming

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