



DU MSc Plant Molecular Biology N
Biotechnology

Topic:- DU_118_MSC_PMBB

1) Which of the following microscopy techniques is used for live cell imaging?

[Question ID = 52319]

1. Scanning electron microscopy [Option ID = 89271]
2. Atomic force microscopy [Option ID = 89269]
3. Phase contrast microscopy [Option ID = 89270]
4. Transmission electron microscopy [Option ID = 89268]

Correct Answer :-

- Phase contrast microscopy [Option ID = 89270]

2) Which of the following is a selection marker gene?

[Question ID = 52271]

1. nptII [Option ID = 89079]
2. gfp [Option ID = 89076]
3. Luciferase [Option ID = 89077]
4. gus [Option ID = 89078]

Correct Answer :-

- nptII [Option ID = 89079]

3) Which of the following enzyme is not heat tolerant?

[Question ID = 52359]

1. *Pfu* DNA polymerase. [Option ID = 89430]
2. *E. coli* DNA polymerase [Option ID = 89429]
3. *Taq* DNA polymerase. [Option ID = 89431]
4. Deep Vent DNA polymerase. [Option ID = 89428]

Correct Answer :-

- *E. coli* DNA polymerase [Option ID = 89429]

4) Central Soil and Materials Research Station is located in [Question ID = 52349]

1. Mohali. [Option ID = 89391]
2. Chandigarh. [Option ID = 89390]
3. Panipat. [Option ID = 89388]
4. New Delhi. [Option ID = 89389]

Correct Answer :-

- New Delhi. [Option ID = 89389]

5) Topoisomerases are involved in determining [Question ID = 52280]

1. topology of translating mRNA. [Option ID = 89115]
2. supercoiling of DNA. [Option ID = 89114]
3. binding of histones to DNA. [Option ID = 89113]
4. the structure of telomeres. [Option ID = 89112]

Correct Answer :-

- supercoiling of DNA. [Option ID = 89114]

6) Cotton belongs to the family [Question ID = 52360]

1. Anacardiaceae [Option ID = 89432]
2. Malvaceae [Option ID = 89434]





3. Brassicaceae [Option ID = 89433]
4. Solanaceae [Option ID = 89435]

Correct Answer :-

- Malvaceae [Option ID = 89434]

7) Epiphytic orchid roots are a form of [Question ID = 52324]

1. parasitic roots. [Option ID = 89290]
2. prop roots. [Option ID = 89289]
3. aerial roots. [Option ID = 89288]
4. storage roots. [Option ID = 89291]

Correct Answer :-

- aerial roots. [Option ID = 89288]

8) 2,4-D is commercially used as a

[Question ID = 52328]

1. pesticide. [Option ID = 89305]
2. herbicide. [Option ID = 89306]
3. florigen. [Option ID = 89304]
4. fungicide. [Option ID = 89307]

Correct Answer :-

- herbicide. [Option ID = 89306]

9) Haber-Bosch made a significant contribution in the synthesis of which of the following chemical compounds? [Question ID = 52299]

1. Silver chloride [Option ID = 89189]
2. Mercuric oxide [Option ID = 89190]
3. Sulphur dioxide [Option ID = 89191]
4. Ammonia [Option ID = 89188]

Correct Answer :-

- Ammonia [Option ID = 89188]

10) The width of DNA is [Question ID = 52273]

1. 2 nm. [Option ID = 89085]
2. 200 Angstrom. [Option ID = 89086]
3. 3.4 nm. [Option ID = 89084]
4. 0.34 fm. [Option ID = 89087]

Correct Answer :-

- 2 nm. [Option ID = 89085]

11) The gritty texture in Pears is due to [Question ID = 52325]

1. collenchyma. [Option ID = 89293]
2. pits. [Option ID = 89295]
3. tracheids. [Option ID = 89294]
4. sclereids. [Option ID = 89292]

Correct Answer :-

- sclereids. [Option ID = 89292]

12) Which coenzyme is required for reduction of glutathione? [Question ID = 52288]

1. NADPH [Option ID = 89146]
2. FAD [Option ID = 89145]
3. FMN [Option ID = 89147]
4. NADH [Option ID = 89144]

Correct Answer :-

- NADPH [Option ID = 89146]

13) Which country is the largest producer of chickpea? [Question ID = 52298]





1. Egypt [Option ID = 89187]
2. Turkey [Option ID = 89186]
3. India [Option ID = 89185]
4. Israel [Option ID = 89184]

Correct Answer :-

- India [Option ID = 89185]

14) Which country is the largest producer of wheat? [Question ID = 52296]

1. Mexico [Option ID = 89177]
2. USA [Option ID = 89176]
3. India [Option ID = 89179]
4. China [Option ID = 89178]

Correct Answer :-

- China [Option ID = 89178]

15) QTL represents following: [Question ID = 52270]

1. Qualitative trait locus [Option ID = 89075]
2. Quantitative trade locus [Option ID = 89074]
3. Quantitative trait locus [Option ID = 89073]
4. Quantitative test locus [Option ID = 89072]

Correct Answer :-

- Quantitative trait locus [Option ID = 89073]

16) The genetic term 'LOD Score' is related to [Question ID = 52350]

1. Gene linkage. [Option ID = 89394]
2. Gene mutation. [Option ID = 89395]
3. Gene dominance. [Option ID = 89393]
4. Epistasis. [Option ID = 89392]

Correct Answer :-

- Gene linkage. [Option ID = 89394]

17) The genome sequencing of which of the plant was carried out first? [Question ID = 52367]

1. Wheat [Option ID = 89463]
2. Tomato [Option ID = 89462]
3. Arabidopsis [Option ID = 89461]
4. Rice [Option ID = 89460]

Correct Answer :-

- Arabidopsis [Option ID = 89461]

18) The popular molecular biology abbreviation NGS stands for [Question ID = 52346]

1. Next Generation Sequencing. [Option ID = 89379]
2. Next Generation Synthesis. [Option ID = 89378]
3. Novel Gene Sequences. [Option ID = 89376]
4. New Gene Sequences. [Option ID = 89377]

Correct Answer :-

- Next Generation Sequencing. [Option ID = 89379]

19) Root hairs are found in which of the following areas?

[Question ID = 52327]

1. Root cap [Option ID = 89300]
2. Zone of cell elongation [Option ID = 89302]
3. Zone of cell division [Option ID = 89303]
4. Zone of cell maturation [Option ID = 89301]

Correct Answer :-

- Zone of cell maturation [Option ID = 89301]





20) Yeast one-hybrid assay is employed to study interaction between [Question ID = 52356]

1. protein and protein. [Option ID = 89416]
2. DNA and DNA. [Option ID = 89419]
3. DNA and proteins. [Option ID = 89417]
4. DNA and RNA. [Option ID = 89418]

Correct Answer :-

- DNA and proteins. [Option ID = 89417]

21) Anthropogenic extinction occurs due to [Question ID = 52330]

1. floods. [Option ID = 89313]
2. tectonic shifts. [Option ID = 89314]
3. earthquakes. [Option ID = 89312]
4. human activities. [Option ID = 89315]

Correct Answer :-

- human activities. [Option ID = 89315]

22) In an experiment, cell culture was supplied with ^{35}S radioisotope to label the newly synthesized peptides. Among the following which peptide will be labelled?

[Question ID = 52309]

1. Glycine-Cysteine-Valine-Proline [Option ID = 89228]
2. Tryptophan-Serine-Threonine-Histidine [Option ID = 89230]
3. Arginine-Glycine-Tryptophan-Proline. [Option ID = 89231]
4. Isoleucine-Valine-Tyrosine-Tryptophan [Option ID = 89229]

Correct Answer :-

- Glycine-Cysteine-Valine-Proline [Option ID = 89228]

23) Opening and closing of the stomata in plants is mainly regulated by [Question ID = 52366]

1. Na^+ channel. [Option ID = 89458]
2. HCO_3^- channel. [Option ID = 89457]
3. K^+ channel. [Option ID = 89456]
4. NO_3^- channel. [Option ID = 89459]

Correct Answer :-

- K^+ channel. [Option ID = 89456]

24) Which plant organelle exhibit highest acid phosphatase activity? [Question ID = 52315]

1. Nuclei [Option ID = 89252]
2. Mitochondria [Option ID = 89255]
3. Peroxisomes [Option ID = 89254]
4. Vacuoles [Option ID = 89253]

Correct Answer :-

- Vacuoles [Option ID = 89253]

25) Which part of the plants is least likely to be infected by viruses? [Question ID = 52339]

1. Shoot meristem [Option ID = 89349]
2. Flowers [Option ID = 89350]
3. Crown tissue. [Option ID = 89351]
4. Leaves [Option ID = 89348]

Correct Answer :-

- Shoot meristem [Option ID = 89349]

26) A nonsense mutation involves [Question ID = 52281]

1. a nucleotide substitution that creates a stop codon in a gene. [Option ID = 89116]
2. a nucleotide substitution which adds an extra start codon. [Option ID = 89119]
3. a mutation which makes no change in the amino acid sequence. [Option ID = 89117]



4. a mutation which substitutes only one amino acid in a protein. [Option ID = 89118]

Correct Answer :-

- a nucleotide substitution that creates a stop codon in a gene. [Option ID = 89116]

27) The primary walls of endodermis are impregnated with [Question ID = 52323]

1. lignin. [Option ID = 89286]
2. proteins. [Option ID = 89285]
3. suberin. [Option ID = 89287]
4. wax. [Option ID = 89284]

Correct Answer :-

- suberin. [Option ID = 89287]

28) In the context of bacteriophage lambda, lysogeny indicates a stage where [Question ID = 52282]

1. the bacteriophage DNA gets integrated into the bacterial chromosome. [Option ID = 89122]
2. the bacteria form large colonies. [Option ID = 89123]
3. multiple copies of bacteriophages are formed. [Option ID = 89121]
4. there is rapid lysis of bacteria. [Option ID = 89120]

Correct Answer :-

- the bacteriophage DNA gets integrated into the bacterial chromosome. [Option ID = 89122]

29) 'Teosinte' is the progenitor of which of the following crops? [Question ID = 52300]

1. Maize [Option ID = 89193]
2. Rice [Option ID = 89192]
3. Barley [Option ID = 89195]
4. Wheat [Option ID = 89194]

Correct Answer :-

- Maize [Option ID = 89193]

30) Carbohydrates are present in the plasmalemma as [Question ID = 52333]

1. glycolipids. [Option ID = 89326]
2. hemicellulose. [Option ID = 89325]
3. cellulose. [Option ID = 89324]
4. starch. [Option ID = 89327]

Correct Answer :-

- glycolipids. [Option ID = 89326]

31) Plasma membrane of a plant cell consists of

[Question ID = 52314]

1. carbohydrate, protein and esters. [Option ID = 89249]
2. phospholipids and proteins. [Option ID = 89250]
3. lipids, acid and base. [Option ID = 89248]
4. free fatty acid, steroids and proteins. [Option ID = 89251]

Correct Answer :-

- phospholipids and proteins. [Option ID = 89250]

32) Nucleosome is involved in [Question ID = 52365]

1. DNA packaging. [Option ID = 89452]
2. RNA packaging. [Option ID = 89453]
3. DNA recombination. [Option ID = 89455]
4. Protein transport. [Option ID = 89454]

Correct Answer :-

- DNA packaging. [Option ID = 89452]

33) In higher plants, the shape of the chloroplast is [Question ID = 52311]



1. cup-shaped. [Option ID = 89237]
2. girdle-shaped. [Option ID = 89238]
3. ribbon-shaped. [Option ID = 89239]
4. discoid. [Option ID = 89236]

Correct Answer :-

- discoid. [Option ID = 89236]

34) The molecular biology term EST stands for [Question ID = 52347]

1. Exon Sequencing Technique. [Option ID = 89382]
2. Eukaryotic Sequenced Tag. [Option ID = 89383]
3. Expressed Sequenced Tag. [Option ID = 89381]
4. Express Sequencing Technique. [Option ID = 89380]

Correct Answer :-

- Expressed Sequenced Tag. [Option ID = 89381]

35) The longest cell in the human body is [Question ID = 52334]

1. muscle cell. [Option ID = 89328]
2. heart cell. [Option ID = 89331]
3. bone cell. [Option ID = 89329]
4. nerve cell. [Option ID = 89330]

Correct Answer :-

- nerve cell. [Option ID = 89330]

36) The smallest amino acid is [Question ID = 52308]

1. isoleucine. [Option ID = 89227]
2. valine. [Option ID = 89226]
3. glycine. [Option ID = 89224]
4. alanine. [Option ID = 89225]

Correct Answer :-

- glycine. [Option ID = 89224]

37) Cell elongation in intermodal regions in green plants takes place due to [Question ID = 52337]

1. ethylene. [Option ID = 89342]
2. gibberellins. [Option ID = 89341]
3. cytokinins. [Option ID = 89340]
4. indole acetic acid. [Option ID = 89343]

Correct Answer :-

- gibberellins. [Option ID = 89341]

38) In which sport, the Indian team won Gold medal for the first time in 2018 Commonwealth Games? [Question ID = 52344]

1. Women Cricket [Option ID = 89370]
2. Women Hockey [Option ID = 89369]
3. Women Table Tennis [Option ID = 89371]
4. Women Basketball [Option ID = 89368]

Correct Answer :-

- Women Table Tennis [Option ID = 89371]

39) The Nobel Prize in the field of medicine/physiology 2017 was awarded for the discovery of molecular mechanism controlling [Question ID = 52306]

1. circadian rhythm. [Option ID = 89216]
2. gene silencing. [Option ID = 89219]
3. autophagy. [Option ID = 89217]
4. innate immunity. [Option ID = 89218]

Correct Answer :-

- circadian rhythm. [Option ID = 89216]





40) Name the only common amino acid having an ionisable side chain with a pKa near neutrality: [Question ID = 52355]

1. Histidine [Option ID = 89415]
2. Glycine [Option ID = 89412]
3. Valine [Option ID = 89413]
4. Aspartic acid [Option ID = 89414]

Correct Answer :-

- Histidine [Option ID = 89415]

41) Name the enzyme of TCA cycle which uses FAD as a cofactor: [Question ID = 52285]

1. Citrate synthase [Option ID = 89132]
2. Isocitrate dehydrogenase [Option ID = 89135]
3. Succinate dehydrogenase [Option ID = 89134]
4. Alpha ketoglutarate dehydrogenase [Option ID = 89133]

Correct Answer :-

- Succinate dehydrogenase [Option ID = 89134]

42) What is maximum resolving power of light microscope? [Question ID = 52316]

1. 2.0 μm [Option ID = 89257]
2. 0.1 μm [Option ID = 89258]
3. 0.2 μm [Option ID = 89259]
4. 1.0 μm [Option ID = 89256]

Correct Answer :-

- 0.2 μm [Option ID = 89259]

43) 'Norin 10' is a cultivar of [Question ID = 52301]

1. rice. [Option ID = 89197]
2. wheat. [Option ID = 89196]
3. maize. [Option ID = 89198]
4. sorghum. [Option ID = 89199]

Correct Answer :-

- wheat. [Option ID = 89196]

44) The concept of 'Totipotency' was given by [Question ID = 52302]

1. T. Murashige. [Option ID = 89202]
2. P. Maheshwari. [Option ID = 89201]
3. E.C. Cocking. [Option ID = 89203]
4. G. Haberlandt. [Option ID = 89200]

Correct Answer :-

- G. Haberlandt. [Option ID = 89200]

45) Brown mustard is [Question ID = 52297]

1. Brassica juncea. [Option ID = 89183]
2. Brassica nigra. [Option ID = 89180]
3. Brassica carinata. [Option ID = 89182]
4. Brassica napus. [Option ID = 89181]

Correct Answer :-

- Brassica juncea. [Option ID = 89183]

46) When a plant cell is shifted from an isotonic to a hypotonic solution, the cell will [Question ID = 52321]

1. die. [Option ID = 89279]
2. swell. [Option ID = 89277]
3. shrink. [Option ID = 89276]
4. not change in size. [Option ID = 89278]

Correct Answer :-

- not change in size. [Option ID = 89278]





47) The repeating unit of glycogen is [Question ID = 52335]

1. galactose. [Option ID = 89335]
2. mannose. [Option ID = 89333]
3. glucose. [Option ID = 89332]
4. fructose. [Option ID = 89334]

Correct Answer :-

- glucose. [Option ID = 89332]

48) In dicots, primary growth is initiated by the

[Question ID = 52326]

1. vascular cambium. [Option ID = 89297]
2. intercalary meristems. [Option ID = 89299]
3. apical meristems. [Option ID = 89296]
4. lateral meristems. [Option ID = 89298]

Correct Answer :-

- apical meristems. [Option ID = 89296]

49) Isoschizomers are the restriction endonucleases that have [Question ID = 52364]

1. different recognition and cleavage sites. [Option ID = 89448]
2. different recognition and similar cleavage sites. [Option ID = 89449]
3. same recognition and cleavage sites. [Option ID = 89451]
4. same recognition and different cleavage sites. [Option ID = 89450]

Correct Answer :-

- same recognition and cleavage sites. [Option ID = 89451]

50) Moss peat is used for transportation of live plant material because [Question ID = 52331]

1. it is hygroscopic. [Option ID = 89317]
2. it is easily available. [Option ID = 89316]
3. it serves as a disinfectant. [Option ID = 89319]
4. it reduces transpiration. [Option ID = 89318]

Correct Answer :-

- it is hygroscopic. [Option ID = 89317]

51) IUPAC stands for [Question ID = 52338]

1. International Union of Pure and Applied Chemistry. [Option ID = 89347]
2. International Union of Primary and Applied Chemistry. [Option ID = 89345]
3. Indian Union of Primary and Applied Chemistry. [Option ID = 89344]
4. Indian Union of Pure and Applied Chemistry. [Option ID = 89346]

Correct Answer :-

- International Union of Pure and Applied Chemistry. [Option ID = 89347]

52) The number of amino acids in the protein translated from a 336 nucleotides long mRNA (including initiator and termination codon) is [Question ID = 52304]

1. 109 [Option ID = 89208]
2. 112 [Option ID = 89211]
3. 110 [Option ID = 89209]
4. 111 [Option ID = 89210]

Correct Answer :-

- 111 [Option ID = 89210]

53) Metabolomics is the study of the [Question ID = 52269]

1. metagenome. [Option ID = 89069]
2. entire suite of metabolites. [Option ID = 89068]
3. proteins involved in metabolism. [Option ID = 89070]
4. enzymes. [Option ID = 89071]



Correct Answer :-

- entire suite of metabolites. [Option ID = 89068]

54) The office of the Indian National Science Academy is located at [Question ID = 52341]

- Allahabad. [Option ID = 89356]
- New Delhi. [Option ID = 89359]
- Hyderabad. [Option ID = 89358]
- Bengaluru. [Option ID = 89357]

Correct Answer :-

- New Delhi. [Option ID = 89359]

55) Which of the amino acids is precursor for ethylene? [Question ID = 52292]

- Glycine [Option ID = 89163]
- Cysteine [Option ID = 89162]
- Tryptophan [Option ID = 89160]
- Methionine [Option ID = 89161]

Correct Answer :-

- Methionine [Option ID = 89161]

56) Seymour Benzer carried out fine structure mapping of rII gene of bacteriophage T4 by [Question ID = 52279]

- DNA sequencing of mutant bacteriophages. [Option ID = 89108]
- 2D gel electrophoresis of bacteriophage proteins. [Option ID = 89110]
- recovery of wild type bacteriophages from crosses of mutant phages. [Option ID = 89111]
- transcript analysis of mutant bacteriophages. [Option ID = 89109]

Correct Answer :-

- recovery of wild type bacteriophages from crosses of mutant phages. [Option ID = 89111]

57) Coiling of garden pea tendrils around a support is an example of [Question ID = 52336]

- thigmonasty. [Option ID = 89339]
- thigmotropism. [Option ID = 89338]
- thigmotaxis. [Option ID = 89336]
- thermotaxis. [Option ID = 89337]

Correct Answer :-

- thigmotropism. [Option ID = 89338]

58) Who discovered the principle of confocal microscopy? [Question ID = 52320]

- Georges Nomarsky [Option ID = 89273]
- Ernest Abbe [Option ID = 89275]
- Carl Zeiss [Option ID = 89272]
- Marvin Lee Minsky [Option ID = 89274]

Correct Answer :-

- Marvin Lee Minsky [Option ID = 89274]

59) cDNA is synthesized by [Question ID = 52272]

- RNA polymerase I. [Option ID = 89080]
- RNA polymerase II. [Option ID = 89081]
- RNA polymerase III. [Option ID = 89082]
- Reverse transcriptase. [Option ID = 89083]

Correct Answer :-

- Reverse transcriptase. [Option ID = 89083]

60) Which region of the visible spectrum is optimal for the light reaction of photosynthesis? [Question ID = 52363]

- Green and blue. [Option ID = 89447]
- Green and red [Option ID = 89444]
- Violet and blue [Option ID = 89445]
- Blue and red [Option ID = 89446]



Correct Answer :-

- Blue and red [Option ID = 89446]

61) The juvenile stage in mosses is [Question ID = 52332]

1. prothallus. [Option ID = 89320]
2. capsule. [Option ID = 89321]
3. protonema. [Option ID = 89322]
4. sporophyte. [Option ID = 89323]

Correct Answer :-

- protonema. [Option ID = 89322]

62) The main function of centrosome is [Question ID = 52310]

1. secretion. [Option ID = 89232]
2. vesicle formation. [Option ID = 89233]
3. protein synthesis. [Option ID = 89234]
4. formation of spindle fibres. [Option ID = 89235]

Correct Answer :-

- formation of spindle fibres. [Option ID = 89235]

63) Galacturonic acid is predominant in [Question ID = 52284]

1. chloroplast membrane. [Option ID = 89129]
2. glyoxysome. [Option ID = 89131]
3. plasmamembrane. [Option ID = 89128]
4. cell wall. [Option ID = 89130]

Correct Answer :-

- cell wall. [Option ID = 89130]

64) What is the full form of HTML?

[Question ID = 52293]

1. Heavy Text Making Language [Option ID = 89167]
2. Heavy Text Markup Language [Option ID = 89165]
3. Hyper Text Markup Language [Option ID = 89164]
4. Hyper Text Making Language [Option ID = 89166]

Correct Answer :-

- Hyper Text Markup Language [Option ID = 89164]

65) Which of the following is a synthetic cytokinin? [Question ID = 52303]

1. Adenine [Option ID = 89204]
2. Kinetin [Option ID = 89206]
3. Zeatin [Option ID = 89207]
4. Isopentyl adenine [Option ID = 89205]

Correct Answer :-

- Kinetin [Option ID = 89206]

66) Which of the following is a viral promoter, active in plants? [Question ID = 52276]

1. pActin [Option ID = 89099]
2. p35S-CaMV [Option ID = 89096]
3. pUbiquitin [Option ID = 89097]
4. pRbcS [Option ID = 89098]

Correct Answer :-

- p35S-CaMV [Option ID = 89096]

67) Which of the following is a seed company? [Question ID = 52351]

1. Bennett, Coleman & Co. Ltd. [Option ID = 89396]
2. Monsanto [Option ID = 89397]





3. Biocor Ltd. [Option ID = 89399]
4. GlaxoSmithKline plc. [Option ID = 89398]

Correct Answer :-

- Monsanto [Option ID = 89397]

68) Which of the following books has been authored by Prof. P. Maheshwari? [Question ID = 52340]

1. Basics of Plant Cell Biology [Option ID = 89352]
2. The Flora of Delhi [Option ID = 89353]
3. An Introduction to the Embryology of Angiosperms [Option ID = 89355]
4. An Introduction to the Embryology of Gymnosperms [Option ID = 89354]

Correct Answer :-

- An Introduction to the Embryology of Angiosperms [Option ID = 89355]

69) Which of the following assays does NOT require antibodies? [Question ID = 52358]

1. Western analysis [Option ID = 89426]
2. Northern blotting [Option ID = 89427]
3. ELISA [Option ID = 89424]
4. ChIP [Option ID = 89425]

Correct Answer :-

- Northern blotting [Option ID = 89427]

70) Which of the following enzymes is membrane bound? [Question ID = 52287]

1. Citrate synthase [Option ID = 89140]
2. Isocitrate dehydrogenase [Option ID = 89143]
3. Succinate dehydrogenase [Option ID = 89142]
4. Alpha ketoglutarate dehydrogenase [Option ID = 89141]

Correct Answer :-

- Succinate dehydrogenase [Option ID = 89142]

71) Which of the following enzymes is important for regeneration of NAD⁺? [Question ID = 52286]

1. Isocitrate dehydrogenase [Option ID = 89139]
2. Alcohol dehydrogenase [Option ID = 89137]
3. Malate dehydrogenase [Option ID = 89136]
4. Alpha ketoglutarate dehydrogenase [Option ID = 89138]

Correct Answer :-

- Alcohol dehydrogenase [Option ID = 89137]

72) Which of the following enzymes uses a sulphur-containing coenzyme? [Question ID = 52290]

1. Citrate synthase [Option ID = 89152]
2. Isocitrate dehydrogenase [Option ID = 89155]
3. Alpha ketoglutarate dehydrogenase [Option ID = 89153]
4. Pyruvate dehydrogenase [Option ID = 89154]

Correct Answer :-

- Pyruvate dehydrogenase [Option ID = 89154]

73) Which of the following is NOT an example of a lipid? [Question ID = 52322]

1. Steroids [Option ID = 89282]
2. Fatty acids [Option ID = 89283]
3. Triglycerides [Option ID = 89281]
4. Glycosaminoglycan [Option ID = 89280]

Correct Answer :-

- Glycosaminoglycan [Option ID = 89280]

74) Which of the following elements is present in both proteins and nucleic acids? [Question ID = 52357]

1. Molybdenum [Option ID = 89421]
2. Nitrogen. [Option ID = 89423]





3. Sulphur [Option ID = 89420]
4. Magnesium [Option ID = 89422]

Correct Answer :-

- Nitrogen. [Option ID = 89423]

75) Which of the following is a vitamin? [Question ID = 52368]

1. Lauric acid [Option ID = 89467]
2. Folic acid [Option ID = 89464]
3. Citric acid [Option ID = 89465]
4. Phytic acid [Option ID = 89466]

Correct Answer :-

- Folic acid [Option ID = 89464]

76) Which of the following is a text-based database search engine? [Question ID = 52295]

1. Phylip [Option ID = 89175]
2. FASTA [Option ID = 89173]
3. ENTREZ [Option ID = 89174]
4. BLAST [Option ID = 89172]

Correct Answer :-

- ENTREZ [Option ID = 89174]

77) Which of the following activities is absent in bacterial DNA Polymerase I? [Question ID = 52362]

1. 5'-3' exonuclease. [Option ID = 89441]
2. 3'-5' exonuclease. [Option ID = 89442]
3. 3'-5' polymerase. [Option ID = 89443]
4. 5'-3' polymerase. [Option ID = 89440]

Correct Answer :-

- 3'-5' polymerase. [Option ID = 89443]

78) Which of the following is the main component of the commonly used household mosquito repellent? [Question ID = 52343]

1. Benzene [Option ID = 89366]
2. Pyrethrin [Option ID = 89367]
3. Pine oil [Option ID = 89365]
4. Phenol [Option ID = 89364]

Correct Answer :-

- Pyrethrin [Option ID = 89367]

79) Which of the following phenomena occurs in trp operon during "attenuation" in the presence of tRNAs charged with tryptophan? [Question ID = 52283]

1. Failure to terminate at the stop codon [Option ID = 89127]
2. Transcription initiation at the transcription start site [Option ID = 89125]
3. Transcription termination at the leader sequence [Option ID = 89124]
4. Recombination at the leader region [Option ID = 89126]

Correct Answer :-

- Transcription termination at the leader sequence [Option ID = 89124]

80) Which of the following crop genomes is the largest in size? [Question ID = 52274]

1. Chickpea [Option ID = 89088]
2. Tomato [Option ID = 89090]
3. Rice [Option ID = 89089]
4. Wheat [Option ID = 89091]

Correct Answer :-

- Wheat [Option ID = 89091]

81) Which of the following plants is a source of a common household insecticide? [Question ID = 52352]

1. Capsicum frutescens [Option ID = 89401]





2. Chrysanthemum cinerariaefolium [Option ID = 89402]
3. Digitalis lanata [Option ID = 89400]
4. Coleus blumei [Option ID = 89403]

Correct Answer :-

- Chrysanthemum cinerariaefolium [Option ID = 89402]

82) Which of the following has a closed ring structure? [Question ID = 52291]

1. b-carotene [Option ID = 89157]
2. Phytochrome [Option ID = 89156]
3. Chlorophyll [Option ID = 89158]
4. Phycobillin [Option ID = 89159]

Correct Answer :-

- Chlorophyll [Option ID = 89158]

83) Which of the following lipids are more suited for the function of energy storage? [Question ID = 52289]

1. Phospholipids [Option ID = 89148]
2. Galactolipids [Option ID = 89151]
3. Triglycerides [Option ID = 89150]
4. Sphingolipids [Option ID = 89149]

Correct Answer :-

- Triglycerides [Option ID = 89150]

84) Which one of the following is a Rabi crop? [Question ID = 52361]

1. Rice [Option ID = 89438]
2. Mustard. [Option ID = 89436]
3. Pearl millet. [Option ID = 89437]
4. Sugarcane. [Option ID = 89439]

Correct Answer :-

- Mustard. [Option ID = 89436]

85) Which one of the following statements is NOT true? [Question ID = 52317]

1. Tetrahymena mitochondrial DNA is linear in nature [Option ID = 89263]
2. Higher plant mitochondrial DNA is circular in nature [Option ID = 89260]
3. Plasmodium mitochondrial DNA is linear in nature [Option ID = 89262]
4. Chlamydomonas mitochondrial DNA is circular in nature [Option ID = 89261]

Correct Answer :-

- Chlamydomonas mitochondrial DNA is circular in nature [Option ID = 89261]

86) Smooth endoplasmic reticulum is the site of [Question ID = 52312]

1. protein synthesis. [Option ID = 89240]
2. amino acid synthesis. [Option ID = 89242]
3. carbohydrate synthesis. [Option ID = 89241]
4. lipid synthesis. [Option ID = 89243]

Correct Answer :-

- lipid synthesis. [Option ID = 89243]

87) Bacteriophages are [Question ID = 52307]

1. fungi infected bacteria. [Option ID = 89223]
2. viruses infecting bacteria. [Option ID = 89221]
3. bacteria which infect viruses. [Option ID = 89220]
4. bacteria infecting fungi. [Option ID = 89222]

Correct Answer :-

- viruses infecting bacteria. [Option ID = 89221]

88) Name two amino acids with net negative charge at pH 7.0: [Question ID = 52354]

1. Aspartic acid and glutamic acid [Option ID = 89408]





2. Proline and histidine [Option ID = 89410]
3. Glycine and valine [Option ID = 89411]
4. Lysine and Arginine [Option ID = 89409]

Correct Answer :-

- Aspartic acid and glutamic acid [Option ID = 89408]

89) Name two amino acids with positively charged R groups: [Question ID = 52353]

1. Histidine and Lysine [Option ID = 89405]
2. Alanine and Proline [Option ID = 89407]
3. Aspartic acid and Glutamic acid [Option ID = 89404]
4. Leucine and Valine [Option ID = 89406]

Correct Answer :-

- Histidine and Lysine [Option ID = 89405]

90) DNA binding sites of transcription factors in the promoters can be identified by [Question ID = 52348]

1. yeast-2-hybrid analysis. [Option ID = 89387]
2. chromatin Immunoprecipitation. [Option ID = 89385]
3. 5' RACE. [Option ID = 89384]
4. Southern blotting analysis. [Option ID = 89386]

Correct Answer :-

- chromatin Immunoprecipitation. [Option ID = 89385]

91) ENCODE expands to [Question ID = 52278]

1. Entire Compendium of DNA Elements. [Option ID = 89105]
2. Encyclopedia of DNA Elements. [Option ID = 89104]
3. Encyclopedia of Disaster Estimates. [Option ID = 89107]
4. Encyclopedia of Disease Estimates. [Option ID = 89106]

Correct Answer :-

- Encyclopedia of DNA Elements. [Option ID = 89104]

92) The type I intermediate filament present in nail and hair is made of [Question ID = 52313]

1. tubulins. [Option ID = 89247]
2. vimentins. [Option ID = 89245]
3. keratins. [Option ID = 89246]
4. lamins. [Option ID = 89244]

Correct Answer :-

- keratins. [Option ID = 89246]

93) Who was the governor of Reserve Bank of India at the time of demonetization? [Question ID = 52345]

1. D. Subbarao [Option ID = 89373]
2. Y. V. Reddy [Option ID = 89375]
3. Urjit R. Patel [Option ID = 89372]
4. Raghuram Rajan [Option ID = 89374]

Correct Answer :-

- Urjit R. Patel [Option ID = 89372]

94) Who was given Nobel Prize for discovery of restriction enzymes? [Question ID = 52275]

1. A. Klug [Option ID = 89093]
2. W. Arber [Option ID = 89094]
3. P. Berg [Option ID = 89092]
4. F. Sanger [Option ID = 89095]

Correct Answer :-

- W. Arber [Option ID = 89094]

95) A technique of using very small metal particles coated with desired gene in the gene transfer is called [Question ID = 52329]

1. microinjection. [Option ID = 89309]





2. biolistics. [Option ID = 89311]
3. lipofection. [Option ID = 89310]
4. electroporation. [Option ID = 89308]

Correct Answer :-

- biolistics. [Option ID = 89311]

96) EcoRI recognizes six bases to make a cut in DNA. In a large genome, what would be the expected frequency of occurrence of the recognition site? [Question ID = 52277]

1. 16384 bp [Option ID = 89103]
2. 24 bp [Option ID = 89100]
3. 1024 bp [Option ID = 89102]
4. 4096 bp [Option ID = 89101]

Correct Answer :-

- 4096 bp [Option ID = 89101]

97) The DNA:protein ratio in eukaryotic chromatin is

[Question ID = 52318]

1. 4:1. [Option ID = 89266]
2. 2:1 [Option ID = 89265]
3. 1:2 [Option ID = 89267]
4. 3:1. [Option ID = 89264]

Correct Answer :-

- 1:2 [Option ID = 89267]

98) Which has the largest genome size amongst the following? [Question ID = 52294]

1. Human [Option ID = 89169]
2. Mouse [Option ID = 89171]
3. Rice [Option ID = 89168]
4. Wheat [Option ID = 89170]

Correct Answer :-

- Wheat [Option ID = 89170]

99) Who is the current chief of Indian Air Force? [Question ID = 52342]

1. Birender Singh Dhanoa [Option ID = 89361]
2. Bikram Singh [Option ID = 89362]
3. Dalbir Singh [Option ID = 89360]
4. V. K. Singh [Option ID = 89363]

Correct Answer :-

- Birender Singh Dhanoa [Option ID = 89361]

100) You are required to prepare 3M sodium chloride solution (NaCl) for a molecular biology experiment. The atomic number of Na-11, Cl-17 and atomic weight of Na-23, Cl-35.5. How much NaCl salt would you weigh for preparing 100 ml solution? [Question ID = 52305]

1. 8.4 g [Option ID = 89212]
2. 2.8 g [Option ID = 89215]
3. 5.85 g [Option ID = 89214]
4. 17.55 g [Option ID = 89213]

Correct Answer :-

- 17.55 g [Option ID = 89213]

