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نام :

نام خانوادگی :

محل امضاء :

عصر جمعه  
۹۲/۱۱/۱۸جمهوری اسلامی ایران  
وزارت علوم، تحقیقات و فناوری  
سازمان سنجش آموزش کشوراگر دانشگاه اصلاح شود مملکت اصلاح می‌شود.  
امام خمینی (ره)

## آزمون ورودی دوره‌های کارشناسی ارشد ناپیوسته داخل – سال ۱۳۹۳

مجموعه مهندسی منابع طبیعی – مرتع و آبخیزداری  
کد ۱۳۰۱

مدت پاسخگویی: ۱۵۰ دقیقه

تعداد سؤال: ۲۷۰

عنوان مواد امتحانی، تعداد و شماره سؤالات

ردیف	مواد امتحانی	تعداد سؤال	از شماره	تا شماره
۱	زبان عمومی و تخصصی	۳۰	۱	۳۰
۲	حفاظت خاک و آبخیزداری	۳۰	۳۱	۶۰
۳	مرتعداری	۳۰	۶۱	۹۰
۴	هیدرولوژی کاربردی	۳۰	۹۱	۱۲۰
۵	ژئومورفولوژی و زمین‌شناسی	۳۰	۱۲۱	۱۵۰
۶	جامعه‌شناسی روستایی	۳۰	۱۵۱	۱۸۰
۷	اصلاح و توسعه مراتع	۳۰	۱۸۱	۲۱۰
۸	شناسایی گیاهان مرتعی	۳۰	۲۱۱	۲۴۰
۹	ارزیابی و اندازه‌گیری مرتع	۳۰	۲۴۱	۲۷۰

بهمن ماه سال ۱۳۹۲  
استفاده از ماشین حساب مجاز نمی‌باشد.  
این آزمون نمره‌ی منفی دارد.

حق چاپ و تکثیر سوالات پس از برگزاری آزمون برای تمامی اشخاص حقیقی و حقوقی تنها با مجوز این سازمان مجاز می‌باشد و با متخلفین برابر مقررات رفتار می‌شود.

**Part A: Vocabulary**

**Directions:** Choose the word or the phrase (1), (2), (3), or (4) that best completes each sentence. Then mark your answer sheet.

- 1- Police officers should be commended for their \_\_\_\_\_ service to the community.  
1) benevolent                      2) harsh                      3) hasty                      4) peculiar
- 2- Despite her \_\_\_\_\_ arguments, the candidate attracted an enthusiastic following.  
1) plausible                      2) wholesome                      3) specious                      4) thorough
- 3- Toni has been \_\_\_\_\_ to achieve musical recognition for the past ten years.  
1) prevailing                      2) displaying                      3) appreciating                      4) striving
- 4- Thousands of families came here seeking \_\_\_\_\_ from the civil war.  
1) remedy                      2) refuge                      3) remnant                      4) rebellion
- 5- Many persons in the \_\_\_\_\_ were awakened by the blast, and some were thrown from their beds.  
1) thrill                      2) urbanity                      3) vicinity                      4) fatigue
- 6- I cannot believe that your parents would \_\_\_\_\_ such rude behavior.  
1) endorse                      2) hinder                      3) postpone                      4) seclude
- 7- Although I had already broken most of her dishes, Jacqueline was \_\_\_\_\_ enough to continue letting me use them.  
1) thrifty                      2) indigent                      3) financial                      4) magnanimous
- 8- Even when someone has been found innocent of a crime, the \_\_\_\_\_ often remains.  
1) endeavor                      2) stigma                      3) urge                      4) quest
- 9- I was badly scared when the explosion made the whole house \_\_\_\_\_.  
1) vacillate                      2) resurge                      3) decline                      4) quake
- 10- The poison produced by the frog's skin is so \_\_\_\_\_ that it can paralyze a bird or a monkey immediately.  
1) pungent                      2) swift                      3) lethal                      4) treacherous

**Part B: Cloze Passage**

**Directions:** Read the following passage and decide which choice (1), (2), (3), or (4) best fits each space. Then mark your answer sheet.

Air pollution has always accompanied civilizations. Pollution started from the prehistoric times when man created the first fires. According to (11) \_\_\_\_\_ in the journal *Science*, "soot (12) \_\_\_\_\_ on ceilings of prehistoric caves provides ample evidence of the high levels of pollution that was associated with (13) \_\_\_\_\_." The forging of metals appears to be a key turning point (14) \_\_\_\_\_ significant air pollution levels outside the home. Core samples of glaciers in Greenland indicate (15) \_\_\_\_\_ in pollution associated with Greek, Roman and Chinese metal production, but at that time the pollution was comparatively less and could be handled by nature.

- 11- 1) a 1983 article                      2) article for 1983                      3) a 1983<sup>rd</sup> article                      4) article in 1983
- 12- 1) was found                      2) having found                      3) found                      4) to be found
- 13- 1) inadequate ventilating open fires                      2) inadequate ventilation of open fires  
3) open fires inadequate ventilation                      4) open fires in inadequate ventilation
- 14- 1) for creation in                      2) in creation for                      3) in the creating for                      4) in the creation of
- 15- 1) increases                      2) increased                      3) the increasing                      4) they increased



**Part C. Reading Comprehension**

**Directions:** Read the following three passages and choose the best choice (1), (2), (3) or (4). Then mark it on your answer sheet.

**PASSAGE 1**

Stormwater is water that originates during precipitation events. It may also be used to apply to water that originates with snowmelt that enters the stormwater system. Stormwater that does not soak into the ground becomes surface runoff, which either flows directly into surface waterways or is channeled into storm sewers, which eventually discharge to surface waters. Stormwater is of concern for two main issues: one related to the volume and timing of runoff water (flood control and water supplies) and the other related to potential contaminants that the water is carrying, i.e. water pollution. Stormwater is also a resource and ever growing in importance as the world's human population demand exceeds the availability of readily available water. Techniques of stormwater harvesting with point source water management and purification can potentially make urban environments self-sustaining in terms of water. Because impervious surfaces (parking lots, roads, buildings, compacted soil) do not allow rain to infiltrate into the ground, more runoff is generated than in the undeveloped condition. This additional runoff can erode watercourses (streams and rivers) as well as cause flooding after the stormwater collection system is overwhelmed by the additional flow. Because the water is flushed out of the watershed during the storm event, little infiltrates the soil, replenishes groundwater, or supplies stream baseflow in dry weather. Pollutants entering surface waters during precipitation events is termed polluted runoff. Daily human activities result in deposition of pollutants on roads, lawns, roofs, farm fields, etc. When it rains or there is irrigation, water runs off and ultimately makes its way to a river, lake, or the ocean. While there is some attenuation of these pollutants before entering the receiving waters, the quantity of human activity results in large enough quantities of pollutants to impair these receiving waters.

**16. It is stated in the passage that.....**

1. water is not readily available in the world's heavily populated areas
2. stormwater is, in fact, snowmelt that results from precipitation events
3. more runoff is generated in compacted soil than undeveloped soil
4. precipitation events end up in the creation of stormwater in dry areas

**17. The passage mentions that.....**

1. stormwater gets polluted only after it gets to a sewage system
2. in urban areas storm sewers discharge surface waters as floods
3. water supplies carry potential contaminants as unwanted runoff
4. precipitation events can enter pollutants into surface waters

**18. The passage points to the fact that a cause of additional flow in stormwater collection systems is / are.....**

- |                        |                            |
|------------------------|----------------------------|
| 1. impervious surfaces | 2. replenished groundwater |
| 3. stream baseflows    | 4. soil infiltration       |

**19. We understand from the passage that polluted runoff is.....when it finally makes its way to a river, lake or the ocean (than when it is first formed).**

- |                          |                                    |
|--------------------------|------------------------------------|
| 1. not actually polluted | 2. less polluted                   |
| 3. more polluted         | 4. not much different in pollution |

**20. The word 'impair' in the passage (underlined) is closest to.....**

- |             |              |
|-------------|--------------|
| 1. 'occupy' | 2. 'balance' |
| 3. 'fill'   | 4. 'harm'    |

### **PASSAGE 2**

An owner or possessor of land that abuts a natural stream, river, pond, or lake is called a riparian owner or proprietor. The law gives riparian owners certain rights to water that are incident to possession of the adjacent land. Depending on the jurisdiction in which a watercourse is located, riparian rights generally fall into one of three categories. First, riparian owners may be entitled to the "natural flow" of a watercourse. Under the natural flow doctrine, riparian owners have a right to enjoy the natural condition of a watercourse, undiminished in quantity or quality by other riparian owners. Every riparian owner enjoys this right to the same extent and degree, and each such owner maintains a qualified right to use the water for domestic purposes, such as drinking and bathing. However, this qualified right does not entitle riparian owners to transport water away from the land abutting the watercourse. Nor does it permit riparian owners to use the water for most irrigation projects or commercial enterprises. Sprinkling gardens and watering animals are normally considered permissible uses under the natural flow doctrine of riparian rights. Second, riparian owners may be entitled to the "reasonable use" of a watercourse. States that recognize the reasonable use doctrine found the natural flow doctrine too restrictive. During the industrial revolution of the nineteenth century, some U.S. courts applied the natural flow doctrine to prohibit riparian owners from detaining or diverting a watercourse for commercial development, such as manufacturing and milling, because such development impermissibly altered the water's original condition. In replacing the natural flow doctrine, a majority of jurisdictions in the United States now permit riparian owners to make any reasonable use of water that does not unduly interfere with the competing rights and interests of other riparian owners.

**21. According to the natural flow doctrine mentioned in the passage.....**

1. water cannot be transported by a riparian owner to a nearby land
2. the water's original condition can only be impermissibly altered
3. proprietors own both the land and the stream, river, pond inside it
4. riparian owners in the US have the right for most irrigation projects

**22. The passage points to the fact that.....**

1. riparian owners enjoy the right to the same degree of water use on adjacent lands
2. natural flow doctrine also considers rights of watering animals living on the land
3. U.S. courts can rule in favour of detaining a watercourse for commercial development
4. certain riparian owners have rights that are incident to possession of their land

**23. The passage implies that in the 'reasonable use doctrine'.....**

1. is applied in few of the jurisdictions in the United States today
2. riparian owners may divert a watercourse for commercial development
3. water can be used only after land has been possessed for a long time
4. riparian owners cannot really enjoy the natural condition of a watercourse

**24. We may understand from the passage that.....**

1. riparian owners do not diminish the quantity or quality of a watercourse(s)
2. the jurisdiction of a watercourse usually depends on two categories
3. reasonable use doctrine is a restricted form of the natural flow doctrine
4. 'natural flow doctrine' used to be more commonly applied in the US



**25. Had the passage continued, it would most probably have dealt with.....**

- |  |                                      |
|--|--------------------------------------|
| 1. interference by riparian owners     | 2. riparian rights in some US states |
| 3. another category of riparian rights | 4. reasonable use of riparian rights |

### **PASSAGE 3**

Wetland soils may need drainage to be used for agriculture. In the northern USA and Europe, glaciation created numerous small lakes which gradually filled with humus to make marshes. Some of these were drained using open ditches and trenches to make mucklands, which are primarily used for high value crops such as vegetables. The largest project of this type in the world has been in process for centuries in the Netherlands. The area between Amsterdam, Haarlem and Leiden was, in prehistoric times swampland and small lakes. Turf cutting (Peat mining), subsidence and shoreline erosion gradually caused the formation of one large lake, the Haarlemmermeer, or lake of Haarlem. The invention of wind powered pumping engines in the 15th century permitted drainage of some of the marginal land, but the final drainage of the lake had to await the design of large, steam powered pumps and agreements between regional authorities. The elimination of the lake occurred between 1849 and 1852, creating thousands of km<sup>2</sup> of new land. Coastal plains and river deltas may have seasonally or permanently high water tables and must have drainage improvements if they are to be used for agriculture. An example is the flatwoods citrus-growing region of Florida. After periods of high rainfall, drainage pumps are employed to prevent damage to the citrus groves from overly wet soils. Rice production requires complete control of water, as fields need to be flooded or drained at different stages of the crop cycle. The Netherlands has also led the way in this type of drainage, not only to drain lowland along the shore, but actually pushing back the sea until the original nation has been greatly enlarged.

**26. It is stated in the passage that.....**

1. shoreline erosion causes the formation of large lakes in coastal areas
2. regional authorities do not usually agree on the drainage of lakes in the Netherlands
3. in northern America high value crops (as vegetables) are grown near marshes
4. the Haarlemmermeer was located between Amsterdam, Haarlem and Leiden

**27. The passage points to the fact that.....**

1. the Netherlands owes its size partly to drainage
2. Amsterdam was swampland in prehistoric times
3. the Netherlands was a larger country before 1852
4. drainage is not a major issue along lowland shores

**28. We understand from the passage that.....**

1. mucklands were drained to develop ditches for irrigation purposes
2. rice can be best planted on continuously drained wetland fields
3. wind powered pumping engines did not exist before the 15<sup>th</sup> century
4. citrus fruit soil need to be drained two to three times a year

**29. The passage mentions that.....**

1. drainage of marginal land was made possible in the period 1849 to 1852
2. the soil in flatwoods citrus-growing region of Florida is often extremely wet
3. small lakes in Europe are gradually filled with humus to make marshes
4. river deltas have permanently high water tables in the raining season

**30. The word 'trench' in the passage (underlined) is best related to the word.....**

- |          |           |
|----------|-----------|
| 1. 'cut' | 2. 'flow' |
| 3. 'dry' | 4. 'wet'  |

نوع دفترچه	نام رشته امتحانی	کد رشته امتحانی
F	مجموعه مهندسی منابع طبیعی مرتع و آبخیزداری	1301

شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح
1	1	31	1	61	4	91	4	121	1	151	4
2	3	32	1	62	1	92	4	122	2	152	3
3	4	33	2	63	1	93	1	123	4	153	1
4	2	34	4	64	2	94	4	124	3	154	4
5	3	35	3	65	3	95	1	125	1	155	1
6	1	36	2	66	3	96	2	126	2	156	3
7	4	37	3	67	4	97	3	127	3	157	1
8	2	38	4	68	2	98	2	128	4	158	4
9	4	39	1	69	4	99	1	129	4	159	3
10	3	40	4	70	2	100	3	130	3	160	4
11	1	41	2	71	1	101	4	131	4	161	1
12	3	42	1	72	1	102	3	132	1	162	2
13	2	43	1	73	3	103	4	133	2	163	3
14	4	44	3	74	3	104	2	134	3	164	1
15	1	45	4	75	2	105	3	135	1	165	2
16	3	46	2	76	4	106	2	136	2	166	2
17	4	47	3	77	3	107	4	137	4	167	2
18	1	48	4	78	2	108	1	138	2	168	4
19	2	49	2	79	4	109	2	139	3	169	4
20	4	50	3	80	1	110	4	140	3	170	4
21	1	51	2	81	4	111	3	141	1	171	3
22	2	52	4	82	3	112	3	142	4	172	3
23	2	53	4	83	3	113	4	143	2	173	4
24	4	54	1	84	2	114	1	144	1	174	4
25	3	55	1	85	1	115	3	145	2	175	3
26	4	56	3	86	1	116	4	146	3	176	3
27	1	57	2	87	2	117	2	147	1	177	3
28	3	58	3	88	3	118	1	148	4	178	1
29	2	59	1	89	1	119	3	149	3	179	1
30	1	60	3	90	4	120	2	150	2	180	1

شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح	شماره سوال	گزینه صحیح
181	3	211	1	241	4	271	سفید	301	سفید
182	4	212	3	242	1	272	سفید	302	سفید
183	4	213	2	243	2	273	سفید	303	سفید
184	3	214	4	244	3	274	سفید	304	سفید
185	3	215	3	245	3	275	سفید	305	سفید
186	1	216	4	246	2	276	سفید	306	سفید
187	3	217	3	247	1	277	سفید	307	سفید
188	4	218	2	248	2	278	سفید	308	سفید
189	2	219	1	249	4	279	سفید	309	سفید
190	2	220	1	250	4	280	سفید	310	سفید
191	2	221	4	251	4	281	سفید	311	سفید
192	1	222	4	252	3	282	سفید	312	سفید
193	3	223	2	253	3	283	سفید	313	سفید
194	1	224	2	254	1	284	سفید	314	سفید
195	4	225	1	255	3	285	سفید	315	سفید
196	1	226	4	256	1	286	سفید	316	سفید

197	2	227	4	257	4	287	سفید	317	سفید
198	3	228	4	258	4	288	سفید	318	سفید
199	4	229	1	259	1	289	سفید	319	سفید
200	3	230	2	260	1	290	سفید	320	سفید
201	2	231	3	261	2	291	سفید	321	سفید
202	2	232	3	262	2	292	سفید	322	سفید
203	4	233	3	263	3	293	سفید	323	سفید
204	2	234	1	264	2	294	سفید	324	سفید
205	1	235	1	265	4	295	سفید	325	سفید
206	1	236	2	266	1	296	سفید	326	سفید
207	4	237	3	267	3	297	سفید	327	سفید
208	4	238	1	268	4	298	سفید	328	سفید
209	3	239	3	269	1	299	سفید	329	سفید
210	1	240	2	270	1	300	سفید	330	سفید