Biology Sample Paper - 3

- **Instructions : Attempt any 40 questions out of 50**
- **Time : 45 Minutes**
- **Answer key are given end of the set**

Q.1: Asexual reproduction is a method of reproduction in which participation of …… takes place.
(a) one individual
(b) two individuals (same species)
(c) multi-individuals
(d) two individuals (different species)

Q.2: In diploid organism the gamete producing cells are called
(a) gamete mother cell
(b) meiocytes
(c) Both (a) and (b)
(d) None of these

Q.3: The male gametes of rice plant have 12 chromosomes in their nucleus. The chromosome number in the female gamete, zygote and the cells of the seedling will be, respectively
(a) 12, 24, 12
(b) 24, 12, 12
(c) 12, 24, 24
(d) 24, 12, 24

Q.4: Number of microsporangia in an angiospermic anther is
(a) 1
(b) 2
(c) 3
(d) 4

Q.5: Characteristic of wind pollinated pollens is, they are
(a) non-sticky
(b) light
(c) produced in large number
(d) All of the above

Q.6: Dehiscence of anther in mesophytes is caused by
(a) hydration of anthers
(b) dehydration of anthers
(c) mechanical injury
(d) None of these

Q.7: Approximate length and width of testis are
(a) 4-5 cm and 2-3 cm
(b) 5-6 cm and 3-4 cm
(c) 6-7 cm and 4-5 cm
(d) 7-8 cm and 8-9 cm

Q.8: Spermatogenesis starts at puberty due to significant increase in the secretion of
(a) GnRH
(b) prolactin
(c) testosterone
(d) oestrogen

Q.9: Inner cell mass or embryoblast gives rise to
(a) foetal part
(b) embryo
(c) notochord
(d) nourishment cell

Q.10: Family planning programme was initiated in
(a) 1951
(b) 1920
(c) 1930
(d) 1950

Q.11: The other names for STIs or STDs are
(a) venereal diseases
(b) reproductive tract infections
(c) Both (a) and (b)
(d) None of these

Q.12: GIFT can be advised to couples where female partner is
(a) unable to produce eggs
(b) unable to support a foetus
(c) unable to provide suitable environment for fertilisation and maturation of foetus
(d) All of the above

Q.13: Out of 7 contrasting trait pairs selected by Mendel, how many traits were dominant and recessive?
(a) 7 and 7
(b) 8 and 6
(c) 6 and 8
(d) 5 and 9

Q.14: If there are four different types of nitrogenous bases (A, T, G and C) then how many different types of transitions and transversion are possible?
(a) Transition = 8, Transversion = 4
(b) Transition = 4, Transversion = 4
(c) Transition = 8, Transversion = 4
(d) Transition = 4, Transversion = 8

Q.15: In sickle-cell anaemia,
(a) Both parents are heterozygous carriers, but are unaffected
(b) Single pair of allele controls the disease
(c) Only Hb Hb s s show diseased phenotype
(d) All of the above

Q.16: Choose the correct option.
(a) Pyrimidines include adenine and guanine
(b) Pyrimidines include cytosine, uracil and thymine
(c) Purines include adenine and thymine
(d) Purines include guanine and cytosine

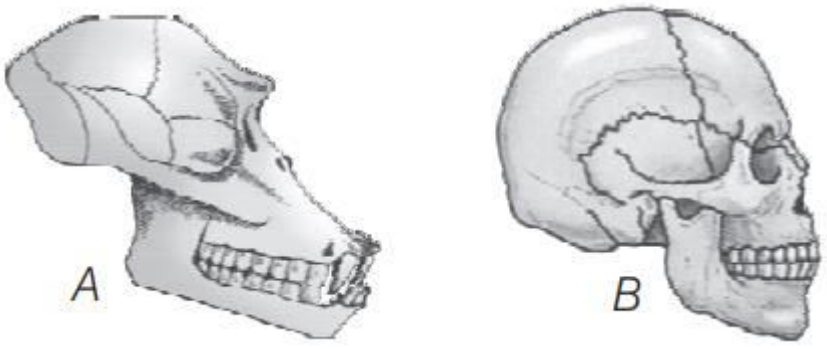
Q.17: Termination of protein synthesis or translation requires
(a) Both stop signal and starting codon
(b) Both starting codon and release factor
(c) Both release factor and stop codon
(d) GUG and AUG codon

Q.18: DNA fingerprinting involves identifying the differences in some specific regions in DNA sequence called
(a) non-repetitive DNA
(b) coding DNA
(c) non-coding DNA
(d) repetitive DNA

Q.19: Evidence that evolution of life forms has indeed taken place on earth has come from
(a) fossil studies (palaeontological evidences)
(b) morphological and comparative anatomical studies
(c) biochemical studies
(d) All of the above

Q.20: First human like hominid is known as
(a) Neanderthal man
(b) Homo habilis
(c) Dryopithecus
(d) Homo erectus

Q.21: The diagram given here shows the skull of two different mammals. Choose the most appropriate difference between A and B.



(a) Skull A has more teeth than skull B
(b) Skull A has more brain capacity than skull B
(c) Skull A is of a human and skull B is of an ape
(d) Skull A is of an ape and skull B is of human

Q.22: Common symptoms of typhoid are
(a) high fever 39°C to 40°C and weakness
(b) stomach pain and constipation
(c) headache and loss of appetite
(d) All of the above

Q.23: Physical carcinogens, e.g. UV-ray, X-ray and g-rays cause
(a) DNA damage
(b) RNA damage
(c) Both (a) and
(b) (d) Protein damage

Q.24: LSD is derived from
(a) Claviceps purpurea
(b) Pseudomonas putida
(c) Cannabis indica
(d) Cannabis sativa

Q.25: Choose the correct option.
(a) More than 70% of the world livestock population is in India and China
(b) The contribution of India and china to the world farm produce is about 25%
(c) Important livestock of India are cattle and buffaloes
(d) All of the above

Q.26: Pomato is a somatic hybrid of
(a) potato and onion
(b) potato and tomato
(c) potato and brinjal
(d) brinjal and tomato

Q.27: The technique of regeneration of whole plant from any part of a plant by allowing it to grow on a suitable culture under aseptic sterile conditions in vitro is called
(a) tissue culture
(b) plant culture
(c) micropropagation
(d) somatic hybridisation

Q.28: The microscopic proteinaceous infectious agents are
(a) viroids
(b) prions
(c) protozoans
(d) bacteria

Q.29: In the primary treatment of sewage, the soil and small pebbles are removed by
(a) filtration
(b) sedimentation
(c) condensation
(d) evaporation

Q.30: A biocontrol agent used for pest butterfly caterpillars is
(a) Trichoderma
(b) Bacillus thuringiensis
(c) Pseudomonas
(d) Rhizobium

Q.31: Restriction endonuclease binds to DNA and cuts two strands of double helix at specific points in their
(a) sugar-phosphate backbone
(b) hydrogen bond
(c) glycosidic bonds
(d) None of the above

Q.32: Agrobacterium tumefaciens delivers a piece of DNA into dicot plant. The piece of DNA is called as
(a) rDNA
(b) T-DNA
(c) mDNA
(d) cDNA

Q.33: Protein encoding gene which is expressed in heterologous host is
(a) foreign protein
(b) heterologous protein
(c) recombinant protein
(d) alien protein

Q.34: Bt toxin is
(a) intracellular crystalline protein
(b) extracellular crystalline protein
(c) intracellular monosaccharide
(d) extracellular polysaccharide

Q.35: Which of the following transgenic animals are used in testing safety of polio vaccine before they are used on human?
(a) Transgenic cow
(b) Transgenic monkey
(c) Transgenic mice
(d) Transgenic sheep

Q.36: For the first time, gene therapy was tried on a 4 year old girl in 1990 to treat which of the following enzyme deficiency?
(a) Cytosine Deaminase (CDA)
(b) Adenosine Deaminase (ADA)
(c) Tyrosine oxidase
(d) Glutamate trihydrogenase

Q.37: Different organisms are adapted to their environment in terms of not only survival but also reproduction. This statement belongs to
(a) physiological ecology
(b) species ecology
(c) population ecology
(d) All of these

Q.38: Interspecific interaction could be
(a) beneficial
(b) detrimental
(c) neutral
(d) All of these

Q.39: Mycorrhiza represents an intimate mutualistic relationship between
(a) fungi and stem of higher plants
(b) fungi and roots of higher plants
(c) fungi and leaves of higher plants
(d) fungi and leaflets of higher plants

Q.40: Stratification is more pronounced in
(a) tropical rainforest
(b) deciduous forest
(c) temperate forest
(d) tropical savannah

Q.41: The relation between producers and consumers in an ecosystem can be graphically represented in the form of a pyramid called
(a) ecological pyramid
(b) trophic level
(c) Pi chart
(d) pyramid of biomass

Q.42: Which of the following factor is contributing to an overload of the carbon cycle?
(a) Photosynthesis
(b) Cellular respiration
(c) Deforestation
(d) Afforestation

Q.43: Tropics (23.5°N to 23.5°S) have ……. species as compared to temperate or polar regions. The most appropriate word to
fill the blank is
(a) less
(b) equal
(c) more
(d) None of these

Q.44: In which one of the following, both pairs have correct combination?
(a) In situ conservation/National park Ex situ conservation/Botanical garden
(b) In situ conservation/Cryopreservation Ex situ conservation/Wildlife sanctuary
(c) In situ conservation/Seed bank Ex situ conservation/National park
(d) In situ conservation/Tissue culture Ex situ conservation/Sacred groves

Q.45: Sacred groves in India are found in
(a) Jaintia hills of Karnataka
(b) Western Ghat regions of Tamil Nadu
(c) Aravalli hills of Meghalaya
(d) Bastar areas of Madhya Pradesh

Q.46: Which of the following problem(s) is/are created by a brief exposure to extremely high sound level, 150 dB or more generated by take off of a jet plane or rocket?
(a) Deafness
(b) Damage eardrums
(c) Both (a) and (b)
(d) None of the above

Q.47: Slash and burn agriculture in North-Eastern states of India is also called
(a) ley farming
(b) commercial agriculture
(c) Jhum cultivation
(d) All of these

Q.48: Carbon dioxide is called greenhouse gas because it is
(a) used in greenhouse to increase plant growth
(b) transparent to heat but traps sunlight
(c) transparent to sunlight but traps heat
(d) transparent to both sunlight and heat

Q.49: In water hyacinth and water lily, pollination takes place by
(a) water currents only
(b) wind and water
(c) insects and water
(d) insects or wind

Q.50: Which one of the following is true with respect to AUG?
(a) It codes for methionine only
(b) It is also an initiation codon
(c) It codes for methionine in both prokaryotes and eukaryotes
(d) All of the above

Answer Key : CUET (UG) Biology Sample Paper

1. (a)	2. (c)	3. (c)	4. (d)	5. (d)	6. (b)	7. (a)	8. (a)	9. (b)	10. (a)
11. (c)	12. (d)	13. (a)	14. (d)	15. (d)	16. (b)	17. (c)	18. (d)	19. (d)	20. (b)
21. (d)	22. (d)	23. (a)	24. (a)	25. (d)	26. (b)	27. (a)	28. (b)	29. (b)	30. (b)
31. (a)	32. (b)	33. (c)	34. (a)	35. (c)	36. (b)	37. (a)	38. (d)	39. (b)	40. (a)
41. (a)	42. (c)	43. (c)	44. (a)	45. (d)	46. (c)	47. (c)	48. (c)	49. (d)	50. (d)