

**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS
IN BPS – 17 UNDER THE FEDERAL GOVERNMENT, 2007.**

FORESTRY

TIME ALLOWED: THREE HOURS MAXIMUM MARKS:100

NOTE: (i) Attempt FIVE questions in all including question No. 8 which is compulsory. All questions carry EQUAL marks.

(ii) Extra attempt of any question or any part of the attempted question will not be considered

(iii) Candidate must draw two straight lines (=====) at the end to separate each question attempted in Answer Books.

1. Justify existence of Irrigated Plantations in view of decreasing land and water resources.
2. Define Forest Ecosystem. Discuss critically threatened ecosystems of Pakistan.
3. Define Forest Increment/Growth. What is the need for information on Increment? Describe Stand Table Projection Method to predict Increment of a Forest Stand.
4. Differentiate between Rotation and Exploitable Age. Describe factors which determine the length of Rotation period.
5. Heavy grazing and other factors have resulted in the loss of valuable natural vegetation in the Cholistan desert. Suggest measures that you would take to improve Range land for increasing forage production.
6. Describe Tidal Swamp Forest with respect to its distribution, locality factors and floristic composition. Give botanical names of major species of this forest.
7. Write short notes on any Five of the following:
 - (a) Grazing Capacity
 - (b) Proper Use Factor
 - (c) Meiosis
 - (d) Chlorophyll Cells
 - (e) Standard Deviation
 - (f) PH
 - (g) Plane Tabling
 - (h) Vegetative Reproduction

COMPULSORY QUESTION

8. Write only correct answer in the Answer Book. Do not reproduce the question.

(1) National animal is designated by the technical name of:

- (a) Capra falconeri
- (b) Antelop carvicapra
- (c) Panther tigris
- (d) None of these

(2) Gum Arabic is obtained from:

- (a) Acacia modesta
- (b) Acacia catechu
- (c) Acacia nilotica
- (d) None of these

(3) World Wide Fund for Nature-Pakistan is located in:

- (a) Peshawar
- (b) Karachi
- (c) Lahore
- (d) None of these

(4) In 1973, Pakistan signed the following Convention dealing with threatened species of wild flora and fauna:

- (a) CMS
- (b) CCC
- (c) CITES
- (d) None of these

(5) One of the most important minor forest produce is “Lac” which is obtained from the secretion of:

- (a) Trees
- (b) Animals
- (c) Insects
- (d) None of these

(6) International Union for Conservation of Nature and Natural Resources-Pakistan is located in:

- (a) Islamabad
- (b) Lahore
- (c) Karachi
- (d) None of these

(7) Pakistan Environmental Protection Act was promulgated in:

- (a) 1990
- (b) 1995
- (c) 1997
- (d) None of these

(8) Periodic Annual Increment of Trees is the average increment of:

- (a) 3 years
- (b) 5 years
- (c) 8 years
- (d) None of these

(9) Von Mantel formula is designated by:

- (a) $Y_a = V/P$
- (b) $Y_a = V^{1/2}/P$
- (c) $Y_a = Va/R$
- (d) None of these

(10) Machiara National Park is located in:

- (a) NWFP
- (b) AJK
- (c) Balochistan
- (d) None of these

(11) One of the major parts on *Dalbergia sissoo* is:

- (a) *Euproctis lunata*
- (b) *Tonica niviferana*
- (c) *Plecoptera reflexa*
- (d) None of these

(12) Seedling is a stage of tree development when it reaches a height of:

- (a) One feet
- (b) Two feet
- (c) Three feet
- (d) None of these

(13) Distribution of *Acacia nilotica* in southern parts of Pakistan is restricted mainly due to:

- (a) Low rainfall
- (b) High temperature
- (c) Frost
- (d) None of these

(14) Upward Movement in organic compounds in plants occur through:

- (a) Phloem
- (b) Cortex
- (c) Xylem
- (d) None of these

(15) In irrigated plantations, the area between a cross road and a khal is termed as:

- (a) Compartment road
- (b) Compartment area
- (c) Center
- (d) None of these

(16) Commercial “Resin” is obtained from:

- (a) *Pinus wallichiana*
- (b) *Pinus radiata*
- (c) *Pinus roxburghii*
- (d) None of these

(17) Pole is a stage of tree development characterized by rate of increase in height:

- (a) Begins to fall
- (b) Begins to rise
- (c) Remains static
- (d) None of these

(18) In many trees of temperate climate, Mycorrhiza is present in:

- (a) Cones
- (b) Needles
- (c) Roots
- (d) None of these

(19) Volume of an irregular wood can be measured by:

- (a) Pedometer
- (b) Xylometer
- (c) Odometer
- (d) None of these

(20) Subtropical broadleaved hill forests are characterized by species:

- (a) *Populus ciliate* and *Aesculus*
- (b) *Proopis cineraria* and *Dalbergia sissoo*
- (c) *Acacia modesta* and *Olea feruginea*
- (d) None of these