



FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BPS-17 UNDER
THE FEDERAL GOVERNMENT, 2002

<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.

Q.1 Write short notes on any two of the following : 5 each

a. Acid Rain b. pesticides c endocrine system

Q.2 Differentiate between any five of the following pairs : (2 each)

- (a) rotation and revolution of earth
- (b) monocot and dicot plants
- (c) pollination and fertilization d umbra and penumbra
- (e) nucleus and nucleolus e heavy water and hard water

Q.3 Draw a labeled diagram of human eye, indicating all essential parts, discuss its working (5,5)

Q.4 Fill in the blanks with suitable words : (1 each)

- a. Heavenly objects, which resembles stars and emit radio waves are called _ _ _ _
- b. _ _ _ are hot springs that erupt hot water and steam from time to time
- c. Hot liquid rock beneath the earth's surface is called _ _ _ _
- d. The first simply microscope was invented by _ _ _ _
- e. _ _ _ _ is the power house of the cell
- f. Ability of the air to absorb long heat waves from the earth after allowing the short waves from sun to pass through it is known as _ _ _ _
- g. Computer works on the principle introduced by the Muslim scientist _ _ _ _
- h. Coldest planet of the solar system is _ _ _ _
- i. The rupture of red blood cells is called _ _ _ _
- j. Muslim Scientist Ali ibn Al Tabari is famous for his work on _ _ _ _



Q.5 What is the solar system ? Indicate the position of planet pluto in it. State the characteristics that classify it as : (5,1,4)

- (A) A planet
- (B) An asteroid

Q.6 which quantities are measured by the following SI units : (1 each)

- a. Watt
- b. Coulomb
- c. Pascal
- d. Ohm
- e. Kelvin
- f. Joule
- g. meter
- h. Farady
- i. Hertz
- j. Ampere

Q.7 What are minerals ? For most of the part minerals are constituted of eight elements, name any six of them. State the six characteristics that are used to identify minerals

Q.8 Define any five of the following terms using suitable examples :

- a. Polymerization
- b. Ecosystem
- c. Antibiotics
- d. Renewable energy resources
- e. Gene
- f. Software

Q.9 what do you understand by the term “Balanced Diet ? What are its essential constituents ? state the function of each constituent (2,3,5)

Q.10 Which of the following statements are true and which are false (1 each)

- a. Haploid cells result from the process of mitosis
- b. All stars are of the same colour
- c. The left lung has two lobes while the right lung has three lobes
- d. The pulmonary veins return oxygenated blood to the right atrium
- e. Muslim Scientist Ibn Haitham is famous for his work on planets
- f. Our galaxy milky way is shaped like a large thick concave lens with a large central bulge
- g. DNA has a double helix structure while the RNA does not have a double helix structure
- h. The normal temperature of Human Blood is 37 c (98.6 F)
- i. The liver is a part of gastrointestinal tract
- j. Movement of tectonic plates may cause eruption of a volcano



Q.11 What do the following scientific abbreviations stand for ? (1 each)

- a. LASER
- b. RADAR
- c. LPG
- d. PVC
- e. CFC
- f. AIDS
- g. ROM
- h. LAN
- i. WWW
- j. DNA

Q.12 Give brief scientific reasons for any five of the following statements : (2 each)

- a. Lunar eclipse lasts much longer than solar eclipse
- b. Goiter is common in people living in hilly areas
- c. Mixture of ice and salt (sodium chloride) is used as a freezing mixture
- d. Detergents are better cleaning agents compared to soap
- e. Decomposers are important for life on land and water
- f. Places near the sea are cooler in summer and warmer in winter than places farther inland

Q.13 Name (1 each)

- a. A disease caused by deficiency of vitamin C
- b. The major fossil fuel impurity
- c. The instrument used to measure degree of humidity
- d. An ore of Zinc
- e. Two most abundant elements present in the sun
- f. The metal atom present in chlorophyll
- g. The gland responsible for the secretion of the hormone estrogen
- h. An element used in the doping of silicon for the preparation of a p-type semiconductor
- i. A synthetic fibre which is a polyamide
- j. Major constituent of Biogas

Q.14 What are fertilizers ? what do you understand by the term NPK fertilizer ? How do fertilizers contribute to water pollution ? (3,1,6)

Q.15 Choose the one alternative the best completes the statement or answer the question (1 each)

- 1). Glycogen is an example of
- a. Carbohydrate
 - b. Peptide
 - c. Lipid d steroids



2). The cell structure that controls movements of material into and out of the cell is the

- a) mitochondria
- b) cell membrane
- c) Centriole
- d) golgi body

3). The unit that co-ordinates different devices of the computer system is

- a. ALU
- b. register
- c. control unit
- d. logical instructions

4). _____ manages and controls various functions of the computer

- a. in put/out put device
- b. main memory
- c. operating system
- d. both a & b

5). The number of natural satellite orbiting around the planet Mars is

- a. 1
- b. 2
- c. 5
- d. 14

6). _____ is an example of mechanical digestion

- a. glycolysis
- b. hydrolysis
- c. Mastication
- d. defecation

7) Botanically a fruit is a/an

- a. ripened ovule
- b..mature stigma
- c. ripened ovary
- d. fully mature flowering stalk

8). The vocal folds are part of the

- a. nasal cavity
- b. larynx
- c. trachea
- d. laryngopharyn



9). Blood glucose is raised by all of the following except

- a. glycogen
- b. insulin
- c. cortisol
- d. epinephrine

10. The famous book Al-Qanoon was written by the Muslim scientist

- a. Jabir-ibn-Ha

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