

FEDERAL PUBLIC SERVICE COMMISSION



COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2013

BOTANY, PAPER-I

TIME ALLOWED:	(PART-I MCQs) 30 MINUTES	MAXIMUM MARKS: 20
THREE HOURS	(PART-II) 2 HOURS & 30 MINUTES	MAXIMUM MARKS: 80
NOTE: (i) First attempt PART-I (MCQs) on separate OMR Answer Sheet which shall be taken back after 30 minutes.		
(ii) Overwriting/cutting of the options/answers will not be given credit.		

PART-I ((MCQs) (COMPULSORY))

Q.1. (i) Select the best option/answer and fill in the appropriate Circle ● on the OMR Answer Sheet. (20x1=20)
(ii) Answers given anywhere, other than OMR Answer Sheet, shall not be considered.

- Epidermal tissue act generally as:
(a) Protective tissue (b) Absorbing tissue (c) Photosynthetic tissue
(d) Conducting tissue (e) None of these
- Alternate name of Family Apiaceae is:
(a) Lamiaceae (b) Labiatae (c) Umbelliferae (d) Graminae (e) None of these
- When Stamens are numerous and attached to Corolla, this condition is known as:
(a) Polyandrous and Epipetalous (b) Syngenious (c) Monadelphous (d) None of these
- Which of these is not green Algae?
(a) Volvox (b) Chlorella (c) Ulothrix (d) Nostoc (e) None of these
- In Rhizopus Sexual reproduction is:
(a) Anisogamous (b) Oogamous (c) Conjugation (d) None of these
- During germination nucleus of zygospore of Rhizopus first undergoes:
(a) Mitosis (b) Meiosis (c) Amitosis (d) Binary fission (e) None of these
- Which of the followings possesses both animal and plant characters?
(a) Stigeocloneum (b) Euglena (c) Chlamydomonas (d) Ulva (e) None of these
- Rhynia belongs to group of:
(a) Desert plants (b) Aquatic plants (c) Alpine plants (d) Fossil plants (e) None of these
- The main plant in Selaginella is a:
(a) Sporophyte (b) Gametophyte (c) Epiphyte (d) Thallophyte (e) None of these
- Pinus lacks which one of the following:
(a) True flower (b) Male cones only (c) Female cones only
(d) Both male and female cones (e) None of these
- Interaction between Algae and Fungi is called:
(a) Parasitism (b) Mutualism (c) Commensalism (d) Amensalism (e) None of these
- The plant cell without nuclei are found in:
(a) Cambium (b) Root hairs (c) Companion cells (d) Vessel elements (e) None of these

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13. Which of the following is rapid type of absorption?
(a) Passive absorption (b) Active absorption (c) Salt absorption
(d) Root tip absorption (e) None of these
14. Water is absorbed through the root hairs by means of:
(a) Respiration (b) Turgor pressure (c) Transpiration (d) Osmosis (e) None of these
15. The tissue responsible for translocation of food material is:
(a) Vessels (b) Sieve tubes (c) Parenchyma (d) Fibers (e) None of these
16. Red colour of Red Algae is due to the presence of:
(a) Neoxanthin (b) Phycoerythrin (c) Carotene-B (d) Fucoxanthin (e) None of these
17. The presence of lignin in cell wall is characteristic feature of:
(a) Woody tissue (b) Phloem (c) Soft tissue (d) Cortex (e) None of these
18. In which of the following plants does the stem perform the function of Storage and Perennation?
(a) Ground nut (b) Ginger (c) Wheat (d) Radish (e) None of these
19. Common method of producing new varieties of Roses is:
(a) Cutting (b) Budding (c) Grafting (d) Layering (e) None of these
20. A branched Raceme is called:
(a) Corymb (b) Panicle (c) Spike (d) Catkin (e) None of these

PART-II

- NOTE:** (i) **Part-II** is to be attempted on the separate **Answer Book**.
(ii) Candidate must write **Q. No.** in the **Answer Book** in accordance with **Q. No.** in the **Q. Paper**.
(iii) **Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks.**
(iv) Extra attempt of any question or any part of the attempted question will not be considered.

- Q. No.2.** Discuss evolutionary trends in Bryophytes with special reference to development of spores and associated structure. (20)
- Q. No.3.** What are "FUNGI"? How they are different from plants? Explain industrial applications of "FUNGI". (20)
- Q. No.4.** Write a detailed account on the development of ENDOSPERM in plants. (20)
- Q. No.5.** What is SPECIATION? Explain modern trends in Plant Systematics. (20)
- Q. No.6.** Why ALGAE are known as THALLOPHYTES? Give economic importance of ALGAE. (20)
- Q. No.7.** Write critical notes on MICROSPOROGENESIS and MEGASPOROGENESIS. (20)
- Q. No.8.** Write notes on any TWO of the followings: (10 each) (20)
(a) Chemotaxonomy
(b) Evolutionary tendencies in Gymnosperms.
(c) Normal and Abnormal Secondary Growth.
