



FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BPS-17 UNDER
THE FEDERAL GOVERNMENT, 2000

| |
|--------------------|
| <u>Roll Number</u> |
|--------------------|

GENERAL KNOWLEDGE PAPER-I
EVERY DAY SCIENCE

TIME ALLOWED: 100 MINUTES.....Maximum Marks: 50

NOTE:

- (i) Attempt ONLY FIVE questions. All questions carry EQUAL marks.**
- (ii) Extra attempt of any question or any part of the attempted question will not be considered.**

Q1. Write comprehensive notes on any TWO of the following: (5,5)

- (a) Contribution of Muslim scientists in the field of biology.
- (b) Water pollution.
- (c) Semiconductors.

Q2. Describe the various type of movements of the earth? What are the effects of these movements? Draw simple diagrams to illustrate your answer. (4,6)

Q3. Explain the following using suitable examples. (2 each)

- (a) Feedback mechanism of human system.
- (b) Eco-system
- (c) Troposphere
- (d) Carbon cycle
- (e) Meningitis

4. What is excretion? Name the excretory organs in man. Describe the structure and function of human kidney for the excretion of urine. (1,2,7)

Q5. Describe the Principle, construction and working of a telephone? (2,4,4)

Q6. What are latitudes and longitudes? How can the central line of latitude be used to find the location of a place? (4,6)



7. Differentiate between:

- (a) Cardiac Muscles and Skeletal Muscles.
- (b) Haze and Smog.
- (c) Enzyme and Hormone.
- (d) Sedimentary Rocks and Igneous Rocks.
- (e) Producers and Consumers.

8. Define the following terms: (1 each)

- (a) RAM
- (b) Byte
- (c) Mouse
- (d) Icons
- (e) Software
- (f) Control Unit
- (g) LAN
- (h) Modem
- (i) ALU
- (j) Registers.

Q9. Discuss the structure of a typical animal cell in detail. 10)

Q10. Fill in the blanks with appropriate words: (1 each)

- (a) Monomer of proteins are _____.
- (b) Water transport in plants occurs within _____.
- (c) Underground horizontal stems are called _____.
- (d) In the eye, only _____ contain receptors for light energy.
- (e) Plant _____ control plant responses to environmental stimuli.
- (f) _____ are often called the power houses of the cell.
- (g) The rate at which a current changes direction is called its _____.
- (h) The energy of electrons at the negative terminal of a battery is called _____.
- (i) _____ is the smallest planet of the solar system.
- (j) Diamond is an allotropic form of the element _____.

Q11. Which are plastics? Name their different types and processes by which they are manufactured. Discuss the impact of the use of plastics on the environment.

Q12. Which of the following statements are False and which are True: (1 each)

- (a) In the circulatory system two pulmonary arteries take blood from the left ventricle to the lungs.
- (b) Anaphase is the stage of mitosis during which the daughter chromosomes move towards the poles.
- (c) The Motor neurons carry nerve impulses from the central nervous system to the effectors.
- (d) Cochlea is a part of the middle ear.

- (e) Tides happen due to the moon's gravitational pull.
- (f) Heavy water contains salts of Calcium and Magnesium.
- (g) All non-metals exist in gaseous state.
- (h) A parachute can be used by a spaceman to help in landing on the moon.
- (i) The gemstones Ruby and sapphires are composed of Aluminum Oxide.
- (j) In a chemical battery chemical energy ions directly converted into mechanical energy.

Q13. Choose the correct answers. Don't reproduce the questions. (1 each)

(i) Speed of the wind is measured by:

- (a) Barometer (b) Hygrometer (c) perimeter
- (d) Anemometer (e) None of these.

(ii) _____ connects the muscle with the bone.

- (a) Cartilage (b) Ligament (c) Tendon (d) Disc (e) None of these.

(iii) Polio is caused by a:

- (a) Bacterial (b) Virus (c) Fungus (d) Deficiency of vitamin (e) none of these.

(iv) The coldest planet of the solar system is:

- (a) Earth (b) Venus (c) Mars (d) Pluto (e) None of these

(v) _____ is a vitamin:

- (a) Citric acid (b) Tartaric acid (c) Ascorbic acid (d) Acetic acid (d) none of there

(vi) An eggshell is composed of:

- (a) Iron (b) Starch (c) Carbon (d) Protein (e) None of these.

(vii) The most abundant element in the earth's crust is:

- (a) Nitrogen (b) Silicon (c) Carbon (d) Oxygen (e) None of these

(viii) The main constituent of Biogas is:

- (a) Methane (b) Hydrogen (c) Oxygen (d) Carbon dioxide (e) None of these.

(ix) Stalagmites are deposits of :

- (a) Calcium oxide (b) Calcium sulphate (c) Calcium hydroxide (d) Calcium carbonate (e) Mixture of all salts.



(x) Gigantism is the result of:

(a) Hypothyroidism (b) Recessive gene (c) Hyper pituitarism (d) Vitamin D deficiency (e) None of these.

Q14. What are the causes of Earthquakes: How have earthquakes helped in deciphering the internal structure of the earth? (4,6)

Q15. What is the endocrine system? Write the names and function of any eight endocrine glands. (2,8)