

FEDERAL PUBLIC SERVICE COMMISSION

COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN PBS-17, UNDER THE FEDERAL GOVERNMENT, 2003

FORESTRY

TIME ALLOWED: THREE HOURS

MAXIMUM MARKS: 100

NOTE: Attempt FIVE questions in all, including QUESTION NO.8 which is COMPULSORY. All questions carry EQUAL marks. Write clearly.

- 1. Briefly describe the following: (A) Uniform Shelterwood System, (B) Normal Forest, (C) Multiple use Trees, (D) Mimicry.
2. Define the following terms: (A) Cause way, (B) Game Reserve, (C) Random Sampling, (D) Mensuration, (E) Behavioural Adaptations of Trees, (F) Chain Survey, (G) Radio Frequency - Vacuum Seasoning, (H) Laminated Wood Products, (I) Tethered Grazing, (J) Forest Policy.
3. What is meant by "Biological Diversity"? What are its various aspects? Why has it gained more importance recently? How will you promote and conserve it?
4. (A) How can Agro forestry invigorate our ailing Farming Systems? (B) How can Forestry come to the rescue of our degraded environment?
5. (A) Compare natural and artificial regeneration of forests. Indicate latest developments and trends. (B) What is meant by Forest Thinning? What is its silvicultural and economic importance.
6. (A) What are the prospects of enhancing recharge of under ground water reserves in various valleys of Balochistan? What line of action will you propose? (B) How should Government of Pakistan proceed to establish and promote Commercial Ranching in high potential sub-humid regions of the country?
7. Write notes on the following: (A) Fundamentals of Wildlife and National Park Management, (B) Major hazards to Pakistan's forests, (C) Management Tables for Farm Grown Trees, (D) Compare roles of PFI and of Agricultural Universities in popularizing forestry education and forestry consciousness in the country.

COMPULSORY QUESTION

- 8. Write only the correct answer in the Answer Book. Do not reproduce the question. (1) A forest land is one which is: (a) Already supporting forest, (b) Notified by Govt. for growing trees, (c) Class V, VI land, (d) Class VII land, (e) (a), (b) and (c), (f) None of these.

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- (2) Farm trees in Pakistan cover an area roughly equivalent to ---- of the area of the country:
- (a) 0.1% (b) 0.5%  
(c) 2.0% (d) 2.5%  
(e) 5.0% (f) None of these.
- (3) Pakistan cannot achieve desired 25% of its area under forest because:
- (a) We don't have necessary commitment, will power and sincerity.  
(b) We don't have enough funds and irrigation water.  
(c) We don't have suitable sites.  
(d) We don't have target-oriented forest policy.  
(e) (b), (c) and (d).  
(f) None of these.
- (4) Out of total range area of Pakistan, how much is of moderate to high potential?
- (a) Two - Third. (b) Half  
(c) One - Third. (d) One - tenth.  
(e) Insignificant. (f) None of these.
- (5) Is it ecologically feasible and sound to graze live stock in a forest?
- (a) No, never.  
(b) No, not in general but only occasionally and lightly.  
(c) Yes, always, everywhere in the forest, as much as desired.  
(d) Yes, everywhere in the forest but within its capacity.  
(e) Yes, but by excluding regeneration area and within the capacity of the forest.
- (6) Pakistan's grazing area is:
- (a) All season grass lands.  
(b) Seasonal grass lands.  
(c) Seasonal grass lands having few bushes and shrubs.  
(d) Seasonal having grass-like vegetation and a few tall trees.  
(e) Perennial bush plus shrub lands having seasonal grass cover.  
(f) None of these.
- (7) Radius of a tree bole is determined by:
- (a)  $\text{diameter} \div 3.142$  (b)  $(\text{girth} \div 3.142) \times 2$   
(c)  $(\text{girth} \times 3.142) \div 2$  (d)  $\text{diameter} \div 2$   
(e)  $\text{diameter} \times 3.142$  (f) None of these.
- (8) Which forest is most endangered in terms of having poor regeneration?
- (a) Fir forest (b) Deodar forest  
(c) Kao-Phulai forest (d) Juniper forest  
(e) Chilgoza forest. (f) None of these.
- (9) In mechanical thinnings, at the time of selecting trees:
- (a) quality of all trees is judged.  
(b) Quality of individual trees is not judged at all.  
(c) Quality of only those trees is judged which are to be removed.  
(d) Quality of only those trees is judged which are to be retained.  
(e) Only density of trees is considered.  
(f) None of these.
- (10) Pruning of branches:
- (a) Is must for all forest trees.  
(b) Is required for fuel trees to some extent.  
(c) Produces timber which is completely free from knots.  
(d) Slows down growth rate of trees significantly.  
(e) Is carried out for selected trees and it significantly reduces number and size of knots.  
(f) None of these.
- (11) With regards to management of range vegetation, which one of the following is most important in Pakistan:
- (a) Even grazing.  
(b) Appropriate grazing system.  
(c) Grazing according to carrying capacity.  
(d) Grazing season.  
(e) Grazing intensity.  
(f) None of these.

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- (12) Regarding range livestock management which operation is most important in Pakistan?
  - (a) Regular cutting, timely harvesting and efficient sale.
  - (b) Providing supplemental feed.
  - (c) Protection from parasites and predators.
  - (d) Providing shelter against extreme weather.
  - (e) Providing clean drinking water; cold in summer and warm in winter.
  - (f) None of these.
- (13) In Selection – wood Silvicultural System:
  - (a) Felling of mature trees is carried out at the end of rotation in regeneration block only; felling of immature trees is carried out in the rest of the blocks as and when required.
  - (b) Felling of mature as well as immature trees is carried out over the entire forest either every year or every alternate year.
  - (c) Felling of only mature trees is carried out in the entire forest after every 10 years.
  - (d) Basis of felling is the forest area rather than diameter size of the mature trees.
  - (e) Forest eventually gets developed into a two – storey high forest.
  - (f) None of these.
- (14) Which one of the following Silvicultural Operation is must in an irrigated coppice forest established for producing small logs for fuel, pulp, posts, props etc.?
  - (a) thinning      (b) pruning      (c) weeding
  - (d) irrigation      (e) staking      (f) None of these.
- (15) Sustained yield of a forest is possible when:
  - (a) annual cut is equal to annual increment
  - (b) annual cut is less than annual growth
  - (c) annual harvest is more than annual increment
  - (d) growing stock is normal
  - (e) Both (a) and (d).      (f) None of these.
- (16) A tree bole grows in diameter at:
  - (a) Collar Zone      (b) heart wood zone      (c) pith
  - (d) layer of cells lying in between xylem and phloem      (e) Crown
  - (f) None of these.
- (17) Forest yield can be increased on sustained basis by:
  - (a) Increasing annual cut      (b) Increasing annual inputs
  - (c) Optimising tree crop density
  - (d) Ensuring that growing stock is healthy and normal.
  - (e) (b), (c) and (d).      (f) None of these.
- (18) Survival of a new tree species in any locality can be predicted if the values of its required environmental parameters are:
  - (a) Just above minimum and just below maximum.
  - (b) At exact middle point between minimum and maximum.
  - (c) Optimum.
  - (d) Mid point between optimum and maximum.
  - (e) Mid point between minimum and optimum values of the locality.
  - (f) None of these.
- (19) If you come across a forest which comprises of one tree species, it strongly suggests that a severe:
  - (a) Climatic stress is there.      (b) Human intervention is there.
  - (c) Edaphic constraints are there.      (d) Biotic interference is there.
  - (e) Effect of any one of above or of any combination is there.
  - (f) None of these.
- (20) If you see a vast dense forest of mature trees without any regeneration, it indicates:
  - (a) Gross neglect by management over a long period.
  - (b) Serious climatic limitations.      (c) Severe biotic problems.
  - (d) Severe edaphic problems.
  - (e) Any one of above problem or any combination thereof.
  - (f) None of these.

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