

# VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

B

Test Booklet Code: 190

Test Booklet No: 580081

Total Ques: 100

- 1 B  
Ex.
- 2 D  
Ex. Burning biomass emits large amounts of pollutants like burning other solid fuels such as coal. Burning organic material emits Particulate Matter (PM), Nitrogen Oxide (NO<sub>x</sub>), Carbon Monoxide (CO), Sulphur Dioxide (SO<sub>2</sub>), Lead (Pb) Mercury and hazardous air pollutants.
- 3 A  
Ex. Carbofuran, methyl parathion, phorate and triazophos chemicals are used as pesticides in India to control insects in a wide variety of field crops. Carbofuran is one of the most toxic carbamate (drived from carbamic acid) pesticides. Parathion or methyl parathion has been banned in various countries due to its high toxicity to humans. Triazophos is a chemically toxic insecticide which could lead to headaches, blurred vision, dizziness etc., in humans. Phorate is also a highly toxic chemical compound, used as an insecticide.
- 4 B  
Ex. Augmented Reality is a technology where the objects that reside in the real world are enhanced by computer-generated perceptual information. It allows individuals to be present in the world and improves the experience using the camera of smartphone or PC. Virtual reality is the use of computer technology to craete a simulated environment. It immeres the user by making them feel like they are experiencing simulated reality. It replaces the user's real world environment with a simulated one. Its applications include entertainment and educational purposes.
- 5 A  
Ex.
- 6 A  
Ex. Cas9 protein has been in news for its property of being molecular scissors used in targeted gene editing. It is also known as CRISPR associated protein 9. It is heavily utilised in genetic engineering application's. It's main function is to cut DNA. So it can alter cells genome. It plays an important role in the immunological defense of certain bacteria against DNA viruses.
- 7 C  
Ex. India successfully conducted its first anti-satellite (ASAT) missile test on 27 March, 2019 destroying low earth orbit satellite in space by using a missile that covered a distance of 300 km to engage the target. Let us tell you that India became the fourth country to acquire such type of modern capability. The codename of ASAT is Mission Shakti.
- 8 C  
Ex. The Kerala State Aids Control Society (KSACS) announced to reserve a government job for HIV positive candidates. A vacancy has been reserved in the office of KSACS for HIV positive candidates for the post of coordinator. The reason behind is that the presence of such a person will improve coordination and communication with groups at risk and ensure effective prevention.
- 9 B  
Ex. In a recent development, scientists have found particles of a rare of iron (Fe-60) in Antarctica snow. It is believed that they have been originated from nearby supernovae. It will help in understanding the structure and origin of interstellar dust clouds, according to scientists.
- 10 A  
Ex. is the second mission to the moon which was launched on 22 July, 2019 by India's Geosynchronous Satellite Launch Vehicle (GSLV Mk III). It reached lunar orbit on 19 August, 2019. Despite the crash-landing of the Lander, ISRO confirmed that all the instruments are onboard the orbiter and are working well.
- 11 A  
Ex. The recipients of the Nobel Prize in Chemistry 2019 are John B. Goodenough, M. Stanley Whittingham and Akira Yoshino for the development of lithium-ion batteries. Do you know that this lightweight, rechargeable and powerful battery can be used in mobile phones to laptops, electric vehicles? Not only this, it can even store significant amounts of energy from solar and wind power, making possible a fossil fuel-free society.
- 12 D  
Ex. Bipolar Disorder is a mental health condition in which patients undergo intense mood shifts that oscillate between depression and elevated moods. After researching, scientists found that such patients carry some residual impairment in terms of processing of information even in their 'normal' phases. The study has been done by jointly researchers from the National Institute of Mental Health and Neuroscience (Nimhans), Bengaluru and All India Institute of Medical Sciences, New Delhi.
- 13 A  
Ex. satellite was launched by Nepal successfully from Virginia in the United States on 18 April, 2019. Its aim is to gather detailed geographical information of the Himalayan nation.
- 14 D  
Ex. Zika virus was first detected in Uganda in 1947 by the scientists when they were researching on yellow fever. Zika Virus was named after the Zika Forest of Uganda. In the local language word, Zika means overgrown. In the research, scientists came across a different and apparently harmless virus transmitted by mosquitoes to monkeys and they named it as Zika.



- 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 called regular reflection. Images are formed by regular reflection.  
\* The image formed by a plane mirror is erect.  
\* It is virtual (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 femur (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 cell 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.

- 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 friendly 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.

69 A  
Ex.  
70 A  
Ex.  
71 D  
Ex.  
72 B  
Ex.  
73 D  
Ex.  
74 B  
Ex.  
75 D  
Ex.  
76 D  
Ex.  
77 A  
Ex.  
78 C  
Ex.  
79 B  
Ex.  
80 C  
Ex.  
81 C  
Ex.  
82 C  
Ex.  
83 B  
Ex.  
84 B  
Ex.  
85 A  
Ex.  
86 C  
Ex.  
87 D  
Ex.  
88 D  
Ex.  
89 A  
Ex.  
90 D  
Ex.  
91 C  
Ex.  
92 A  
Ex.  
93 B  
Ex.  
94 A  
Ex.  
95 B  
Ex.  
96 D  
Ex.

INSTITUTE VAJIRAO INSTITUTE VAJIRAO INSTITUTE VAJIRAO INSTITUTE VAJIRAO INSTITUTE VAJIRAO INSTITUTE VAJIRAO INSTITUTE

97 A  
Ex.  
98 D  
Ex.  
99 C  
Ex.  
100 A  
Ex.