DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED

TEST BOOKLET AP(CC) ENVIRONMENTAL SC-2018

Time	Allowed: 2 Hours] [Maximum Marks: 100
-	All questions carry equal marks.
	INSTRUCTIONS
1.	Immediately after the commencement of the examination, you should check that test booklet does not have any unprinted or torn or missing pages or items, etc. If so, get it replaced by a complete test booklet.
2.	Write your Roll Number only in the box provided alongside. Do not write anything else on the Test Booklet.
3.	This Test Booklet contains 100 items (questions). Each item comprises four responses (answers). Choose only one response for each item which you consider the best.
4.	After the candidate has read each item in the Test Booklet and decided which of the given responses is correct or the best, he has to mark the circle containing the letter of the selected response by blackening it completely with Black or Blue ball pen. In the following example, response "C" is so marked:
	(A) (B) (D)
5.	Do the encoding carefully as given in the illustrations. While encoding your particulars or marking the answers on answer sheet, you should blacken the circle corresponding to

- the choice in full and no part of the circle should be left unfilled. After the response has been marked in the ANSWER SHEET, no erasing/fluid is allowed.
- You have to mark all your responses ONLY on the ANSWER SHEET separately given 6. according to 'INSTRUCTIONS FOR CANDIDATES' already supplied to you. Responses marked on the Test Booklet or in any paper other than the answer sheet shall not be examined.
- 7. All items carry equal marks. Attempt all items. Your total marks will depend only on the number of correct responses marked by you in the Answer Sheet. There will be negative marking and 1/4 (0.25) of the marks will be deducted as penalty for wrong answer.
- Before you proceed to mark responses in the Answer Sheet fill in the particulars in the 8. front portion of the Answer Sheet as per the instructions sent to you.
- If a candidate gives more than one answer, it will be treated as a wrong answer even 9. if one of the given answers happens to be correct.
- 10. After you have completed the test, hand over the Answer Sheet only, to the Invigilator.

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[Maximum Marks: 100

Time Allowed: 2 Hours]

1.	At mid-latitudes, the depth of ozone column, at standard pressure of 1 atm,
	is about:
	(A) 1 mm (B) 2 mm
	(C) 3 mm (D) 5 mm
2.	Assertion (A): Radiative effects of aerosols are much more difficult to assess
	than the greenhouse gases.
	Reason (R): Aerosols are not uniformly distributed in atmosphere and
	undergo transformations.
*	Choose the correct code:
	(A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
	(B) Both (A) and (R) are correct but (R) is not the correct explanation
	of (A)
8	(C) (A) is correct but (R) is incorrect
	(D) (A) is incorrect but (R) is correct
3.	Identify the correct statement:
	(A) Dry adiabatic lapse rate is a constant at all latitudes
	(B) Environmental lapse rate varies with altitude at a specific latidude
al ·	(C) Environmental lapse rate is a constant at a particular latitude
	(D) Environmental lapse rate is always positive
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4.	Water vapor is a good absorb	per of Infra-red radiations in the wavelengt	th
	range:		
	(A) $0.1 - 0.8 \ \mu m$	(B) $0.9 - 3.0 \ \mu m$	
	(C) $3.0 - 4.2 \mu m$	(D) $4.2 - 5.1 \ \mu m$	
5.	Identify the <i>correct</i> sequence of pollution in major rivers of I	f sources in order of their contribution to watendia:	er
	(A) Untroated sowage > agricu	ulture run-off > un-regulated small scale indust	rv

- Untreated sewage > agriculture run-off > un-regulated small s Untreated sewage > un-regulated small scale industry > agriculture run-off
 - Un-regulated small scale industry > untreated sewage > agriculture run-off (C)
 - Un-regulated small scale industry > agriculture run-off > untreated sewage
- Cyclones used for removing particulate matter from polluted gases are more 6. efficient in collecting particles in the size range:
 - ≥ 10 µm (A)

(B)

(B) 2-5 µm

0.5-2 µm (C)

- < 10 µm (D)
- Noise pollution can cause: 7.
 - Speech interference (a)
 - Hearing impairment (b)
 - Annoyance (c)
 - Insomnia (d)

Choose the correct code:

- (a), (b) and (c) only (A)
- (b), (c) and (d) only (B)
- (b) and (c) only (C)
- (a), (b), (c) and (d)(D)

8.	In noise measurements, the reference noise level represents intensity of:
	(A) 10^{-12} W/m ² (B) 10^{-9} W/m ²
	(C) 10^{-6} W/m^2 (D) 10^{-3} W/m^2
9.	Assertion (A): Development and expansion of nuclear energy programmes
	in India is critical to India's security.
	Reason (R): India has vast reserves of thorium.
	Choose the correct code:
	(A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
	(B) Both (A) and (R) are correct but (R) is not the correct explanation
	of (A)
	(C) (A) is correct but (R) is incorrect
	(D) (A) is incorrect but (R) is correct
10.	Indian Government's target, for harnessing power from renewable energy
	sources by the year 2030, is:
	(A) 175 GW (B) 350 GW
tr.	(C) 700 GW (D) 840 GW
11.	At STP, if concentration of CO2 is 400 ppm, what is its value in
	(kgm^{-3}) ?
	(A) ~ 0.0008 (B) ~ 0.004
	(C) ~ 0.04 (D) ~ 0.0016
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 (A) BOD and conductivity (B) BOD and TOC (C) BOD and turbidity (D) TOC and turbidity 13. Officially known as transforming our world: the 2030 Agenda, Sustainable goals are: (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe (C) Poor (D) Very poor 	12.	The	extent of	pollutant	s in organic	efflue	nts is bes	t charac	terized	by:
 (C) BOD and turbidity (D) TOC and turbidity 13. Officially known as transforming our world: the 2030 Agenda, Sustainable goals are: (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 		(A)	BOD and	conducti	vity			*		
 (D) TOC and turbidity 13. Officially known as transforming our world: the 2030 Agenda, Sustainable goals are: (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 	1E	(B)	BOD and	TOC						
 Officially known as transforming our world: the 2030 Agenda, Sustainable goals are: (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 		(C)	BOD and	turbidity	′			=	8	× 27
goals are: (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM _{2.5} is: (A) 40 µg/m ³ (B) 60 µg/m ³ (C) 100 µg/m ³ (D) 80 µg/m ³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe		(D)	TOC and	turbidity						
 (A) 169 (B) 48 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 	13.	Offic	cially know	n as tran	sforming o	ur worl	d: the 20	30 Agen	da, Sus	stainable
 (C) 21 (D) 17 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 	1 01	goal	s are:							
 14. As per National Ambient Air Quality Standards, the 24 hour average permissible level of PM_{2.5} is: (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 		(A)	169	iā.		(B)	48			
permissible level of $PM_{2.5}$ is : (A) 40 $\mu g/m^3$ (B) 60 $\mu g/m^3$ (C) 100 $\mu g/m^3$ (D) 80 $\mu g/m^3$ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being : (A) Moderate (B) Severe		(C)	21	14 T		(D)	17			
 (A) 40 μg/m³ (B) 60 μg/m³ (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 	14.	As	per Nation	nal Ambi	ent Air Qu	ality S	Standards	, the 24	hour	average
 (C) 100 μg/m³ (D) 80 μg/m³ 15. Air Quality Index (AQI) value of 350 represents the level of pollution being: (A) Moderate (B) Severe 		perr	nissible lev	vel of PM	2.5 is:	•			÷ In	*
15. Air Quality Index (AQI) value of 350 represents the level of pollution being:(A) Moderate(B) Severe		(A)	$40 \mu g/m^3$			(B)	60 μg/m ³			
being: (A) Moderate (B) Severe		(C)	100 µg/m	3	#2 T	(D)	80 μg/m ³	L. y.	r sa	
(A) Moderate (B) Severe	15.	Air	Quality In	ndex (AG	(I) value of	f 350 i	represents	the lev	rel of	pollution
		bein	ng:			- 1				
(C) Poor (D) Very poor		(A)	Moderate			(B)	Severe	18.		
		(C)	Poor		e g g	(D)	Very poo	r		

The main constituents of photochemical smog ar	e :	eð
(A) NO ₂ , SO ₂ and aerosols		
(B) SO ₂ , CO and aerosols		
(C) NO ₂ , CO and PAN		
(D) NO2, O3, hydrocarbons and PAN		
A wind rose with approximately equal length ba	rs indicates:	
(A) Great variation of wind direction		
(B) Uniform velocity in all directions		
(C) Lower variability in any given direction	*	
(D) Calm winds		y
Which of the following element cycles is an endo	ogenic geochemica	l cycle ?
(A) Carbon cycle (B) Nitrogo	en cycle	8
(C) Phosphorous cycle (D) Sulphu	r cycle	9
		ambient
Reason (R): Sulphuric acid has very low va	pour pressure.	
Choose the correct code:		
(A) Both (A) and (R) are correct and (R) is the	correct explanation	on of (A)
(B) Both (A) and (R) are correct but (R) is not of (A)	ot the correct exp	lanation
(C) (A) is correct but (R) is incorrect		
(D) (A) is incorrect but (R) is correct		
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	 (A) NO₂, SO₂ and aerosols (B) SO₂, CO and aerosols (C) NO₂, CO and PAN (D) NO₂, O₃, hydrocarbons and PAN A wind rose with approximately equal length bath (A) Great variation of wind direction (B) Uniform velocity in all directions (C) Lower variability in any given direction (D) Calm winds (E) Which of the following element cycles is an endered (A) Carbon cycle (E) Phosphorous cycle (E) Phosphorous cycle (E) Sulphuric acid, a constituent of a atmosphere significantly in the reason (R): Sulphuric acid has very low vary Choose the correct code: (E) Both (A) and (R) are correct and (R) is the of (A) (E) (E) (E) (E) (E) (E) (E) (E) (E) (E)	 (B) SO₂, CO and PAN (C) NO₂, C₃, hydrocarbons and PAN A wind rose with approximately equal length bars indicates: (A) Great variation of wind direction (B) Uniform velocity in all directions (C) Lower variability in any given direction (D) Calm winds (E) Which of the following element cycles is an endogenic geochemical (A) Carbon cycle (B) Nitrogen cycle (C) Phosphorous cycle (D) Sulphur cycle Assertion (A): Sulphuric acid, a constituent of acid rain exists in atmosphere significantly in the form of particles. Reason (R): Sulphuric acid has very low vapour pressure. Choose the correct code: (A) Both (A) and (R) are correct and (R) is the correct explanation (B) Both (A) and (R) are correct but (R) is not the correct explanation (C) (A) is correct but (R) is incorrect (D) (A) is incorrect but (R) is correct

20.	Atmospheric window for radiations is in the wavelength range:
	(A) 7-12 μm (B) 1-6 μm
	(C) 0.7-4 μm (D) 12-15 μm
21.	Which of the following greenhouse gases has maximum residence time in
	atmosphere?
76	
	(A) N ₂ O (B) CH ₄
	(C) O ₃ (D) CO ₂
*	
22.	Assertion (A): In India, stable run-off is high.
	Reason (R): Most of the precipitation occurs during the monsoon season
	in India.
-4	Choose the correct code:
	(A) Both (A) and (B) are correct and (B) is the correct explanation of (A)
	(A) Both (A) and (It) are correct and (It) is the correct explanation of (A)
28	(B) Both (A) and (R) are correct but (R) is not the correct explanation
	6.44
	of (A)
	(C) (A) is correct but (R) is incorrect
	(D) (A) is incorrect but (R) is correct

23.	Whi	ch of th	e follo	wing g	group o	f mine	erals	in mari	ne and	coastal	waters	are
390	of se	erious o	oncern	?		8						
¥0	(A)	Hg, C	d, Pb				(B)	Fe, Ca	, Ni			5(#8
	(C)	Fe, Pl	o, Ca				(D)	Fe, Ca	, Cr			
24.	Mat	ch Lists	I and	II and	choose	the co	rrect	answer	from the	codes	given be	low
	the	lists :				= #/>						
	187		List	I	**		#1 ¹¹¹	List	II			
		(Envi	ronmė	ntal :	Sampl	es)	(Me	easurem	ent Te	chniqu	ıes)	
	(a)	Clay	mineral	s			(i)	AAS				
	(b)	PAHs	(Poly	aroma	tic		(ii)	HPLC		$e^{-e^{i}}$		
		hydro	ocarbon	s) *		- Ŷ						
	(c)	vocs	(Volat	ile org	ganic		(iii)	GC				
		carbor	ns)									## 14
	(d)	Heavy	metal	s		or.	(iv)	XRD		* .		e 88
	Cod	es :								9	- 3. 	
		(a)	(b)	(c)	(d)	J 18				* 1 m		
(e)	(A)	<i>(i)</i>	(iii)	(ii)	(iv)	•	i.				40	77
×	(B)	(iv)	(ii)	(iii)	(i) .		8					
÷	(C)	(iv)	(iii)	(ii)	(<i>i</i>)				8			
	(D)	(iii)	(iv)	(ii)	(i)						* * *	

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25 .	In a	a closed ecosystem :			
	(A)	Both matter and energy car	not flow across	its boundari	es
•	(B)	Matter can flow but energy	cannot flow acro	oss its bound	daries
¥	(C)	Both matter and energy car	n flow across its	boundaries	
E	(D)	Energy can flow but matter	cannot flow acr	oss its boun	daries
26.	Whi	ich of the following soil types	is associated wi	th tropical 1	rain forests?
	(A)	Oxisols	(B) Mollisol	s	
	(C)	Spodosols	(D) Alfisols		
27.	Whi	ich of the following activities	help in soil cons	servation?	
	(a)	Crop rotation	(b) Strip cr	opping	
ä	(c)	Terracing	(d) Contour	r ploughing	*
	Cho	oose the correct code:	*		
	(A)	(a) and (b) only			
	(B)	(a), (c) and (d) only	W		
	(C)	(a), (b) and (c) only			
ŧ	(D)	(a), (b), (c) and (d)			

- 28. An artesian aquifer is a ground water storage area which is :
 - (A) Between two impermeable rocks
 - (B) Between porous layers of a rock
 - (C) Between a porous layer at the top and impermeable layer of rock at the bottom
 - (D) Between two porous layers of a rock
- 29. **Assertion (A):** Fungal diversity plays a significant role in ecosystem variability and productivity.
 - Reason (R): Fungi form associates with plants roots (mycorrhizae) and provide nutrient minerals for majority of plant species.

Choose the correct code:

- (A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are correct and (R) is not the correct explanation of (A)
- (C) (A) is correct and (R) is incorrect
- (D) Both (A) and (R) are incorrect

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30.	Soil organisms provide various ecosystem services:	*
	(a) Decaying and cycling of organic material	
	(b) Preventing soil erosion	
	(c) Cleansing water	
	(d) Affecting composition of atmosphere	3
	Choose correct answer:	
	(A) (a) and (b) only	*
	(B) (a), (c) and (d) only	
	(C) (a) and (d) only	
	(D) (a), (b), (c) and (d)	
31.	What fraction (%) of a soil's volume is occupied roughly by p	ore spaces?
2 1	(A) ~ 50% (B) ~ 25%	
	(C) ~ 66% (D) ~ 45%	
32.	When there is an increase of one unit on Richter Scale, the ene	ergy released
	in an earthquake increases by a factor of:	
	(A) ~ 2 (B) ~ 10	
	(C) ~ 18 (D) ~ 31	*

33.	For	cyclones to occur, there is balance between:
	(A)	Pressure gradient force and centrifugal force
	(B)	Pressure gradient force and Coriolis force
	(C)	Coriolis force and centrifugal force
	(D)	Coriolis force, centrifugal force and frictional force
34.	War	m and cool phases of a recurring climate pattern across tropical pacific
	ocea	an can shift back and forth every:
	(A)	Two to seven years
	(B)	One to two years
	(C)	10 to 12 years
	(D)	6 months to 2 years
35.	Lar	gest iron ore reserves of Magnetite are in :
	(A)	Orissa (B) Karnataka
	(C)	Jharkhand (D) Goa

1	
36.	'Mohs' is the scale of:
	(A) Conductivity of a mineral
	(B) Susceptibility of a mineral
* \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(C) Porosity of a mineral
\.	(D) Hardness of a mineral
37.	In remote sensing studies of biomass determination, waterbody delineation
	geographical boundary mapping, which of the following spectral bands is
	used?
	(A) $0.76\text{-}0.9~\mu m$ (B) $1.55\text{-}1.75~\mu m$
	(C) 2.08-2.35 μm (D) 10.4-12.5 μm
38.	The environmental statement consists of:
	(a) Description of project site characteristics
	(b) Project objectives
	(c) Significant impacts due to project activities
	(d) Mitigating measures
	Choose the correct code:
	(A) (a), (b)

(B) (a), (b), (d)

(D) (b), (c), (d)

(C) (a), (b), (c), (d)

39.	Env	vironmental Audit provides :	
	(A)	Cost-benefit analysis of environmental initiatives of an industry/co	mpany
	(B)	A framework for measuring environmental performance of an in	dustry
		company	
	(C)	Quantification of financial cost of damage due to pollution arisin	g from
		the activities of the industry/company	
	(D)	Life cycle analysis of the products being manufactured and/or pro	ocessed
		in an industry/company	1
40.	In t	the context of K-species, which of the following statements is tru	ue?
	(A)	They have high intrinsic growth rate	
	(B)	They quickly exhaust the resources of their habitats	
	(C)	Their reproductive rate is not dependent on population density	У
	(D)	They exist at population levels close to carrying capacity	1.
41.	Whi	nich of the following is a major determinant for the climax commu	unity ?
	(A)	Climate (B) Topography	2
	(C)	Soil condition (D) Animal activity	

42.	Mic	ro-flora/fauna does	not include					
				*				1
. \	(A)	Nematoda		(B)	Protozoa	1 X 4		
1	(C)	Fungi		(D)	Amphipoda			
			4					
43.	In	forest ecosystem	s, the eco	logical	efficiency	is typical	lly in	the
	rang	ge:						
			3	×				
	(A)	5-20%		(B)	15-25%			
				22	*			
	(C)	1-5%		(D)	20-30%			
						9 - 6		27
44.	Hov	w many biosphere	rocorvos are	there i	in India at	present ?		
44.	. 110	many biosphere	reserves are	e there i	m maia at	present .		
9			4 4					
	(A)	21		(B)	34			
	F						8	
	(C)	28	C30.	(D)	18			
45 .	The	rotational motion	of the debi	ris is ass	sociated wit	h which ty	pe of la	and-
,			*					
	slid	es?						
					*		W.I	
FE.	(A)	Earth flows		(B)	Mud flows			
						14.6		
	(C)	Rock falls	1 項	(D)	Slumps			1 9
	(0)	TOOK TAILS		(2)	~	0.00		
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46.	Weathering of rocks can cause:
	(a) Development of another in make
	(a) Development of cracks in rocks
	(b) Landslides
	(c) Changes in the texture of rock structures
	Choose the correct code:
	(A) (c) only
	(B) (a) and (c) only
	(C) (b) and (c) only
	(D) (a), (b) and (c)
	(2) (a), (b) and (c)
47.	Red tides are:
	(A) Algae blooms
	(B) Tides with very high range
	(C) Mercury contaminated marine waters
	(D) Tides with high concentration of sediments
48.	Based on the LD ₅₀ values, which of the following substances is mos
1	toxic ?
4	
	(A) Nicotine (B) Lead
	(C) Ethanol (D) Dioxins
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- 49. Environmental Impact Assessment is a process of :
 - (a) Examining anticipated environmental impacts of a proposed project
 - (b) Preparing EIA report
 - (c) Evaluation of EIA report by the competent authority
 - (d) Arriving at a decision with regard to establishment of a project encompassing public response to the decision

Choose the correct code:

- (A) (a), (b), (c), (d)
- (B) (a), (b), (c)
- (C) (a), (b), (d)
- (D) (b), (c), (d)
- 50. The environmental impact identification method—'Matrices':
 - (A) Distinguishes between direct and indirect impacts
 - (B) Is quantitative in nature
 - (C) Ensures counting of an impact only once
- (D) Links actions/activities of a project to impacts

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51.	Public Liability Insurance Act was enacted in the year:
100	(A) 1987 (B) 1991
	(C) 1997 (D) 1984
52.	Consider Box model for a city of length 20 km, where the mixing height in
•	the atmosphere is 800 m and the average wind speed is 5.0 m/s. If a gaseous
*	pollutant is emitted in the city at the rate 100 kg/s, what will be its concentration
	in the ambient air?
	(A) $312.5 \mu\text{g/m}^3$ (B) $625.0 \mu\text{g/m}^3$
	(C) $1250.0 \ \mu g/m^3$ (D) $2500.0 \ \mu g/m^3$
53.	In the context of waste water sludge treatment utilizing anaerobic digestion
ţ.t	which of the following statements is true?
2	(A) Acid forming bacteria are relatively tolerant to changes in temperature
	(B) Acid forming bacteria are relatively tolerant to changes in pH
	(C) Methane forming bacteria are very sensitive to pH and temperature
	(D) Methane forming bacteria are less sensitive to presence of toxins and
	oxygen
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- 54. **Assertion (A):** Lime used as a coagulant for removing phosphates also helps in stripping ammonia from municipal waste water.
 - Reason (R): Lime increases pH of waste water causing soluble ammonium ions to ammonia gas.

Choose the correct code:

- (A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are correct and (R) is not the correct explanation of (A)
- (C) (A) is correct but (R) is incorrect
- (D) (A) is incorrect but (R) is correct
- 55. In a spectrophotometric experiment, the transmittance of a beam of monochromatic radiation, while passing through a solution of path length 2.0 cm, was 50%. If the molar absorptivity of the sample is 1000 L mol⁻¹ cm⁻¹, what is the concentration of the compound in the solution?
 - (A) $1.5 \times 10^{-4} \text{ mol L}^{-1}$
 - (B) $3.0 \times 10^{-4} \text{ mol } L^{-1}$
 - (C) $1.5 \times 10^{-5} \text{ mol L}^{-1}$
 - (D) $2.0 \times 10^{-4} \text{ mol L}^{-1}$

									•
56.	A 1	M sol	lution	of H ₂ S	O_4 in	a reacti	on wit	h NaOH is equivaler	it to a solution
		orma				. 45			
40	(A)	0.25	N				(B)	0.5 N	
	(C)	1 N					(D)	2 N	
57.	A w	ater	sample	e has	200 m	g/L of	Ca ²⁺ .	Its hardness (meq/L) is :
	(A)	~ 10)				(B)	~ 5	
	(C)	~ 20)		•		(D)	~ 100	
58.	The	perm	nissible	stanc	dard fo	or BOD	in liq	uid waste water is	
	(A)		mg/L			* * * * * *	(B)	The second second	
	(C)	•	mg/L				(D)		
59.	Mat			I and	II and	l choose		orrect answer from the	ne codes given
. *	belo								de codes given
			List	Ι	ē	F)		List II	
		(Pe	olluta	nts)	,		(Wa	ater Treatment Me	ethods)
	(a)	Susp	ended	mate	rial		(i)	Ozone dosing	
	(b)	_		organi	,		(ii)	Precipitation	
	(c)				npound	ls	(iii)		
	(d)			** to	organi		(iv)		
		les :			organi		. (00)	rimary treatment	
	Cou	(a)	(b)	(c)	(d)				
2.2	(A)								
	(A)	(iv)	(iii)	(ii)	(i)	361			
	(B)	(iv)	(i)	(iii)	(ii)				
-	(C)	(iii)	(ii)	(iv)	<i>(i)</i>	*			
	(D)		(iii)	(iv)	(ii)		p: (4)	(A)	
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- 60. Assertion (A): Nitrates from land sources end up in rivers and streams more quickly than other nutrients like phosphorous.
 - Reason (R): They dissolve in water more readily than phosphorous.

 Choose the correct code:
 - (A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
 - (B) Both (A) and (R) are correct but (R) is not the correct explanation of (A)
 - (C) (A) is correct but (R) is incorrect
 - (D) (A) is incorrect but (R) is correct
- 61. According to Hazardous Wastes (Management and Handling) Amendment Rules 2003, which of the following is *not* hazardous waste?
 - (A) Lead acid batteries
 - (B) Wastes from dyes
 - (C) Wastes from paints and varnishes
 - (D) Asbestos

62.	In selecting a MSW	landfill	site	which	of the	efollowing	parameters	must	be
	taken into considera	ation?							

- (a) Hydrology
- (b) Public opposition
- (c) Environmental factors such as wetlands
- (d) Buffer areas around the site

Codes:

- (A) (a), (b) (c), (d)
- (B) (a), (b) and (c) only
- (C) (a), (c) and (d) only
- (D) (b), (c) and (d) only
- 63. In solid waste classification, the term 'Garbage' includes which of the following:
 - (A) Wastes from preparation, cooking and serving of food; market wastes from handling, storage and sale of products
 - (B) Cartons and boxes
 - (C) Tree branches
 - (D) Construction material from razing of buildings

64.	Which of the following is about Disaster	Reduction ?
	(A) Montreal Protocol (B)	Sendai Framework
	(C) UNFCC (D)	Basel Convention
65.	The potential of electricity generation from	om tidal power in India is about :
	(A) $\sim 6000 \text{ MW}$ (B)	~ 1875 MW
7	(C) ~ 12,350 MW (D)	~ 8300 MW
66.	For which of the following sources	of energy, sun is not directly
	responsible ?	
	(A) Geothermal (B)	Wind
	(C) Biomass (D)	Photo-voltaic,
67.	Which of the following gases have maxi-	mum energy content ?
	(A) Butane (B)	Methane
	(C) Hydrogen (D)	Natural gas
68.	According to 5th Assessment report of	IPCC, the global average surface
	temperatures during 1880-2012 had rise	n by:
	(A) $\sim 0.74 ^{\circ}\text{C}$ (B)	~ 0.85 °C
	(C) ~ 0.92 °C (D)	~ 1.20 °C

69.	Con	sider the following two s	statements	:	ii.	10	
	(i)	India has committed to	phase out	use of HF	Cs drasticall	y by t	he yea
		2047.			, A ₂		
	(ii)	HFCs are ozone depleti	ng substan	ices.			
	Choo	ose the <i>correct</i> answer:			11-20		
	(A)	Both (i) and (ii) are tru	ıe				
	(B)	(i) is true but (ii) is fal	se				
	(C)	(i) is false but (ii) is tru	ue				
	(D)	Both (i) and (ii) are fal	se		B 4		
70.	Ther	mal power plants (based	d on coal) h	nave efficie	ency typical	ly arou	ınd :
	(A)	~ 40%	(B)) ~ 25%			11
	(C)	~ 62%	(D)	~ 75%			
71.	Cons	ider an ideal wind mill.	If the aver	age wind	speed is 15	km pe	r hour
	the p	power generated from th	e wind mil	l will be :	*		
	(A)	~ 42 W/m ²	(B)	~ 84 W	$^{\prime}/\mathrm{m}^{2}$		*
	(C)	~ 212 W/m ²	(D)	~ 4200	W/m^2		

72.	The	temperature of the	conducting fl	uid in a MHD pow	er plant is
	appı	roximately:			×
2.	(A)	~ 800 °C	(B)	~ 1200 °C	
	(C)	~ 2500 °C	(D)	~ 5600 °C	
73.	At a	any location, the chang	es in solar ins	solation depend on :	
	(a)	Water vapor	(b)	Clouds	
	(c)	Aerosols	(d)	Surface Ozone and I	NO_2
	Cho	ose the correct code:			
	(A)	(a), (b) and (c) only		y .	
	(B)	(b), (c) and (d) only			
G#8	(C)	(a) and (c) only			
	(D)	(a), (b), (c) and (d)	1 2		
74.	Aer	osol particles deposit in	various region	s of human respirator	y system by
	the	following mechanisms	: .		,
	(a)	Impaction	(b)	Sedimentation	E
	(c)	Transport	(d)	Brownian motion	
	Cho	ose the correct code:		*	
	(A)	(a), (b), (c) and (d)		*	
	(B)	(a), (b) and (d) only		, ×	
	(C)	(a), (b) and (c) only			628
	(D)	(a) (a) and (d) only	. 133	Al .	

75 .	Biol	ogical organisms called chemoheterotrophs include:
	(A)	Protozoa and fungi only
	(B)	Fungi and bacteria only
	(C)	Animals and bacteria only
	(D)	Animals, protozoa, fungi and bacteria
76.	The	main source of Dioxins is:
	(A)	Incineration
	(B)	Landfills
	(C)	Agriculture refuse burning
1	(D)	Road transport
77.	In w	which of the following distributions the mean and variance are equal
	(A)	Poisson (B) Normal
	(C)	Binomial (D) t-distribution
78.	If th	ne sample mean $\bar{X} = 5$, population mean $\mu = 3$, the standard deviation
	= 4	and number of observations is 100 , t -statistic value will be:
9	(A)	1.0 (B) 2.0
	(C)	5.0 (D) 10.0
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79.	Ske	wness of a statist	ical distribution	is:				
	(A)	First moment al	bout the mean					

	(B)	Second moment	about the mea	n				
			Tipot Tipot					
	(C)	Third moment a	bout the mean			160		
	0.000000							
	(D)	Fourth moment	about the mea	n				
* 18:1			181					
80.	Wor	rld Wetland Day	is celebrated or	ı :				
			*	10			10	
	(A)	5th June	, a d	(B)	16th Septe	mber		
						(a)		
	((1)	Olat Appil		(D)	2nd Februa	2 777		
	(C)	21st April	4 6	(1)	Ziid Februa	ii y	31.	
81.	Whi	ich one of the fo	llowing was no	ot in	cluded in th	e eightee	en lords	ships
	(10	41 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1: 11	1.:11 -	llassa of Co	thi Dob	on and	Tong
	(18	thakurais) locate	a in the upper	mm	valleys of Sa	inuj, rabi	ar anu	Tons
		9						
	rive	ers ?	2 *					
					. %			
	(A)	Ghund	1.0	(B)	Ratesh			
				ē.				
	(C)	Keonthal		(D)	Balson			
				1.0	3 5		190	
82.	Wh	ich mountain pas	s joins Spiti ar	nd La	haul?			2
02.	,,,,,,	icii modificani pas	o joine opici ui					
		01 1 1 1		· (D)	17 1			
	(A)	Shipki		(B)	Kangla	ne B		
	(C)	Manirang	*	(D)	Kunzam			
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83.	Whi	ch of the following lakes is in M	Iandi	District of H.P. ?
	(A)	Kumarwah	(B)	Karali
*	(C)	Bradonsar	(D)	Suketi
84.	Whi	ch Muslim ruler led an expedition	agai	nst Raja Prithvi Chand of Kangra
	arou	and 1337 AD ?		
•	(A)	Feroz Shah Tughluq	(B)	Muhammad-bin-Tughluq
	(C)	Mahmud Ghazni	(D)	Timur-i-lang
85.	Whi	ch of the following festivals is as	ssocia	ated with the Gaddis?
	(A)	Bhunda	(B)	Nawala
	(C)	Khojala	(D)	Phulech
86.	Wha	t was the venue of Joint conferen	nce of	f representatives of Praja Mandal
	lead	ers and the princes of Shimla H	ill St	ates on January 26, 1948 ?
	(A)	Mandi	(B)	Shimla
	(C)	Solan	(D)	Nahan
87.	Whe	re is the office of Chief Informat	ion (Commissioner of H.P. ?
	(A)	Armsdale building	(B)	Revenswood
	(C)	Barnes court	(D)	Yarrows
AP(C	C) EN	VIRONMENTAL SC-2018 28	•	

88.	From which constituency was Jaiwant Ram, who was the speaker of the first				
	H.P. Vidhan Sabha, elected?				
	(A) Chamba (B) Pangi				
	(C) Bhattiyat (D) Churah				
89.	Which of the following is <i>not</i> included in the list of Apna Stores/Malls proposed				
	to be opened by the H.P. State Civil Supplies Corporation in the first				
	phase ?				
	(A) Bilaspur (B) Mandi				
	(C) Solan (D) Dharamsala				
90.	What is the capacity of Sawra Kuddu Hydro-Electric Power Project ?				
28	(A) 65 MW (B) 111 MW				
*	(C) 136 MW (D) 450 MW				
91.	In which town of U.P. is Baba Ram (Raghav) Das Medical College where				
	several infants died in August, 2017 ?				
	(A) Kanpur (B) Lucknow				
	(C) Saharanpur (D) Gorakhpur				
AP(C	C) ENVIRONMENTAL SC-2018 29 P.T.O.				

92.	In which sector of Indo-Tibetan border is Lipulekh pass?				
	(A)	H.P. and Uttarakhand	(B)	J & K	
	(C)	Sikkim	(D)	Arunachal Pradesh	
93.	In which city of India is Haji Ali Dargah?				
. *	. (A)	Ajmer	(B)	Delhi	
	(C)	Mumbai	(D)	Hyderabad	
94.	Whi	ch national park is known for	the al	oode of one-horned rhinoceros ?	
	(A)	Nanda Devi (Uttarakhand)			
N.	(B)	Sundarbans (Paschim Banga))		
	(C)	Keoladeo (Bharatpur, Rajasth	ian)		
	(D)	Kaziranga (Asom)	•		
95.	Who	contested the election for the	office	of the President of India held in	
	2017	against Ram Nath Kovind?			
	(A)	Gopal Krishna Gandhi	(B)	Venkaih Naidu	
	(C)	Sharad Yadav	(D)	Meira Kumar	
AP(C	C) EN	IVIRONMENTAL SC-2018 3	0		

96.	make at the 2017 Women Cricket					
**	World Cup Semifinal again	nst Australia tl	hat took India to the final?			
	(A) 131	(B)	151			
	(C) 171	(D)	191			
97.	Which Ex-Prime Minister of Thailand is being tried for negligence ?					
	(A) Prayut Chan-o-Cha	(B)	Yingluck Shinawatra			
	(C) Prawit Wongsuwon	(D)	Cheep Chulamon			
98.	To which religion do the Rohingya ethnic minority community of Myanmar					
	belong?					
	(A) Buddhism	(B)	Jainism			
	(C) Islam	(D)	Christian			
99.	Which Prime Minister of Peru was sached on charges of spying?					
	(A) Pedro Rosselli	(B)	Ana Jard			
	(C) Alberto Fujimori	(D)	E.G. Schreiber			
100.	Which day is observed as	International	Yoga Day ?			
	(A) March 21	(B)	June 21			
	(C) September 21	(D)	December 21			
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