

FORESTRY



**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BPS-17 UNDER
THE FEDERAL GOVERNMENT, 2009**

FORESTRY

S.No.	
R.No.	

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) The study of individual and its relationship to the environment is called:
 - (a) autecology
 - (b) synecology
 - (c) ecosystem
 - (d) None of these
- (ii) A forest ecosystem development process, starting from establishment of pioneer species upto its climax stage is called:
 - (a) restoration
 - (b) fragmentation
 - (c) succession
 - (d) None of these
- (iii) The inhibition of germination, growth or metabolism of one plant by another through the production of toxic chemical compounds that escape into the environment is called:
 - (a) mycotrophy
 - (b) allelopathy
 - (c) symbiosis
 - (d) None of these
- (iv) Settling down of water in the form of dew, rain, hails or snow is called:
 - (a) precipitation
 - (b) rainfall
 - (c) both of these
 - (d) None of these
- (v) Hypoxia is the condition in soil where plants experience:
 - (a) waterlogging
 - (b) oxygen deficiency
 - (c) high concentration of salts
 - (d) All of these
 - (e) None of these
- (vi) Lopping of trees for animal fodder purpose is called:
 - (a) grazing
 - (b) browsing
 - (c) tethering
 - (d) coral feeding
 - (e) None of these
- (vii) Pyric factor is important affecting forest growth, it means:
 - (a) temperature
 - (b) radiation
 - (c) nutrients
 - (d) None of these
- (viii) The direction towards which a compass needle points is called:
 - (a) the true direction of North Pole from the observer
 - (b) magnetic north
 - (c) prismatic compass
 - (d) None of these
- (ix) Nutritious stage of plant growth for fodder and forage purpose is:
 - (a) at early growth stage
 - (b) seeds are ripened
 - (c) at first bloom
 - (d) None of these
- (x) One animal unit is a cow having weight of:
 - (a) 450 kg
 - (b) 900 kg
 - (c) 1000 kg
 - (d) None of these
- (xi) The undecomposed plant material present on forest soil surface is called:
 - (a) mulch
 - (b) litter
 - (c) compost
 - (d) None of these
- (xii) Essential oil is a product from some tree leaves, it is called so due to:
 - (a) its market value
 - (b) essence
 - (c) necessarily presence in leaves
 - (d) None of these
- (xiii) Pheromones are synthetic chemicals used:
 - (a) to enhance cross pollination in vegetation
 - (b) to attract insect to kill them
 - (c) to regulate growth
 - (d) None of these

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- (xiv) The loss of water through stomata of leaves is called:
 - (a) evaporation
 - (b) throughfall
 - (c) transpiration
 - (d) stomatal conductance
 - (e) None of these
- (xv) The downward movement of water within the soil profile is called:
 - (a) infiltration
 - (b) leaching
 - (c) percolation
 - (d) None of these
- (xvi) To catch rainfall, hold runoff in a natural stream, divert into adjoining fields downstream and use for the production of forage, is called:
 - (a) water harvesting
 - (b) water spreading
 - (c) erosion control
 - (d) None of these
- (xvii) To leave the range unit ungrazed until after seed maturity so that the better forage plants can build vigor, set seed and thus improve the stand. This system of grazing is called:
 - (a) nomadic grazing system
 - (b) rotational grazing system
 - (c) deferred grazing system
 - (d) All of these
 - (e) None of these
- (xviii) A long period of time without effective rainfall is known as:
 - (a) aridity
 - (b) drought
 - (c) famine
 - (d) None of these
- (xix) Logging and sawmilling corporation is present in:
 - (a) AJK
 - (b) Baluchistan
 - (c) N.W.F.P.
 - (d) All provinces
 - (e) None of these
- (xx) The animal considered very dangerous in forests and watershed region is:
 - (a) goat
 - (b) buffalo
 - (c) camel
 - (d) cow
 - (e) None of these

PART – II

NOTE:	<p>(i) PART-II is to be attempted on the separate Answer Book.</p> <p>(ii) Attempt ONLY FOUR questions from PART-II. All questions carry EQUAL marks.</p> <p>(iii) Extra attempt of any question or any part of the attempted question will not be considered.</p>
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- Q.2.** What silvicultural practices are important for improved growth, at what stage and how various environmental factors help/affect those practices? (20)
- Q.3.** Define research. What is the importance of experimental design in research? Write the main components of a research paper. (20)
- Q.4.** What is sustainability? What risk factors are involved in long term forestry projects? (20)
- Q.5.** Differentiate between catchment and watershed. How the rangelands in watershed region can be managed to ensure increased quantity and improved quality of water in Pakistan? (20)
- Q.6.** What are transect and quadrat methods of vegetation survey and what is their usefulness and application? (20)
- Q.7.** How wildlife play its role in propagation and conservation of vegetation species? What are essential features of wildlife sanctuaries? (20)
- Q.8.** Write a short note on **ANY FOUR** of the following: (20)
 - (i) Phytoremediation
 - (ii) Bioengineering
 - (iii) Green house effect
 - (iv) Forest and plantation
 - (v) Noise pollution and trees
 - (vi) Carbon sequestration
 - (vii) Natural heritage
 - (viii) Environmental hazards
