



KCET BIOLOGY ANSWER KEYS (18.04.2018)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D	C	C	D	B	B	C	A	C	A	A	B	A	C	A
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
B	C	B	C	B	D	B	C	B	A	D	A	D	C	B
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
A	B	D	C	C	B	C	B	D	C	B	D	B	D	B
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	B	C	B	A	C	A	C	B	A	B	C	A	C	A

1. AUG-Methionine, CUA –leucine, GUG-valine, CGU-Arginine, GCC-Alanine.
2. Point mutation
3. The transcription unit has a **promoter** on the **5'** end (upstream) of the **coding strand** and terminator on the **3'** end
4. UTR's are untranslated regions present before start codon and after stop codon on m RNA.
5. The palindrome in DNA is a sequence of base pairs that reads same on the two strands when orientation of reading is kept the same.
6. As DNA is present inside the nucleus.
7. Lactose is inducer .It binds to repressor protein and operon is switched on.
8. **methane-ammonia**-hydrogen mixture was taken in **ratio** of 2:2:1
9. Skeletal structure of cannabinoid molecule.
10. $p=0.6, q=0.4$ hence $2pq$ is 48 %
11. Interferons are used in treatment of cancer and rest all options given cause cancer.Hence interferons are odd one out.
12. Viral RNA is introduced into the host cell which later undergoes reverse transcription.
13. **Metastatic** cancer is cancer that **spreads** from its site of origin to another part of the body.
14. **Inbreeding** results in homozygosity, which can increase the chances of offspring being affected by recessive or **deleterious** traits.

15. The entire collection (of plants/seeds) having all the diverse alleles for all genes in a given crop is called germplasm collection.
16. Flocs are masses of aerobic bacteria and fungi that help in biological treatment of sewage.
17. Option C
18. Biolistic or gene gun method.
19. No REN extracted from Agrobacterium
20. RNA interference involves silencing of a specific mRNA due to a complementary dsRNA molecule that binds to and prevents translation of the mRNA (silencing).
21. During hybridisation
22. RNA interference involves silencing of a specific mRNA due to a complementary dsRNA molecule that binds to and prevents translation of the mRNA (silencing).
23. **Brood parasites** are organisms that rely on others to raise their young.
24. logistic growth curve
25. NPP (Net Primary Productivity) is GPP-R
26. Productivity, decomposition, energy flow and nutrient cycling are functional aspects of ecosystem.
27. The **species–area** relationship describes the relationship between the **area** of a habitat and the number of **species** found within that **area**.
28. Presence of exotic species is not a major feature of hot spots
29. High concentrations of DDT disturbs calcium metabolism in birds, which causes thinning of eggshell and their premature breaking, eventually causing decline in bird populations
30. UV-B radiation can damage the cornea leading to "**snow blindness**"
31. Option A
32. Taxonomic hierarchy in Ascending order
33. Option D
34. Floral diagram of Brassicaceae.
35. Xylem and phloem on same radius –conjoint
36. Tissue present between xylem and phloem in root
37. SER helps in synthesis of lipids .
38. Velocity of reaction on Y axis and substrate concentration on X axis

39. C₄ cycle ...carbon dioxide fixation in mesophyll cells by PEP CARBOXYLASE and synthesis of sugars in bundle sheath cells by RUBISCO
40. Link reaction between glycolysis and Krebs's cycle
41. In the alveoli, where there is high pO₂, low pCO₂, lesser H⁺ concentration and lower temperature, the factors are all favourable for the formation of oxyhaemoglobin.
42. Gastric juice-protein digestion partially, saliva-carbohydrate digestion partially. Bile juice has no enzymes and pancreatic juice has enzymes for digesting proteins, carbohydrates and fats.
43. PCT has cuboidal epithelium with brush border
44. Incompatible blood group of mother and foetus when mother is rh negative.
45. Algae, bryophytes and pteridophytes have independent gametophytes. Gymnosperms and angiosperms have dependent Gametophytes.
46. Hormones of Adrenal medulla
47. Ax bud is absent at internodes
48. Intine is continuous with germ pores
49. Option B
50. Generative cell divides forming two male gametes and hence at 3 celled stage, two male gametes, one vegetative cell
51. As flowers are closed
52. Differentiation of spermatids to sperm
53. Ampulla
54. Foetal ejection reflex
55. Option A
56. Except increased MMR
57. As gene controlling blood groups has three alleles (Multiple Alleles) and A and B alleles are dominant to each other (co dominance)
58. CAU-Histidine, CCU-Proline, AAA-Lysine, CUG-Leucine
59. Polygenic trait and quantitative inheritance, more recessive genes – lighter skin
60. Female is carrier and male is normal and hence no daughters will be colour blind.

Byju's