

BALABHADRA SKILL DEVELOPMENT ACADEMY
SCIENCE QUESTION BANK - 18

Time: 1 Hour

Full marks: 67

Pass marks: 53

1. _____ of various types can be taken as an indication of life.
2. Maintenance of life requires processes like _____, _____, _____ and _____.
3. _____ nutrition involves the intake of simple inorganic materials from the environment and using an external energy source like the Sun to synthesise complex high-energy organic material.
4. _____ nutrition involves the intake of complex material prepared by other organisms.
5. In human beings, the food eaten is broken down by various steps along the _____ canal and the digested food is absorbed in the _____ to be sent to all cells in the body.
6. During the process of respiration, organic compounds such as _____ are broken down to provide energy in the form of _____.
7. _____ is used to provide energy for other reactions in the cell.
8. _____ may be aerobic or anaerobic.
9. _____ respiration makes more energy available to the organism.
10. In human beings, the transport of materials such as oxygen, carbon dioxide, food and excretory products is a function of the _____ system.
- 10(a) In human beings, circulation system consists of _____, _____ and _____.
11. In highly differentiated plants, transport of water, minerals, food and other materials is a function of the _____ tissue which consists of _____ and _____.
12. In human beings, excretory products in the form of soluble nitrogen compounds are removed by the _____ in the kidneys.
13. _____ use a variety of techniques to get rid of waste material.
14. _____ and _____ are the functions of the nervous system and hormones in our bodies.
15. The responses of the nervous system can be classified as _____, _____ and _____.
16. The nervous system uses _____ to transmit messages.
17. The nervous system gets information from _____ and acts through _____.
18. Chemical coordination is seen in both _____ and _____.
19. _____ produced in one part of an organism move to another part to achieve the desired effect.
20. A _____ mechanism regulates the action of the hormones.
21. _____, unlike other life processes, is not essential to maintain the life of an individual organism.
22. Reproduction involves creation of a _____ and _____ by the cell involved in the process.
23. In _____, many bacteria and protozoa simply divide into two or more daughter cells.
24. Organisms such as _____ can regenerate if they are broken into pieces. They can also give out buds which mature into new individuals.

25. Roots, stems and leaves of some plants develop into new plants through _____ propagation.
26. _____ reproduction involves two individuals for the creation of a new individual.
- 26(a) In _____, new generation is created from a single individual.
27. DNA copying mechanisms creates _____ which are useful for ensuring the survival of the species.
- 27(a) _____ allow for greater variation in reproduction.
28. Reproduction in flowering plants involves transfer of _____ from _____ to the _____ which is referred to as pollination.
- 28(a) Pollination is followed by _____.
29. Changes in the body at puberty, such as increase in breast size in girls and new facial hair growth in boys, are signs of _____ maturation.
30. Sexual reproduction in human beings involves the introduction of sperm in the _____ of the female.
- 30(a) _____ produces sperm.
31. In female, fertilisation occurs in the _____.
- 31(a) Contraception to avoid pregnancy is achieved by use of _____, _____ and _____.
32. _____ arising during the process of reproduction can be inherited.
- 32(a) Variations during reproduction leads to _____.
33. Sexually reproducing individuals have _____ copies of genes for the same trait. If the copies are not identical, the trait that gets expressed is called the _____ trait and the other is called the _____ trait.
34. Traits in one individual may be inherited separately, giving rise to new combinations of traits in the offspring of _____ reproduction.
35. Sex is determined by _____ in various species.
36. In human beings, the sex of the child depends on whether the paternal chromosome is _____ (for girls) or _____ (for boys).
37. Variations in the species may confer _____ or merely contribute to _____.
38. Changes in the non-reproductive tissues caused by _____ are not inheritable.
39. _____ may take place when variation is combined with geographical isolation.
40. Evolutionary relationships are traced in the _____ of organisms.
41. Evolution can be worked out by the study of _____ and _____.
42. Complex organs may have evolved because of the _____ of even the intermediate stages.
43. Organs or features may be adapted to new functions during the course of _____.
44. Light travels in _____.
45. _____ and _____ form images of object.
46. Images can be either _____ or _____, depending on the position of the object.
47. The refracting surfaces obey the laws of _____.
- 47(a) Reflecting surfaces obey laws of _____.
48. _____ Sign Conventions are followed for spherical mirrors and lenses.
49. The focal length of a spherical mirror is equal to _____.
50. The magnification produced by a spherical mirror is the ratio of _____ to _____.
51. A light ray travelling obliquely from a _____ medium to a _____ medium bends away from the normal.

52. A light ray bends towards the normal when it travels obliquely from a ____ to a ____ medium.
53. Light travels in vacuum with a speed of _____ .
- 53(a) Speed of light is ____ in different medium.
54. The refractive index of a transparent medium is the ratio ____ to ____.
55. Power of a lens is equal to ____ .
56. The SI unit of power of a lens is ____ .
57. Relationship between object distance (u), image distance (v) and focal length (f) of spherical mirror is ____.
58. In refraction, emergent ray is ____ to the direction of incident ray.

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SCIENCE QUESTION BANK – 18 (ANSWER)

1. Movement
2. nutrition, respiration, transport of material within the body, excretion of waste products
3. Autotrophic
4. Heterotrophic
5. alimentary, small intestine
6. glucose, ATP
7. ATP
8. Respiration
9. Aerobic
10. circulatory
- 10(a) Heart, Blood, Blood Vessels
11. vascular, xylem, phloem
12. nephrons
13. Plants
14. Control, coordination
15. reflex action, voluntary action, involuntary action
16. electrical impulses
17. sense organs, muscles
18. plants, animals
19. Hormones
20. feedback
21. Reproduction
22. DNA copy, additional cellular apparatus
23. fission
24. hydra
25. vegetative
26. Sexual
- 26(a) Asexual reproduction
27. variations
- 27(a) sexual reproduction
28. pollen grains, anther, Stigma
- 28(a) fertilisation
29. sexual
30. vagina
- 30(a) testes
31. fallopian tube
- 31(a) Condoms, Oral peels, copper-T
32. Variations
- 32(a) Increased Survival
33. two, dominant, recessive
34. sexual
35. different factors

36. X,Y
37. survival advantages, the genetic drift
38. environmental factor
39. Speciation
40. classification
41. living species, fossils
42. survival advantage
43. evolution
44. straight lines
45. Mirrors, Lenses
46. Real, virtual
47. refraction
- 47(a) Reflection
48. New Cartesian
49. half its radius of curvature
50. the height of the image, the height of the object
51. denser, rarer
52. rarer, denser
53. 3×10^8 m/s
- 53(a) different
54. speed of light in vacuum, speed of light in that medium
55. reciprocal of focal length
56. dioptre
57. $1/u + 1/v = 1/f$
58. Parallel