Subject Code : 601 Section Code : -Select- Difficulty: 1

Subject Code	Q Id	Questions	Answer Key
601	751	Which one of the following pigments does not occur in the chloroplast? (A) Carotene (B) Xanthophyll (C) Chlorophyll b (D) Anthocyanin	(D)
601	752	Total number of chromosomes in human cell is (A) 46 (B) 48 (C) 44 (D) 42	(C)
601	753	Plants which are not differentiated into roots, stem and leaves are grouped under (A) Gymnosperms (B) Pteridophytes (C) Spermatophytes (D) Thallophytes	(D)
601	754	Iodine is obtained from one of the following plants (A) Ulothrix (B) Ectocarpus (C) Laminaria (D) Oedogonium	(C)
601	755	Which one among the following is the most advanced group of algae? (A) Rhodophyta (B) Cyanophyta (C) Phaeophyta (D) Chlorophyta	(A)
601	756	Kelps is obtained from (A) Marine algae (B) Fresh water algae (C) Hot spring algae (D) Lichens	(A)
601	757	Vascular cambium is an example of (A) secondary meristem (B) intercalary meristem (C) lateral meristem	(C)

		(D) primary meristem	
601	758	Increase in girth in woody plants is due to the activity of (A) Cork cambium (B) Procambium (C) Fascicular cambium (D) All of the above	(A)
601	759	Fusion of male gamete with polar nuclei of embryosac is known as (A) pollination (B) embrogeny (C) triple fusion (D) double fertilization	(C)
601	760	The egg apparatus of angiosperm comprises of (A) an egg cell and two antipodals (B) an egg cell and the central cell (C) an egg cell and the two polar nuclei (D) an egg cell and two synergids	(D)
601	761	Endosperm is formed during the double-fertilization by the fusion of (A) one polar nucleus and one male gamete (B) two polar nuclei and one male gamete (C) two polar nuclei and two male gamete (D) ovum and male gamete	(B)
601	762	The rooting in stem cutting is stimulated by (A) Jasmonic acid (B) ABA (C) Ethylene (D) IAA	(D)
601	763	Who discovered the nucleus? (A) Henry Dutrochet (B) Theodor Schwann (C) Robert Brown (D) Robert Hooke	(C)
601	764	Phloem of gymnosperms is devoid of (A) Sieve tubes (B) Companion cells (C) Phloem parenchyma (D) None of the above	(B)
601	765	The plant that absorbs moisture directly from the atmosphere is	(A)

		(A) Vanda (B) Nepanthes (C) Pandanus (D) Eupatorium	
601	766	The pigment which imparts yellow colour to turmeric is (A) Xanthophyll (B) Curcumin (C) Anthocyanin (D) Haemoglobin	(B)
601	767	Which one of the following is responsible for converting milk into curd? (A) Bacillus sp. (B) Lactobacillus sp. (C) Psudomonas sp. (D) Clostridium sp.	(B)
601	768	Foot and mouth disease is found in (A) Cats and dogs (B) Cattle (C) Poultry (D) Humans	(B)
601	769	Among the following elements, which one is essential for the transmission of impulses in the nerve fibre? (A) Calcium (B) Iron (C) Sodium (D) Zinc	(A)
601	770	Medulla oblongata is called as (A) Piameter (B) Durameter (C) Vital knot (D) Pons verolii	(C)
601	771	The area of the human tongue sensitive to bitterness is restricted to (A) Tip (B) Edges (C) Middle part (D) Posterior part	(D)
601	772	Which one among the following is compulsory for blood coagulation? (A) Platelets (B) Lymphocytes	(C)

		(C) RBC (D) WBC	
601	773	Vector of filariasis is (A) Anopheles sp (B) Culex sp (C) Tse-tse fly (D) Mites	(B)
601	774	A cell increases in volume when it is placed in the (A) hypotonic solution (B) isotonic solution (C) hypertonic solution (D) None of the above	(A)
601	775	Edward Jenner is associated with (A) small pox (B) Rabies (C) cholera (D) typhoid	(A)
601	776	Which among the following helps in circulation of blood? (A) Lymphocytes (B) Monocytes (C) Erythrocytes (D) Blood platelets	(A)
601	777	Which acid is present in lemon? (A) Malic acid (B) Citric acid (C) Lactic acid (D) Tartaric acid	(B)
601	778	The term PVC used in the plastic industry stands for (A) Polyvinyl chloride (B) Polyvinyl carbonate (C) Phosphor vanadium chloride (D) Phosphavinyl chloride	(A)
601	779	Which among the following salts is used to produce artificial rain? (A) Copper oxide (B) Carbon monoxide (C) Silver iodide (D) Silver nitrate	(C)

601	780	Bleaching action of chlorine is by (A) Decomposition (B) Hydrolysis (C) Reduction (D) Oxidation	(A)
601	781	A mixture of potassium nitrate, powdered charcoal and Sulphur is called (A) Paint (B) Aluminium (C) Brass (D) Gun powder	(D)
601	782	Natural rubber is a polymer of (A) Ethylene (B) Propylene (C) Isoprene (D) Butadiene	(C)
601	783	The atomic theory was first proposed by (A) John Dalton (B) E.Rutherford (C) De Broglie (D) D.I. Mendeleef	(A)
601	784	One among the following gases is readily soluble in water at room temperature (A) Chlorine (B) Nitrogen (C) Ammonia (D) Carbon dioxide	(C)
601	785	Atomic number is equal to (A) Number of electrons (B) Number of neutrons (C) Number of positrons (D) Total number of protons and neutrons	(C)
601	786	One among the following chemicals is produced during the formation of photochemical smog (A) Nitrogen oxides (B) Hydrocarbons (C) Methane (D) Ozone	(D)
601	787	What is ‘laughing gas’? (A) Nitrous oxide (B) Nitric oxide	(A)

		(C) Nitrogen oxide (D) Nitrogen peroxide	
601	788	The acid generally used in batteries is (A) Nitric acid (B) Hydrochloric acid (C) Sulphuric acid (D) Acetic acid	(C)
601	789	Which of the following elements behave chemically both as a metal and a non-metal? (A) Boron (B) Carbon (C) Argon (D) Mercury	(A)
601	790	Which gas is filled in refrigerators? (A) Chlorofluorocarbon (B) Acetylene (C) Methane (D) Butane	(A)
601	791	The aqueous solution of which acid is called ‘Vinegar’? (A) Acetic acid (B) Hydrochloric acid (C) Citric acid (D) Oxalic acid	(A)
601	792	Which gas is used for artificial fruit ripening of green fruits? (A) Ethylene (B) Acetylene (C) Ethane (D) Methane	(A)
601	793	Maximum iron ore is found in which of the following state? (A) $FeCO_3$ (B) Fe_2O_3 (C) Fe_3O_4 (D) FeS2	(B)
601	794	The law which states that the amount of gas dissolved in a liquid is proportional to its partial pressure is (A) Dalton's law (B) Gay Lussac's law (C) Henry's law (D) Raoult's law	(C)

601	795	The highest temperature at which vapour pressure of a liquid can be measured is (A) the boiling point of the liquid (B) critical solution temperature (C) ionisation temperature (D) inversion temperature	(A)
601	796	Which of the following gas is chiefly present in liquefied petroleum gas (LPG)? (A) Butane (B) Propane (C) Ethane (D) Methane	(A)
601	797	Solid Carbon dioxide (Dry ice) is also known as (A) Thiokol (B) Mannitol (C) Perhydrol (D) Drikold	(D)
601	798	Virus mediated transfer of genetic material from one bacterial cell to another is called as (A) induction (B) transfection (C) transduction (D) transformation	(C)
601	799	Which one of the following is not used for the estimation of protein? (A) Lowry et al method (B) Bradford's method (C) Biuret method (D) DNSA method	(D)
601	800	The antibody that is initially detected in the serum immediate after infection is (A) IgG (B) IgM (C) IgD (D) IgA	(B)
601	801	Cerebral malaria is caused by (A) *Plasmodium vivax* (B) *P. ovale* (C) *P. falciparum* (D) *P. malariae*	(C)
601	802	Given that a bacterium has the generation time of 0.5 h, starting with an initial inoculum of 2×10^5, the bacterial count after 3 h of culture will be	(B)

		(A) 3.2 $\times 10^6$ (B) 6.4 $\times 10^6$ (C) 12.8 $\times 10^6$ (D) 12.8 $\times 10^7$	
601	803	The non-protein part of an enzyme is known as (A) Holoenzyme (B) Vitamin (C) Apoenzyme (D) Prosthetic group	(D)
601	804	Asthma occurs due to the (A) elasticity of lungs is reduced (B) degradation of alveolar wall (C) bronchioles constrict due to muscle spasms (D) damage in diaphragm	(C)
601	805	Immunodiagnostic tests for the detection of Influenza infection are based on the (A) Haemaglutination (B) Agglutination (C) Haemagglutination inhibition (D) Precipitation	(C)
601	806	The boiling point of water inside a pressure cooker is (A) below 100^{o}C (B) 100^{o}C (C) 115^{o}C (D) above 100^{o}C	(D)
601	807	In which of the following processes, the rate of transfer of heat is maximal? (A) Conduction (B) Convection (C) Radiation (D) Reflection	(C)
601	808	A blood group that has both A and B antigens but no antibody is (A) A (B) O (C) AB (D) B	(C)
601	809	Which one of the following diseases is ‘hereditary’ in nature? (A) Thalassemia (B) Pernicious anemia	(A)

		(C) Megalobalsticanemia (D) Galactosemia	
601	810	The diameter of a lens is called (A) Focal length (B) Principal axis (C) Aperture (D) Both focal length and aperture	(C)
601	811	The enzymes that catalyze the reactions of the Krebs cycle are found in which subcellular organelle of eukaryotes? (A) Endoplasmic reticulum (B) Lysosome (C) Ribosome (D) Mitochondrion	(D)
601	812	The stain that is used for staining chromosome is (A) Acetocarmine (B) Methylene blue (C) Methyl green (D) Haemotoxylin	(A)
601	813	Which one of the following bacteria is used for the production of transgenic plants? (A) *Escherichia coli* (B) *Bacillus thuringiensis* (C) *Staphylococcus aureus* (D) *Agrobacterium tumefaciens*	(D)
601	814	Embryonic stem cells are (A) Totipotent (B) Pluripotent (C) Differentiated (D) Unipotent	(B)
601	815	The pituitary gland’s posterior lobe produces (A) Vasopressin and Oxytosin (B) Cortisone and Corticosterone (C) Progesterone and Estradiol (D) Testosterone and Andosterone	(A)
601	816	The main constituent of plasma proteins is (A) Heparin (B) Fibrinogen (C) Globulin (D) Albumin	(C)

601	817	The cervical cancer is caused by (A) Papilloma virus (B) Herpes simplex virus (C) Hepatitis B virus (D) Vesicular stomatitis virus	(A)
601	818	What is not a weak interaction? (A) Van der Waals force (B) Covalent Bond (C) Hydrogen bonds (D) Ionic interaction	(B)
601	819	In eukaryotes, tRNA is synthesized by (A) RNA Pol I (B) RNA Pol II (C) RNA Pol III (D) MMLV RT	(C)
601	820	Penicillin inhibits the bacterial multiplication at the level (A) replication (B) protein synthesis (C) cell wall formation (D) RNA synthesis	(C)
601	821	Which one of the following statements best describes the function of the sigma subunit in the RNA Polymerase of E. coli? (A) It is essential for elongation of the RNA transcript (B) It is essential for the recognition of and binding to the promoter sequence (C) It increases RNA polymerase binding to any DNA template (D) It keeps the core complex from dissociating	(B)
601	822	Fleshy fruits with stony endocarp are called (A) Berries (B) Pomes (C) Drupes (D) Capsules	(C)
601	823	Which one of the following enzyme is used to clear blood clots that occur during myocardial infarction? (A) Glucokinase (B) Streptokinase (C) Aexokinase (D) Protein Kinase	(B)
601	824	A protein is poorly expressed in a diseased tissue. To determine whether the defect is at the level of transcription or translation, which of the following blotting methods would you use? (A) Southern	(C)

		(B) Southern and Northern (C) Northern and Western (D) Western	
601	825	Biopiracy means (A) use of biopatents (B) thefts of plants and animals (C) stealing of bioresources (D) exploitation of bioresources without authentic permission	(D)
601	826	A nucleoside is formed of (A) Pentose sugar, phosphate and nitrogen base (B) Phosphate and nitrogen base (C) Pentose sugar and phosphate (D) Pentose sugar and nitrogen base	(D)
601	827	BCG vaccine provides the protection against (A) Measles (B) Cholera (C) Tuberculosis (D) Small pox	(C)
601	828	A disease caused due to allergy is (A) Enteric fever (B) Yellow fever (C) Hay fever (D) Trench fever	(C)
601	829	T-Cell maturation takes place in (A) Bone marrow (B) Spleen (C) Thymus (D) Thyroid	(C)
601	830	Indicate the incorrectly matched option below: (A) Lister – aseptic surgery (B) Sabin – polio vaccine (C) Pasteur – microscopy (D) Fleming – penicillin	(C)
601	831	A man has some cows and ducks. If the number of heads is 70 and the number of legs is 200, then the number of cows will be (A) 30 (B) 44 (C) 20	(A)

		(D) 70	
601	832	Increase in the amount of the following is NOT a consequence of sewage effluents in river system (A) Microbial load (B) Phosphate level (C) Dissolved oxygen (D) Cyanobacterial density	(C)
601	833	The unit of distance between genes on a chromosomes is (A) cDNA (B) Morgan (C) Centimorgan (D) Chi-square	(C)
601	834	Which one of the following is an aromatic amino acid? (A) Phe (B) Lys (C) His (D) Val	(A)
601	835	The melting temperature of a DNA molecule is determined by (A) electrophoresis (B) change in electrical conductivity (C) density gradient ultracentrifugation (D) change in optical density	(D)
601	836	During allergic immune response the histamine is released from (A) B-lymphocyte (B) T-lymphocyte (C) Mast cell (D) Dendritic cell	(C)
601	837	*E. coli* alternate between tumbling and swimming behaviour by reversing the rotation of (A) Cilia (B) Pseudopodia (C) Flagella (D) Pili	(C)
601	838	The average life-span of RBCs in human blood is (A) 120 days (B) 90 days (C) 45 days (D) 180 days	(A)
601	839	IPTG is a non-fermentable analog of	(A)

		(A) Lactose (B) Fructose (C) Glucose (D) Galactose	
601	840	Loss of water as drops of liquid from the surface of a plant is called (A) Transpiration (B) Guttation (C) Evaporation (D) Translocation	(B)
601	841	Bile secretion is stimulated by the hormone (A) Angiotensin (B) Cholecystokinin (C) Insulin (D) Glucagon	(B)
601	842	Initiation of translation is facilitated by (A) tRNA (B) 5’ cap (C) Poly-A tail (D) All of the above	(B)
601	843	The first organism to have its genome sequenced was (A) *Haemophilus influenza* (B) *Escherichia coli* (C) *Mycoplasma genitalium* (D) *Saccaromyces cerevisiae*	(A)
601	844	Pulse field gel electrophoresis is used for the separation of (A) Centromeres (B) Telomeres (C) DNA (D) Chromosomes	(D)
601	845	The HIV protein that helps insert the HIV provirus into the host DNA is (A) Reverse transcriptase (B) Integrase (C) Protease (D) Ligase	(B)
601	846	Expression vectors are those that (A) can produce protein products (B) are used for genomic libraries	(A)

		(C) are used for chromosome synthesis (D) are used for finger-printing	
601	847	In meiosis, the recombination occurs during (A) Metaphase I (B) Prophase I (C) Metaphase II (D) Prophase II	(B)
601	848	In the preparation of a SDS-Polyacrylamide gel, which one of the following act(s) as the catalyst for polymerisation? (A) SDS (B) TEMED (C) Ammonium persulfate (D) Bis-acrylamide and Ammonium persulfate	(B)
601	849	The main function of sweating is (A) Thermoregulation of body (B) Excretion of salt (C) Maintenance of blood volume (D) Osmoregulation of body	(A)
601	850	The enzyme that helps in opening of DNA double-helix in front of a replication fork is (A) DNA gyrase (B) DNA Polymerase I (C) DNA ligase (D) DNA topoisomerase	(A)
601	851	In H_1 N_1 'H' stands for (A) Hamoglobin (B) Hemeagglutinin (C) Haemolytic (D) Human	(B)
601	852	The type of chromatography used for the determination of molecular weight of proteins is (A) Ion-exchange chromatography (B) Gel filtration (C) Affinity chromatography (D) Chromatofocusing	(B)
601	853	Bacterial ribosomes DO NOT have the following (A) 18S RNA (B) 16S RNA (C) 5S RNA (D) Two sub-units	(A)

601	854	Why are haploids preferred for plant breeding experiments? (A) Dominant characters are expressed (B) Recessive characters are expressed (C) Induction of mutation is easy (D) Incomplete dominance is expressed	(B)
601	855	Vibrio cholerae causes diahorrea by (A) opening ion channels (B) constitutive expression of adenylate cyclase (C) closing absorption of water from gut epithelium (D) destroying intestinal cell lining	(B)
601	856	Blocking of an enzyme through its active site is called (A) Allosteric inhibition (B) Feedback inhibition (C) Non-competitive inhibition (D) Competitive inhibition	(D)
601	857	The ratio of volume of RBCs to plasma is expressed as (A) Haematocit (B) Haematin (C) Haemogram (D) Haem percentage	(A)
601	858	Cells absorb Iron by the process of (A) Phagocytosis (B) Pinocytosis (C) Endocytosis (D) Active transport	(C)
601	859	Toxin-conjugated antibody molecules are known as (A) Toxoid (B) Immunotoxin (C) Reaginic antibody (D) Lymphotoxin	(B)
601	860	Surgical removal of gall bladder in man would lead to (A) Impairment of digestion of fat (B) Impairment of digestion of proteins (C) Jaundice (D) Liver cirrhosis	(A)
601	861	Malignant tumors typically result in …….. making the cancer hard to eradicate. (A) Benign	(C)

		(B) Tumor (C) Metastasis (D) Sarcomas	
601	862	The antigenic determinant of human blood group antigen is (A) Carbohydrate (B) Lipid (C) Polypeptide (D) Amino acid	(A)
601	863	Telomerase is an enzyme whose macromolecular composition is (A) Lipoprotein (B) Ribonucleoprotein (C) Ribonucleic acid only (D) Protein only	(B)
601	864	Positive control of lac operon is exerted by (A) cAMP (B) CAP (C) cAMP-CAP (D) Lactose	(C)
601	865	Hormone responsible for the production of RBC is (A) Adrenalin (B) Erythroferrone (C) Erythropoietin (D) GSH	(C)
601	866	Which of the following is used for artificial ripening of fruits? (A) Auxin (B) NAA (C) Zeatin (D) Ethylene	(D)
601	867	The Coliform count in drinking water is done to ascertain the (A) Fecal contamination (B) Hardness of water (C) Effect of chlorination (D) Effect of pollution	(A)
601	868	Gynandromorph is a (A) Male (B) Female (C) Both male and female (D) None of the above	(C)

601	869	Agar, commonly used in microbiology studies, is obtained from (A) Chlamydomonas (B) Radiolaria (C) Gelidium (D) Volvox	(C)
601	870	The hormone responsible for the metamorphosis in tadpole is (A) Adrenaline (B) Testosterone (C) Thyroxine (D) Growth hormone	(C)
601	871	Polytene chromosome is found in (A) Gametes (B) Blood cells (C) Liver cells (D) Salivary gland cells	(D)
601	872	Ovalbumin is synthesized in the (A) Liver (B) Ovary (C) Oviduct (D) Kidney	(C)
601	873	Transposon was first discovered in (A) *Zea mays* (B) *Drosophila melanogaster* (C) *Caenorhabditis elegans* (D) *Mus musculus*	(A)
601	874	The placenta in humans is derived from the (A) Embryo only (B) Uterus only (C) Endometrium and embryo (D) Endometrium only	(C)
601	875	Which of the following modified nucleotides is used for Sanger's DNA sequencing method? (A) Deoxyribose 5-methyl cytosine triphosphate (B) Bromodeoxyuridine triphosphate (C) Dideoxyribose adenine triphosphate (D) Deoxyribose 5-bromo uracil triphosphate	(C)
601	876	Sickle Cell Anaemia, a molecular disease of haemoglobin, is an example of (A) Non sense mutation	(B)

		(B) Substitution mutation (C) Deletion mutation (D) Insertion mutation	
601	877	All of these reagents are used in PCR except (A) *Taq* polymerase (B) Restriction enzymes (C) Oligonucleotides (D) Deoxynucleoside triphosphate	(B)
601	878	RNA molecules that exhibit catalytic activity are called (A) mRNAs (B) Ribonucleases (C) Ribozymes (D) Ribosomes	(C)
601	879	Which of the following cells lack true cytoskeleton? (A) Eukaryotic plant cells (B) Prokaryotic bacterial cells (C) Both (A) and (B) (D) Prokaryotic cells and eukaryotic animal cells	(B)
601	880	The microtubule assembly is inhibited by (A) Colchicine (B) Vincristine (C) Vinblastine (D) All of the above	(D)
601	881	In which phase of the cell cycle are the chromosomes inactive, condensed, and not transcribed to messenger RNA? (A) G1 phase (B) S phase (C) M phase (D) G_2 phase	(C)
601	882	A plasmid can be considered as a suitable cloning vector if (A) it can be readily isolated from the cells (B) it possesses a single restriction site for one or more restriction enzymes (C) insertion of foreign DNA does not alter its replication properties (D) All of the above	(D)
601	883	The size of the DNA that can be packaged into a λ phage is (A) 50 kb (B) 35-53 kb (C) 40-50 kb	(B)

		(D) any size	
601	884	The best method for the production of virus-free plant is by (A) Embryo culture (B) Meristem culture (C) Anther culture (D) Callus culture	(B)
601	885	Glyphosate is a herbicide inhibiting (A) Pigment biosynthesis (B) Nucleic acid biosynthesis (C) Energy production (D) Aromatic amino acid biosynthesis	(D)
601	886	Abzymes are (A) Catalytic antibodies (B) Bifunctional enzymes (C) Metallo enzymes (D) Plantibodies	(A)
601	887	If the cytosine content of a double-helical DNA is 20% of the total bases, the adenine content will be (A) 10% (B) 20% (C) 30% (D) 40%	(C)
601	888	The amino acid coded by one codon is (A) Proline (B) Methionine (C) Phenylalanine (D) Tryptophan	(B)
601	889	Vinblastin is produced by (A) *Vinca rosea* (B) *Vernonia cinera* (C) *Centella asiatica* (D) *Vitex negundu*	(A)
601	890	The first cloned animal is (A) Dolly (B) Guinea pig (C) Mule (D) Cat	(A)
601	891	Homologous chromosomes move towards opposite poles of a dividing cell during	(B)

		(A) Mitosis (B) Meiosis I (C) Meiosis II (D) Fertilization	
601	892	High content of □-carotene is present in (A) Beet root (B) Carrot (C) Tomoto (D) Redgram	(B)
601	893	Golden rice is a transgenic crop of the future with the following improved trait (A) Insect resistance (B) High lysine content (C) High vitamin A (D) High protein	(C)
601	894	Proteins having equal positive and negative charges are called as (A) Positron (B) Cation (C) Anion (D) Zwitterion	(D)
601	895	A Hybridoma cell secretes (A) Antibody (B) Antigen (C) Cytokine (D) Plantibody	(A)
601	896	A tissue transplantion from baboon to human is called (A) Allograft (B) Autograft (C) Xenograft (D) Isograft	(C)
601	897	Light activation of enzymes is commonly present in the following organelle (A) Mitichondria (B) Chloroplast (C) Peroxisome (D) Glyoxysome	(B)
601	898	The half- life of Tritium is (A) 12.3 years (B) 14-5 days	(A)

		(C) 100 years (D) 1400 years	
601	899	The model plant for genomic studies is (A) *Arabidopsis thaliana* (B) *Glycine max* (C) *Pisum sativum* (D) *Nicotiana tabacum*	(A)
601	900	The first case of life patenting was done by (A) Ananda Chakrabarthy (B) Milstein and Kohler (C) E.C. Cocking (D) Philip Leder	(A)