32 C
Ex. A plane mirror is a mirror with a flat and smooth reflecting surface. Reflection from a smooth surface like that of a mirror is alled regular reflection. Images are formed by regular reflection.
* The image formed by a plane mirror is erect.
* It is virtaul (cannot be obtained on a screen) and is of the same size as the object. This is because the light rays do not actually pass through the image. So, it cannot be focused on a screen placed at the location where the image is.
* The image is at the same distance behind the mirror as the object is in front of it.
* The left side of the object is seen on the right side in the image, and right side of the object appears to be on the left side in the image. This is known as lateral inversion.

33 D
Ex.

34 B
Ex.

35 B
Ex. * Femur is the thigh bone. It is the longest and strongest bone in the human body.
* The sternum or breastbone is a long flat bone located in the central part of the chest. It connects to the patella, also known as the kneecap, is a thick, circular-triangular bone which articulates with the femir (thigh bone) and covers and protects the anterior articular surface of the knee joint.

36 D
Ex.

37 C
Ex. * ATP is the energy currency for most cellular processes. The energy released during the process of cellular respiration is used to make an ATP molecule from ADP and inorganic phosphate.
* Endothermic processes (processes that consume energy) in the cel then use this ATP to drive the reactions. When the terminal phosphate linkage in ATP is broken using water, the energy equivalent to 30.5 kJ/mol is released.
* Hence, both the statements are correct.

38 B
Ex.

39 D
Ex.

40 B
Ex.

41 A
Ex. * Arteries are the vessels which carry blood away from the heart to various organs of the body. Since the blood emerges from the heart under high pressure, the arteries have thick, elastic walls.
* Veins collect the blood from different organs and bring it back to the heart. They do not need thick walls because the blood is no longer under pressure, instead they have valves that ensure that the blood flows only in one direction.
* Hence, only statement I is correct.

42 D
Ex.

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43 C
Ex.

44 C
Ex. Hydrogen fuel cell is a fuel cell that combines hydrogen and oxygen to produce electricity with water and steam as the only by products. It is a climate frinedly fuel as it does not emit carbon dioxide or particulate matter as the case with conventional fuels like diesel, coal etc.
Hence, both the statements are correct.

45 B
Ex.

46 A
Ex.

47 C
Ex.

48 B
Ex.

49 C
Ex.

50 D
Ex.

51 D
Ex.

52 A
Ex.

53 B
Ex.

54 B
Ex.

55 C
Ex.

56 B
Ex.

57 D
Ex.

58 C
Ex.

59 D
Ex.

60 D
Ex.

61 B
Ex.

62 B
Ex.

63 D
Ex.

64 A
Ex.

65 C
Ex.

66 A
Ex.

67 B
Ex.

68 A
Ex.