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PTQ

**Prelims
Through
Questions**

for

ESE 2021

General Studies & Engineering Aptitude

Day 4 of 11

Q.141 - Q.180

(Out of 500 Questions)

Basics of Energy and Environment + ICT

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Q.141 A biotic interaction of two different species where the one organism is inhibited or destroyed while the other organism remains unaffected, is known as:

- (a) Predation (b) Parasitism
(c) Amensalism (d) Commensalism

141. (c)

Q.142 Stockholm Convention is an international treaty that aims to eliminate or restrict the production and use of:

- (a) Nuclear wastes (b) Persistent Organic Pollutants
(c) Mercury (d) Electronic waste

142. (b)

Stockholm Convention is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of Persistent Organic Pollutants (POPs).

Q.143 With reference to Environmental Impact Assessment (EIA), consider the following statements:

1. EIA enables the decision makers to analyse the effect of developmental activities on the environment well before the developmental project is implemented.
2. Category-A projects require mandatory environmental clearance and thus they do not undergo the screening process.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

143. (c)

Q.144 Biofertilizers increase the nutrients of host plants when applied to their seeds, plant surface and soil. Which among the following nutrients can be enhanced by biofertilizers?

1. Potassium
2. Nitrogen
3. Phosphorous

Select the correct answer using the codes given below:

- (a) 1 only (b) 1 and 2 only
(c) 3 only (d) 1, 2 and 3

144. (d)

Q.145 Consider the following statements:

1. The area or land recorded as forests under the government records is known as forest cover.
2. A forest cover may or may not be a part of forest area.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

145. (b)

The area recorded as forests in the government records is called forest area. Forest cover refers to all lands more than one hectare in area, with a tree canopy density of more than 10 percent irrespective of ownership and legal status. Such lands may not necessarily be a recorded forest area.

Q.146 Which one of the following statements is/are NOT correct about 'Wetlands International'?

- (a) It works to sustain and restore wetlands and their resources.
(b) It is an independent and not-for-profit organization.
(c) Wetlands International's work ranges from research, advocacy and engagement with Governments.
(d) None of the above

146. (d)

Wetlands International is a global organisation that works to sustain and restore wetlands and their resources for people and biodiversity. It is an independent, not-for-profit, global organisation, supported by government and NGO membership from around the world. It was founded in 1937 as the International Wildfowl Inquiry.

Q.147 Consider the following statements:

1. Tetraethyl Lead (TEL) works as an antiknock agent and increases the efficiency of a vehicle.
2. It also works as a catalyst and helps in collecting particulate pollutants.
3. Platinum-Palladium and Rhodium are used as catalyst in Catalytic Convertors.

Which of the above statement(s) is/are INCORRECT?

- (a) 1 only (b) 1 and 2 only
(c) 2 only (d) 2 and 3 only

147. (c)

Tetraethyl lead (TEL) would tend to clog up catalytic convertors, making them inoperable. So, unleaded petrol should be used in vehicles because it will inactive the catalyst.

Q.148 Which one of the following statements is NOT correct?

- (a) Presence of organic wastes in water decreases the Dissolved Oxygen (DO) content of the water.
(b) Increase in organic wastes also increases Biological Oxygen Demand (BOD) of water.
(c) Lower BOD indicates less Dissolved Oxygen (DO).
(d) Water pollution by organic wastes is normally measured in terms of BOD.

148. (c)

The higher value of BOD indicates low DO content of water. Since BOD is limited to biodegradable materials, therefore, it is not a reliable method of measuring pollution load in water.

Q.149 Consider the following statements:

1. Green Buildings conserve and restore natural resources, human health and environment.
2. GRIHA rating works on per capita energy consumption and LEED is based on absolute number.
3. LEED is benchmark with worldwide standards whereas GRIHA is India based rating system.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2 and 3

149. (b)

LEED rating works on per capita energy consumption and GRIHA is based on absolute number.

Q.150 The term "Dubai Pathway" was sometimes in news. It is associated with which of the following?

- (a) Kyoto Protocol (b) Montreal Protocol
(c) UNFCCC (d) World Bank

150. (b)

The "Dubai pathway on hydrofluorocarbons" decision committed countries to find an agreement on cutting HFCs in 2016 under the 1987 Montreal Protocol. It succeeded in cutting the use of chlorofluorocarbons to help protect the ozone layer.

Q.151 Biogas is an environmentally friendly and renewable source of energy which can help in reduction of pollution. Which among the following are main constituents of Biogas?

- (a) Hydrogen and sulphur dioxide
(b) Methane and carbon dioxide
(c) Carbon dioxide and sulphur dioxide
(d) Methane and nitric oxide

151. (b)

Biogas is produced by anaerobic action of microorganism that feeds on animal and agricultural waste. It is a renewable source of energy. It is made up of methane (60- 70%), carbon dioxide (25-50%), nitrogen (0-10%) and hydrogen (0-1%).

Q.152 The "Blue Baby Syndrome" is a disease, in which the infant's blood is unable to carry enough oxygen to body cells and tissue. It is caused by the contamination of which of the following minerals?

- (a) Nitrate (b) Sulphate
(c) Cobalt (d) Lead

152. (a)

Blue Baby Syndrome is caused when excess nitrates in drinking water reacts with haemoglobin to form non-functional methaemoglobin which impairs oxygen transport. It may also cause respiratory and digestive problems in adults.

Q.153 Consider the following statements about National Green Tribunal (NGT):

1. It provides effective and expeditious disposal of cases relating to environmental protection and conservation of Forests.

2. It has power of enforcement of any legal right relating to environment.
3. The Tribunal is mandated to make an endeavour for disposal of applications or appeals finally within 6 months of filing the same.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) 2 and 3 only (d) 1, 2 and 3

153. (d)

Q.154 Consider the following statements:

1. TRAFFIC, the Wildlife Trade Monitoring Network is a joint programme of World Wide Fund for Nature (WWF) and International Union for the Conservation of Nature (IUCN).
2. TRAFFIC is an inter-governmental organization working globally on trade in wild animals and plants.

Which of the following statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

154. (a)

- TRAFFIC, the Wildlife Trade Monitoring Network, is the leading non-governmental organization working globally on the trade of wild animals and plants in the context of both biodiversity and sustainable development. It was founded in 1979 as a strategic alliance of the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN).
- The organization aims to 'ensure that trade in wild plants and animals is not a threat to the conservation of nature'.

Q.155 Consider the following statements regarding Global Environment Facility (GEF):

1. GEF is a financial mechanism that provides grants to under-developed countries especially in African region for projects related to environment enhancement.
2. It is jointly managed by the United Nations Development Programme (UNDP), the World Bank and the United Nations Environment Programme (UNEP).
3. India is a donor as well as recipient of Global Environment Facility.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2 and 3

155. (c)

Global Environment Facility (GEF) is a multilateral financial mechanism that provides grants to developing countries for projects that benefit global environment and promote sustainable livelihoods in local communities. GEF was established during the Rio Earth Summit of 1992. It is based in Washington DC. United States.

Q.156 Consider the following Atmospheric gases:

1. Carbon dioxide (CO₂)
2. Carbon Monoxide (CO)
3. Water Vapour
4. Methane (CH₄)

Which of the above gases are considered as naturally occurring Greenhouse Gases?

- (a) 1 and 2 only (b) 1 and 3 only
(c) 2, 3 and 4 only (d) 1, 3 and 4 only

156. (d)

Naturally occurring greenhouse gases include Water Vapour, Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), and ozone (O₃).

Q.157 The Ecological Footprint is a measure of human demand on the Earth's ecosystems and ecological impact of:

1. Consumption of food and forest produces.
2. Absorption of carbon dioxide from fossil fuel use.
3. Land use for roads and buildings.

Select the correct answer using the codes given below:

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2 and 3

157. (d)

Q.158 A biological community made up of living organisms and non-living components is known as:

- (a) Ecosystem (b) Population
(c) Biotic environment (d) None of the above

158. (a)

An ecosystem is a community of plants and animals also includes abiotic components, interacting with each other in a given area. Organisms live together to benefit one another. In an ecosystem each component has its own role to play.

Q.159 Which one of the following is not included in the National Air Quality Index?

- (a) Ozone (b) Carbon Monoxide
(c) Methane (d) Lead

159. (c)

The Air Quality Index is a part of the government's Swachh Bharat Abhiyan. The index will measure eight major pollutants, namely, particulate matter (PM 10 and 2.5), nitrogen dioxide, sulphur dioxide, ozone, carbon monoxide, ammonia and lead.

Q.160 Statement (I): Tidal energy can be extracted from the tides formed on the earth because of the gravitational effect of the sun and moon.

Statement (II): The periodical rise and fall of the sea level, due to the attraction of the sun and the moon can be used to produce electric power.

- (a) Both Statement (I) and Statement (II) are true and Statement (II) is the correct explanation of Statement (I).
(b) Both Statement (I) and Statement (II) are true but Statement (II) is not a correct explanation of Statement (I).
(c) Statement (I) is true but Statement (II) is false.
(d) Statement (I) is false but Statement (II) is true.

160. (a)

Q.161 Which of the following software has been used in creating Bitcoin technology 2.0?

- (a) Linux (b) Ethereum
(c) Orical (d) Turbo

161. (b)

Ethereum software is the basis of creating blockchain 2.0.

Q.162 Consider the following statements about Government e-Marketplace (GeM) initiative:

1. It is created for the purpose of online procurement of goods and services required by various government organisations.
 2. It is based on government to citizen model of e-Governance.
 3. It aims to enhance transparency, efficiency and speed in public procurement.
- Which of the above statements are correct?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

162. (c)

It is based on Government to Business model of e-Governance.

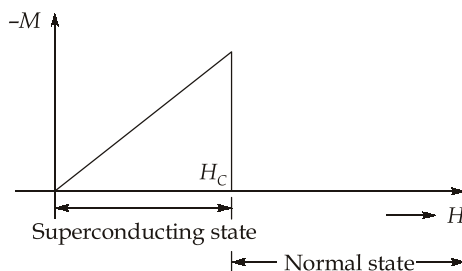
Q.163 Consider the following statements about Type-I superconductors:

1. These are ideal or soft superconductors having very low values of critical field and critical temperature.
 2. The change of state from super-conducting state to normal state and vice-versa is gradual.
- Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

163. (a)

For type-I super conductor the change of state from superconducting state to normal state and vice-versa is abrupt.



Q.164 Consider the following statements about the domain name *www.mygov.in*:

1. .in stands for a website hosted in India.
 2. mygov is a second level domain name in the name of the website.
- Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

164. (c)

Q.165 Which of the following statements is/are correct for GIF?

1. GIF stands for Graphics Interchange Format.
2. They are a set of images placed on top of each other in reverse order so that the last is on the top.
3. They are basically image files that are compressed to reduce transfer time.

Select the correct answer using the codes given below:

- (a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

165. (d)

Q.166 Consider the following statements about various types of displays:

1. Super AMOLED is thinner than OLED.
2. In terms of true color OLED is preferred.
3. For life like image quality, QLED is preferred.
4. Apple Co. has the exclusive rights of Super AMOLED.

Which of the above statements are correct?

- (a) 1 and 2 only (b) 2, 3 and 4 only
(c) 1, 2 and 3 only (d) 1, 2, 3 and 4

166. (c)

Q.167 Which of the following is a Malware program designed to restrict the access to the victims data until victim pays for it ?

- (a) Trojan horse (b) Spoofing
(c) Ransomware (d) DOS attack

167. (c)

Q.168 Consider the following statements about computer memory:

1. Secondary storage memory is faster than primary storage memory.
2. Secondary storage memory is more expensive than cache memory.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

168. (d)

Primary storage memory is faster than secondary storage memory and cache is the most expensive memory than is used in a computer.

Q.169 Consider the following statements about Meghraj Initiative of Government of India:

1. It will enable the government to optimize the use of existing resources regarding ICT.
2. It will be an effective tool to meet the infrastructure requirement of the government for implementing and improving digital services.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

169. (c)

Q.170 Consider the following statements with reference to Open Government Data (OGD):

1. The objective is to provide a platform for proactive access to government owned and shareable data.
2. It has been set-up by National Informatics Centre (NIC).

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

170. (c)

Q.171 The Justice Srikrishna Report deals with:

- (a) Data Protection and privacy (b) Cyber crime
(c) e-Commerce (d) Telecommunication

171. (a)

Q.172 Which of the following differences between Bluetooth and WiFi is/are correct?

1. Bluetooth uses 2.4 GHz radio frequency band, whereas WiFi can use 2.4 -5.0 GHz frequency band.
2. Bluetooth is used for Wireless Local Area Network (WLAN) only whereas WiFi is used for Wireless Wide Area Network (WWAN) only.
3. When information is transmitted between two devices using Bluetooth technology, the devices have to be in the line of sight of each other.

Select the correct answer using the codes given below:

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) None of the above

172. (a)

- Statement 2 is incorrect as WiFi can be used to create other networks also like WLAN, WPAN etc.
- Statement 3 is also incorrect as line of sight is not necessary.

Q.173 Consider the following statements about Quantum Dot Display:

1. They do not need a back light and are self-illuminating structures.
2. They are made of by 3-D confined structure.
3. They give rise to high pixelated structure.

Which of the above statement(s) is/are correct?

- (a) 1 and 2 only (b) 3 only
(c) 1 and 3 only (d) 1, 2 and 3

173. (b)

- Statement 1 is incorrect as the commercially available Q-dot displays use a blue colour LED back light for display, thus back light display LED is most commonly used QD display.
- Statement 2 is incorrect as the technology to create display is termed on the basis of illumination method they offer as QLED display, AQLED or flat pannel LED displays and 3-D confinement is name of the technology to create nanostructure.
- Statement 3 is correct as the size of nanoparticles is small the number of pixels per sq. inch is improved resulting in a high pixelated structure.

Q.174 Which of the following statement(s) is/are correct about Incredible India Virtual Reality (VR) launched by Ministry of Tourism?

- (a) It is a 360° VR.
- (b) It has been launched in partnership with Google Arts & Culture.
- (c) It uses Yi Halo camera.
- (d) All of the above

174. (d)

Q.175 Consider the following statements about Near Field Communication (NFC) Technology:

- 1. It is a contactless communication technology that uses electromagnetic radio fields.
- 2. NFC technology can be used to create macro-networks.

Which of the above statement(s) is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

175. (a)

Near-field communication is a set of communication protocols that enable two electronic devices, one of which is usually a portable device such as a smartphone, to establish communication by bringing them within 4 cm of each other. They can not be used to create large wireless networks.

Q.176 Consider the following statements regarding the TRAI guidelines for DATA security:

- 1. The public should be given the right to choose, consent and to be forgotten to safeguard their privacy.
- 2. Both collectors and processors should be accountable for "unintended harm" caused to the user.
- 3. It had recommended that government should prepare a Draft called Personal Data Protection Bill, 2018.

Which of the above statement(s) is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

176. (a)

Q.177 Consider the following statements with respect to Internet of Things (IoT):

- 1. It has evolved from the convergence of wireless technologies, micro-electromechanical systems (MEMS), micro services and the internet.
- 2. It can help a person with a heart monitor implant, a farm animal with a biochip transponder or an automobile that has built-in sensors to alert the driver when tire pressure is low.

Which of the above statement(s) is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

177. (c)

Q.178 Consider the following statements about Cryptocurrency:

1. Cryptocurrency is a type of digital currency that uses cryptography for security and anti-counterfeiting measures.
2. Bitcoin is a cryptocurrency which works through distributed ledger technology called blockchain.

Which of the above statement(s) is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

178. (c)

Q.179 The technology which is recently developed that uses the internet in real time to control or interact with other electronic devices is termed as:

- (a) Embedded Web Technology (b) Machine Interaction Technology
(c) RTGS Technology (d) Real Time Web Technology

179. (d)

Q.180 Statement (I): UTTAM app is developed to ensure accountability, transparency, effectiveness and efficiency in coal ecosystem.

Statement (II): UTTAM app ensures transparency by government's assessment of mined coal.

- (a) Both Statement (I) and Statement (II) are true and Statement (II) is the correct explanation of Statement (I).
(b) Both Statement (I) and Statement (II) are true but Statement (II) is not a correct explanation of Statement (I).
(c) Statement (I) is true but Statement (II) is false.
(d) Statement (I) is false but Statement (II) is true.

180. (c)

UTTAM stands for Unlocking Transparency by Third party Assessment of Mined coal. The Ministry of Coal and CIL developed UTTAM app which aims to provide a platform for all citizens and coal consumers to monitor the process.

