

GENERAL KNOWLEDGE PAPER-I



FEDERAL PUBLIC SERVICE COMMISSION

**COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BPS-17 UNDER
THE FEDERAL GOVERNMENT, 2010**

**GENERAL KNOWLEDGE PAPER-I
(EVERY DAY SCIENCE)**

TIME ALLOWED:	(PART-I) 80 MINUTES	MAXIMUM MARKS:50
	(PART-II) 100 MINUTES	MAXIMUM MARKS:50

- NOTE:**
- (i) First attempt PART-I (MCQ) on separate Answer Sheet which shall be taken back after 80 minutes.
 - (ii) Overwriting/cutting of the options/answers will not be given credit.

**PART – I (MCQs)
(COMPULSORY)**

Q.1. Select the best option/answer and fill in the appropriate Box on the Answer Sheet: (50)

- (1) Water is heated in a kettle. The inside water is heated by convection. A person sitting near the fire receives heat by.
(a) Conduction (b) Convection (c) Radiation (d) Reflection (e) None of these
- (2) A time can come when we will be able to design a machine which can go on working for ever without the expenditure of energy. Is it possible?
(a) No (b) Yes (c) In due course of time (d) Very soon (e) None of these
- (3) The measurement of rainfall is made by an instrument known as:
(a) Hygrometer (b) Barometer (c) Hydrometer (d) Pedometer (e) None of these
- (4) Light year is a unit of:
(a) Distance (b) Time period (c) Light intensity (d) Time (e) None of these
- (5) Three elements needed for the healthy growth of plants are:
(a) N, P, K (b) N, C, P (c) N, K, C (d) N, S, P (e) None of these
- (6) Copper can be converted into gold by:
(a) Heating (b) Artificial Radioactivity (c) Electroplating (d) Chemical Reaction (e) None of these
- (7) In winter an iron pipe feels colder than a wooden window. This is because wood is:
(a) Conductor (b) Non-Conductor (c) Semi-Conductor (d) Not a solid while iron is a solid (e) None of these
- (8) The echo(reflected sound) will be distinctly heard only at ordinary temperatures if the distance of the reflecting surfaces from the source of sound is at least:
(a) 1120 ft (b) 120 ft (c) 56 ft (d) 100 ft (e) None of these
- (9) It is possible to recognize a person in the dark by simply hearing his unique voice. It is because of the:
(a) Pitch (b) Frequency (c) Time period (d) Quality (e) None of these
- (10) When a ray of sunlight enters a dark room, its straight path becomes visible because of dust particles hanging in the air. It is because light is:
(a) Visible (b) Transparent (c) Invisible (d) Opaque (e) None of these
- (11) A six feet tall lady wants to see her full image in a plane mirror. The minimum length of the mirror will be:
(a) 6 feet (b) 12 feet (c) 4 feet (d) 3 feet (e) None of these
- (12) The principle used in radar is the same as that of Sonar. In radar we use radio waves; whereas in Sonar we use:
(a) Red Waves (b) Infrared Waves (c) Ultrasonic (d) Supersonic (e) None of these

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- (13) In a fission nuclear reaction, a heavy nucleus breaks up into smaller nuclei whereas in fusion nuclear reaction two or more than two possibly nuclei are fused to form a heavy nucleus. Fusion nuclear reaction is called:
 (a) Chemical Reaction (b) Nuclear Reaction (c) Fission nuclear reaction
 (d) Fusion nuclear reaction (e) None of these
- (14) Parsec is a unit of:
 (a) Energy (b) Time (c) Power (d) Distance (e) None of these
- (15) German Silver is an alloy of:
 (a) Zn + Ni (b) Cu + Zn (c) Cu + Ni (d) Cu + Sn (e) None of these
- (16) The Continent Antarctica lies at the:
 (a) North pole (b) South pole (c) Middle of the earth (d) Equator (e) None of these
- (17) The temperature of the dead body is:
 (a) 0°C (b) 37°C (c) room temperature
 (d) temperature of the place where it is kept (e) None of these
- (18) Lactometer is a type of hydrometer which is used to measure the specific gravity of:
 (a) Honey (b) Water (c) Milk (d) Olive Oil (e) None of these
- (19) Cusec is a unit of:
 (a) Area (b) Time (c) Distance (d) Mass (e) None of these
- (20) The deepest place on earth is:
 (a) Trench (b) Mariana Trench (c) Mangrove (d) Groove (e) None of these
- (21) Twinkling of stars is caused by the:
 (a) Reflection of light (b) Polarization of light (c) Refraction of light
 (d) Interference of light (e) None of these
- (22) Magnifying power of a simple microscope can be increased by:
 (a) Increasing focal length of the lens (b) Decreasing focal length of the lens
 (c) Lens of large aperture (d) Lens of short aperture (e) None of these
- (23) Bronze medal is made up of metals:
 (a) Copper, Nickel (b) Copper, Tin (c) Copper, Silver (d) Copper, Zinc (e) None of these
- (24) One of the countries through which equator passes is:
 (a) Kenya (b) Pakistan (c) Malaysia (d) Malta (e) None of these
- (25) A very important practical application of properties of matter is hoeing or "godhi" practiced by the farmers. This property of matter is called:
 (a) Elasticity (b) Stress (c) Capillarity (d) Strain (e) None of these
- (26) It is observed that the total pressure exerted by air on the man of average size is around 14.7 lb wt. per square inch. But the man feels quite comfortable. It is because:
 (a) An equal and opposite pressure acts from inside (b) of the height of a man
 (c) of gravity (d) Earth pulls the man upward (e) None of these
- (27) A nuclear reactor is a device used to carry out controlled nuclear reaction whereas GM counter is a device used to detect:
 (a) Current (b) Voltage (c) Nuclear Radiation (d) Power (e) None of these
- (28) A body can escape the gravitational pull of the earth if it is thrown up with a velocity of:
 (a) 25 miles/sec (b) 60 miles/sec (c) 7 miles/sec (d) 10 miles/sec (e) None of these
- (29) Night vision is possible with the help of:
 (a) Red Light (b) Violet Light (c) Infrared Light (d) Ultraviolet Light (e) None of these

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- (30) Myopia is a defect of human eye. It can be corrected by using a lens called:
 (a) Convex Lens (b) Concave Lens (c) Cylindrical Lens (d) Plano convex lens
 (e) None of these
- (31) Walnuts can be broken in the hand by squeezing two together but not one. It is because of:
 (a) Work done (b) Power (c) Energy (d) Volume (e) None of these
- (32) The instrument which is specially designed for recording earthquake wave is called seismograph which measures earthquake waves on a:
 (a) Diatonic Scale (b) Fahrenheit Scale (c) Richter Scale (d) Celsius Scale (e) None of these
- (33) The planet Mercury completes one rotation around the sun in:
 (a) 88 days (b) 365 days (c) 98 days (d) 60 days (e) None of these
- (34) Fossils found in the lowest geological strata are generally the most:
 (a) Advanced (b) Complex (c) Primitive (d) Specialized (e) None of these
- (35) Evolution can be described as:
 (a) A continuing process (b) A catastrophic event in the past (c) Static
 (d) The attaining of an ideal type (e) None of these
- (36) What is the only source of new alleles?
 (a) Crossing over (b) Independent assortment (c) Mutation
 (d) Fertilization (e) None of these
- (37) Polygenic characteristics are controlled by:
 (a) Dominant genes (b) Recessive genes (c) Multiple genes
 (d) Mutated genes (e) None of these
- (38) Which of the following, lists the four stages of food processing in order?
 (a) Ingestion, digestion, absorption, elimination
 (b) Digestion, ingestion, absorption, elimination
 (c) Ingestion, absorption, elimination, digestion
 (d) Absorption, digestion, ingestion, elimination
 (e) None of these
- (39) In humans, most nutrient molecules are absorbed by the:
 (a) Stomach (b) Liver (c) Small intestine (d) Large intestine (e) None of these
- (40) The energy needed to fuel essential body processes is called:
 (a) Essential nutrient level (b) Basal Metabolism (c) Recommended daily allowance
 (d) Optimum energy intake (e) None of these
- (41) Which of the following is an organic molecule needed by the body in small amounts?
 (a) Protein (b) Vitamin C (c) Zinc (d) Monosaccharide (e) None of these
- (42) Inhaled air passes through which of the following in the last?
 (a) Bronchiole (b) Larynx (c) Pharynx (d) Trachea (e) None of these
- (43) Which of the following is a form of sexual reproduction?
 (a) Hermaphroditism (b) Fission (c) Fragmentation (d) Budding (e) None of these
- (44) Cobalt is a material which is:
 (a) Strongly attracted by a magnet (b) Not attracted by a magnet (c) Not a magnet
 (d) Weakly attracted by a magnet (e) None of these
- (45) Laughing gas has chemical composition of the following two elements which are:
 (a) Nitrogen + Hydrogen (b) Nitrogen + Carbon (c) Nitrogen + Oxygen
 (d) Oxygen + Carbon (e) None of these

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- (46) Hepatitis A is transmitted to different individuals by:
 (a) Water (b) Sneezing (c) Spit (d) Faeces (e) None of these
- (47) The unit that coordinates different devices of the computer system is:
 (a) ALU (b) Register (c) Control Unit (d) Logical instruction (e) None of these
- (48) The most abundant element present in the human body is:
 (a) Nitrogen (b) Carbon (c) Hydrogen (d) Oxygen (e) None of these
- (49) Cancer can be treated by:
 (a) Antibiotics and vaccines (b) Radiotherapy and antibodies
 (c) Chemotherapy and radiotherapy (d) Antibodies and chemotherapy
 (e) None of these
- (50) Animals obtain carbohydrate mainly from:
 (a) Sucrose (b) Starch (c) Glucose (d) Glycogen (e) None of these

PART – II

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

- Q.2. Write short note on the following by giving their exact life span and contributions to the field of science. (Accurate facts will be appreciated) (5 x 2)
 (a) Al – Biruni (b) Ibn – al – Haitham
- Q.3. What do you know about hereditary diseases? Comment how they are transferred from parents to offsprings? (3 + 7)
- Q.4. Write briefly about ANY FIVE of the following: (Answer in three or four sentences) (2 x 5)
 (a) Plaster of Paris (b) Reflex Action
 (c) Pace Maker (d) Swine Flue
 (e) Microwave Oven (f) The Internet
 (g) Voltage Stabilizer
- Q.5. (a) What is global warming? Is there a sunny side to global warming? If yes, explain. (2 + 6)
 (b) What makes the seasons happen? (2)
- Q.6. In which region of the world, the following animals are found? Give two main characteristics of each. (2 x 5)
 (a) Blind dolphin (b) Kangaroo (c) Panda
 (d) Kiwi (e) Penguin
- Q.7. (a) In which organ these parts are present in animals or human body? (2 + 8)
 (b) Describe the function of each briefly:
 (i) Coronary artery (ii) Sino-auricular Node (iii) Aortic Valve (iv) Auricle
- Q.8. Differentiate between the following pairs: (2 x 5)
 (a) Hydrometer and Hygrometer (b) Perimeter and Telemeter
 (c) Isotopes and Isomers (d) Flying mammal and Bird
 (e) Vertebrates and Invertebrates
- Q.9. (a) What are pesticides? Explain how these are dangerous to human beings? (2 + 4)
 (b) What do the following scientific abbreviations stand for? (1/2 each)
 (i) STP (ii) LORAN (iii) SONAR (iv) MAF
 (v) MeV (vi) MASER (vii) AWACS (viii) CCTV
