



Sample Paper-04

Class 12th NEET (2024)

ZOOLOGY

ANSWER KEY

1. (4)
2. (3)
3. (3)
4. (4)
5. (3)
6. (1)
7. (4)
8. (2)
9. (3)
10. (1)
11. (3)
12. (4)
13. (4)
14. (2)
15. (4)
16. (4)
17. (2)
18. (2)
19. (4)
20. (3)
21. (2)
22. (2)
23. (1)
24. (1)
25. (3)

26. (1)
27. (1)
28. (1)
29. (3)
30. (2)
31. (2)
32. (4)
33. (4)
34. (1)
35. (3)
36. (1)
37. (2)
38. (3)
39. (1)
40. (1)
41. (3)
42. (3)
43. (2)
44. (4)
45. (4)
46. (1)
47. (2)
48. (4)
49. (4)
50. (4)



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| <p>1. (4)
Secondary oocyte, secondary spermatocyte, ootid and ova all are haploid as spermatid.</p> <p>2. (3)
(A), (B), (C), (D) and (E)</p> <p>3. (3)
Ovulatory phase, at which both LH and FSH attain a peak level.</p> <p>4. (4)
The embryo develops into a hollow ball with a fluid filled interior does not occur during implantation.</p> <p>5. (3)
Development stage – Blastocyst
Site of occurrence - Uterine wall</p> <p>6. (1)
The family planning programs in India were initiated in 1951.</p> <p>7. (4)
IUDs don't prevent ovulation.</p> <p>8. (2)
(A), (C), (D) and (E)</p> <p>9. (3)
(I) – (E); (II) – (B); (III) – (D); (IV) – (F); (V) – (C); (VI) – (A)</p> <p>10. (1)
Atmosphere of primitive earth was devoid of free oxygen.</p> <p>11. (3)
Neo-Darwinism is more close to Modern synthetic theory.</p> <p>12. (4)
Alpha - 1 antitrypsin used to treat emphysema.</p> <p>13. (4)
The chance of elimination of genes from a small population is an example of genetic drift.</p> <p>14. (2)
When more than one adaptive radiation appears to have occurred in an isolated geographical area, it is called convergent evolution.</p> | <p>15. (4)
The concept of chemical evolution is based on the possible origin of life by combination of chemicals under suitable environmental conditions.</p> <p>16. (4)
(A), (B) and (C)</p> <p>17. (2)
Plasmodium parasite reproduces in liver by asexual reproduction and in female <i>Anopheles</i> by sexual reproduction.</p> <p>18. (2)
(A) – interferon, virus; (B) – Innate; (C) – Acid</p> <p>19. (4)
Metastasis is the process of movement of cancerous cells from one organ to another.</p> <p>20. (3)
LSD is Lysergic acid diethyl amide.</p> <p>21. (2)
Both the statements are correct but the given reason is not the correct explanation. Polymerase chain reaction is used in DNA amplification. Ampicillin resistance gene is a selectable marker that helps to check transformation by selection of transformants.</p> <p>22. (2)
<i>Gambusia</i> fish have been introduced to lakes and ponds in India to control a deadly disease. They consume larvae of <i>Anopheles</i>.</p> <p>23. (1)
<i>Archaeopteryx</i> is not living fossil</p> <p>24. (1)
A-III, B-IV, C-II, D-I</p> <p>25. (3)
Insertional inactivation of beta-galactosidase leads to colourless colonies.</p> <p>26. (1)
In recombinant DNA technology, the term vector refers to plasmid that can transfer foreign DNA into a living cell.</p> <p>27. (1)
(A) – (IV); (B) – (I); (C) – (II); (D) – (III)</p> |
|--|--|



28. (1)
Both (A) and (R) are true but (R) is not the correct explanation of (R).
29. (3)
Both (1) and (2).
30. (2)
The inactive protoxin gets converted into active form in the insect gut.
31. (2)
Humulin is a human insulin synthesised by genetically engineered *E. coli*.
32. (4)
Adenosine deaminase enzyme was targeted during the first clinical gene therapy given in 1990 to a 4 year old girl.
33. (4)
All of these
34. (1)
Both assertion and reason are correct and reason is correct explanation of assertion.
35. (3)
Wuchereria bancrofti causes elephantiasis. It is transmitted by female *Culex* mosquito.
36. (1)
(a) – seminiferous tubules; (b) – epididymis; (c) – vas deferens; (d) – interstitial cells; (e) – testosterone
37. (2)
Endometrium regenerates – 5–10 days.
38. (3)
Embryo's heart is formed after one month of pregnancy.
39. (1)
Vasectomy has no effect on the sexual life of male because he can also ejaculate and has normal secretion of sex hormones in blood.
40. (1)
(a) – test tube baby; (b) – 1951; (c) – vasectomy, tubectomy; (d) Assisted reproductive technology
41. (3)
Mutations are mainly responsible for variation in organisms.
42. (3)
Viviparity is considered to be more evolved because the young ones are protected inside the mother's body and are looked after they are born leading to more chances of survival.
43. (2)
Increased production of antibiotics by the fungus *Penicillium* sp. has evolved mainly as a result of artificial selection.
44. (4)
(a), (b) and (c)
45. (4)
HIV infection does one usually show symptoms of AIDS when HIV replicates rapidly in helper T lymphocytes and damages large numbers of these.
46. (1)
The chemical shown below is of cannabinoid molecule.
47. (2)
Production of a human protein in bacteria by genetic engineering is possible because genetic code is universal.
48. (4)
(A), (B) and (C)
49. (4)
All of these.
50. (4)
All of these.

