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प्रश्नपुस्तिका क्रमांक
BOOKLET No.

2022



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प्रश्नपुस्तिका - II G17

संच क्र.

GENERAL SCIENCE AND
NATURE CONSERVATION

वेळ : 1 (एक) तास

एकूण प्रश्न : 100
एकूण गुण : 200

सूचना

- (1) सदर प्रश्नपुस्तिकेत 100 अनिवार्य प्रश्न आहेत. उमेदवारांनी प्रश्नांची उत्तरे लिहिण्यास सुरुवात करण्यापूर्वी या प्रश्नपुस्तिकेत सर्व प्रश्न आहेत किंवा नाहीत याची खात्री करून घ्यावी. तसेच अन्य काही दोष आढळल्यास ही प्रश्नपुस्तिका समवेक्षकांकडून लगेच बदलून घ्यावी.
 - (2) आपला परीक्षा-क्रमांक ह्या चौकोनांत न विसरता बॉलपेनने लिहावा.
- | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|
| परीक्षा-क्रमांक | | | | | | | | | |
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केंद्राची संकेताक्षरे शेवटचा अंक
- (3) वर छापलेला प्रश्नपुस्तिका क्रमांक तुमच्या उत्तरपत्रिकेवर विशिष्ट जागी उत्तरपत्रिकेवरील सूचनेप्रमाणे न विसरता नमूद करावा.
 - (4) या प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाला 4 पर्यायी उत्तरे सुचविली असून त्यांना 1, 2, 3 आणि 4 असे क्रमांक दिलेले आहेत. त्या चार उत्तरांपैकी सर्वात योग्य उत्तराचा क्रमांक उत्तरपत्रिकेवरील सूचनेप्रमाणे तुमच्या उत्तरपत्रिकेवर नमूद करावा. अशा प्रकारे उत्तरपत्रिकेवर उत्तरक्रमांक नमूद करताना तो संबंधित प्रश्नक्रमांकासमोर छायांकित करून दर्शविला जाईल याची काळजी घ्यावी. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.
 - (5) सर्व प्रश्नांना समान गुण आहेत. यास्तव सर्व प्रश्नांची उत्तरे द्यावीत. घाईमुळे चुका होणार नाहीत याची दक्षता घेऊनच शक्य तितक्या वेगाने प्रश्न सोडवावेत. क्रमाने प्रश्न सोडविणे श्रेयस्कर आहे पण एखादा प्रश्न कठीण वाटल्यास त्यावर वेळ न घालविता पुढील प्रश्नांकडे वळावे. अशा प्रकारे शेवटच्या प्रश्नापर्यंत पोहोचल्यानंतर वेळ शिल्लक राहिल्यास कठीण म्हणून वगळलेल्या प्रश्नांकडे परतणे सोईस्कर ठरेल.
 - (6) उत्तरपत्रिकेत एकदा नमूद केलेले उत्तर खोडता येणार नाही. नमूद केलेले उत्तर खोडून नव्याने उत्तर दिल्यास ते तपासले जाणार नाही. एकापेक्षा जास्त उत्तरे नमूद केल्यास ते उत्तर चुकीचे धरले जाईल व त्या चुकीच्या उत्तराचे गुण वजा केले जातील.
 - (7) प्रस्तुत परीक्षेच्या उत्तरपत्रिकांचे मूल्यांकन करताना उमेदवाराच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच “उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार उत्तरांपैकी सर्वात योग्य उत्तरेच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चुकीच्या उत्तरांसाठी 25% किंवा 1/4 गुण वजा/कमी करण्यात येतील”.

ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवाराला परीक्षेसाठी वापरण्यास देण्यात येत आहे. ही वेळ संपेपर्यंत सदर प्रश्नपुस्तिकेची प्रत/प्रती, किंवा सदर प्रश्नपुस्तिकेतील काही आशय कोणत्याही स्वरूपात प्रत्यक्ष वा अप्रत्यक्षपणे कोणत्याही व्यक्तीस पुरविणे, तसेच प्रसिद्ध करणे हा गुन्हा असून अशी कृती करणाऱ्या व्यक्तीवर शासनाने जारी केलेल्या “परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचा अधिनियम-82” यातील तरतुदीनुसार तसेच प्रचलित कायद्याच्या तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

तसेच ह्या प्रश्नपत्रिकेसाठी विहित केलेली वेळ संपण्याआधी ही प्रश्नपुस्तिका अनधिकृतपणे बाळगणे हा सुद्धा गुन्हा असून तसे करणारी व्यक्ती आयोगाच्या कर्मचारीवृंदापैकी, तसेच परीक्षेच्या पर्यवेक्षकीयवृंदापैकी असली तरीही अशा व्यक्तीविरुद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

पुढील सूचना प्रश्नपुस्तिकेच्या अंतिम पृष्ठावर पहा

पर्यवेक्षकांच्या सूचनेविना हे सील उघडू नये

G17

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कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK



1. In energy pyramid, there is a/an _____ quantity of energy available at each trophic level.
(1) increasing (2) decreasing
(3) constant (4) All of the above
-
2. Which one of the following is **not** a gaseous biogeochemical cycle in an ecosystem ?
(1) Sulphur cycle (2) Nitrogen cycle
(3) Phosphorus cycle (4) Carbon cycle
-
3. Which is a rich manure of major and minor plant nutrients ?
(1) FYM (2) Vermicompost
(3) Rhizobium (4) Biofertilizer
-
4. Which of the following fertilizers contains Nitrogen in amide form ?
(1) Urea
(2) Sodium Nitrate
(3) Ammonium Sulphate
(4) Ammonium Nitrate
-
5. Ribbing of leaflets or flaccidity is a typical character of _____ disease.
(1) Root Wilt of Coconut
(2) Black Spot of Rose
(3) Oily Spot of Pomegranate
(4) Vascular Wilts
-
6. Milk fever in cattle is caused due to :
(1) Inadequate proteins in fodder
(2) Decrease in phosphorus in the field
(3) High fever
(4) Decrease in the level of calcium in tissue fluid
-
7. The toxicant, which in its gaseous state penetrates insect through the tracheal system and kills the pest species is said to be a :
(1) Contact poison
(2) Fumigant
(3) Stomach poison
(4) None of the above

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

P.T.O.

8. Pesticides of _____ group act as nematicides.

- (1) Carbamate
- (2) Isothiocyanate
- (3) Organophosphate
- (4) All of the above

9. Gelatinous Seed Coat is present in _____ .

- (1) Loranthus
- (2) Cuscuta
- (3) Striga
- (4) Orobanche

10. By which organ does *Cyperus rotundus* propagate vegetatively ?

- (1) Runners
- (2) Suckers
- (3) Tubers
- (4) Offsets

11. Which of the following statements is/are correct about eutrophication ?

- (a) An increase in nutrient levels
- (b) An increase in biological productivity
- (c) Decrease in nutrient levels and increase in biological productivity
- (d) Decrease in biological productivity and increase in nutrient levels

Answer options :

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

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

12. In Carnation, the 'Sleepiness' disease in plants refers to yellowing and withering of the petal and slow opening of buds and flower is due to _____.
(1) Ozone (2) CO₂
(3) Ethylene (4) Smog
-
13. Which of the following region is in danger because of uncontrolled limestone quarrying and has been stripped bare of its unique cover ? The area under tree cover of valley is now reported to be only 12 percent as against officially recommended 60 percent.
(1) Upper Ganga Valley (2) Doon Valley
(3) Damodar Valley (4) Ganga-Yamuna Doab
-
14. In order to check adverse effects of mining on environment, which of the following objectives was included in new mining policy of 1993 ?
(1) Regular supply of minerals to industries
(2) Social forestry
(3) Promote research
(4) Public sector mining
-
15. Which concept came into existence as a result of increasing awareness about the need for pollution control which was formalized in the Kyoto Protocol ?
(1) Biodiversity
(2) Carbon trading
(3) Ecotourism
(4) Sustainable Forest Management
-
16. Intergovernmental Panel on Climate Change (IPCC) is a scientific intergovernmental body set up by :
(1) World Meteorological Organization (WMO)
(2) United Nations (UN) and World Meteorological Organization (WMO)
(3) United Nations Framework Convention on Climate Change (UNFCCC)
(4) World Meteorological Organization (WMO) and the United Nations Environmental Programme (UNEP)

17. Among the following, which one is **not** the characteristic feature of the order Proboscidea ?

- (1) The soles of the feet are covered with soft and fatty cushion white elastic fibres.
- (2) Ears are like the radiator of a car.
- (3) They are ruminants and have no gall bladder.
- (4) The kidney has 5 – 7 lobes.

18. Match the pairs of animal order with their moving habits :

- | | |
|----------------------|--|
| (a) Order Chiroptera | (i) Burrows, digs and also climbs |
| (b) Order Dermoptera | (ii) Moves fast, swings from tree to tree |
| (c) Order Primates | (iii) Are arboreal creatures and efficient gliders |
| (d) Order Pholidota | (iv) Are mammals capable of sustained flight |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|-------|-------|-------|------|
| (1) | (i) | (ii) | (iii) | (iv) |
| (2) | (ii) | (iii) | (iv) | (i) |
| (3) | (iii) | (ii) | (i) | (iv) |
| (4) | (iv) | (iii) | (ii) | (i) |

19. The cattle breed found in the States of Gujarat and Rajasthan which has a peculiar gait known as "Sawai Chal" is :

- | | |
|-------------|----------------|
| (1) Kankrej | (2) Gir |
| (3) Rathi | (4) Tharparkar |

20. Which of the following is the most suitable crop for silage making ?

- | | |
|------------|-------------|
| (1) Maize | (2) Cowpea |
| (3) Barsim | (4) Lucerne |

21. The principal timber-yielding plants of India include :

- | | |
|------------------|----------------------|
| (1) Walnut | (2) Deodar |
| (3) White willow | (4) All of the above |

22. _____, being a Cathartic, is used for the treatment of atomic radiation burns.

- (1) *Digitalis purpurea*
- (2) *Cinchona* spp.
- (3) *Aloe* spp. (Aloe vera)
- (4) *Mandragora officinarum*

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

23. The deciduous tree with bright pink to light lavender colour flowers, known as _____ in Marathi is recognized as the State Flower of Maharashtra.
(1) Ashoka (2) Tamhan
(3) Kamala (4) Chandaini Gonda
-
24. _____ tree, commonly also called Indian ebony, the leaves of which are used in the manufacture of beedis (bidis), the traditional cigarette of India.
(1) Arjuna (2) Tendu (3) Babul (4) Khair
-
25. The botanical name of timber plant, Indian rosewood is _____.
(1) *Pinus roxburghii* Sar (2) *Morus alba* Linn
(3) *Dalbergia latifolia* Roxb (4) *Cedrus deodara* Loud
-
26. The term used to refer to the seasonal changes in the development of foliage, flowering, fruiting, etc. in trees in response to climatic factors is _____.
(1) Genology (2) Phenology (3) Ecology (4) Forestry
-
27. The *Dipterocarpus*, *Kayea* and *Mesua* species are the components of _____ forest type.
(1) Tropical Wet Evergreen (2) Moist Deciduous
(3) Alpine Scrub (4) Thorn
-
28. Southern Tropical Wet Evergreen forests are found in _____.
(a) Maharashtra (b) Karnataka (c) Kerala (d) Andamans
Answer options :
(1) (a), (b) and (c) (2) (a), (b), (c) and (d)
(3) Only (c) (4) Only (d)
-
29. Dry Alpine Scrub forest consists of _____.
(1) xerophytic formation with dwarf shrubs
(2) mesophytic formation with dwarf shrubs
(3) xerophytic formation with tall shrubs
(4) mesophytic formation with tall shrubs
-
30. The law which defines that all organisms have an ecological minimum and maximum for a factor is :
(1) Liebig's law of Minimum
(2) Shelford's law of Tolerance
(3) Principle of Dynamism
(4) Principle of Thermodynamics

31. Consider the following statements :

- (a) Sariska is a National Park located in Rajasthan.
- (b) Sariska is also a Tiger Reserve.
- (c) Task Force was established for the crisis of loss of tigers in the protected reserve of Sariska.

Which of the above statements is/are correct ?

- (1) Only (a) and (c)
- (2) All of the above
- (3) Only (a) and (b)
- (4) None of the above

32. As of 2022, Maharashtra holds _____ rank in terms of number of wildlife sanctuaries in Indian States.

- (1) 1st (2) 2nd (3) 3rd (4) 4th

33. Match the National Parks with their State :

- | | |
|-------------------------------|------------------------|
| (a) Bandhavgarh National Park | (i) Uttar Pradesh |
| (b) Dachigam National Park | (ii) West Bengal |
| (c) Dudhwa National Park | (iii) Madhya Pradesh |
| (d) Sundarban National Park | (iv) Jammu and Kashmir |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|-------|-------|------|-------|
| (1) | (ii) | (i) | (iv) | (iii) |
| (2) | (iii) | (iv) | (i) | (ii) |
| (3) | (i) | (ii) | (iv) | (iii) |
| (4) | (iv) | (iii) | (i) | (ii) |

34. In the first two decades of 21st century, the number of protected areas in India has increased from 574 to 987. However, most of the increase in numbers has taken place in :

- (a) National Parks
- (b) Wildlife Sanctuaries
- (c) Community Reserves
- (d) Conservation Reserves

Which of the above is/are correct ?

- | | |
|----------------------|----------------------|
| (1) Only (a) | (2) Only (b) |
| (3) Only (a) and (b) | (4) Only (c) and (d) |

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

35. The term used to designate area dedicated by statute for conservation of scenery, natural and historical objects, wildlife and wild vegetation for the benefit of public, where hunting of fauna and collection of flora is prohibited is :
- | | |
|------------------------|-------------------------------|
| (1) Archeological Site | (2) Ex-situ Conservation Site |
| (3) National Park | (4) Protection Division |

36. An extension approach that enables local people to share, enhance and analyse their knowledge and living condition to plan and act is :
- | |
|-----------------------------------|
| (1) Rapid Rural Appraisal |
| (2) Participatory Rural Appraisal |
| (3) Socialism Index |
| (4) Structural Analysis |

37. In India, Social Forestry Programme began in _____.
- | | | | |
|----------|----------|----------|----------|
| (1) 1950 | (2) 1960 | (3) 1965 | (4) 1970 |
|----------|----------|----------|----------|

38. Alley cropping is :
- | |
|---|
| (a) also known as hedgerow intercropping |
| (b) retaining fast-growing, preferably N-fixing trees or shrubs |
| (c) practiced only in tropical regions |
- Which of the above is/are correct ?
- | |
|----------------------|
| (1) Only (a) |
| (2) Only (b) |
| (3) Only (c) |
| (4) Only (a) and (b) |

39. An Eco-Development Committee (EDC) is different from a Joint Forest Management Committee (JFMC) in that
- | |
|---|
| (a) it is for villages in protected areas. |
| (b) it is for villages in buffer zone of protected areas. |
| (c) it is for villages in Special Economic Zone. |

Answer options :

- | | |
|--------------|----------------------|
| (1) Only (a) | (2) Only (b) |
| (3) Only (c) | (4) Only (a) and (b) |

40. The tree species preferred by farmers of Punjab under agri-silviculture system is _____.
- | | |
|-------------|----------------|
| (1) Populus | (2) Artocarpus |
| (3) Cashew | (4) Mango |

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

P.T.O.

41. Protected areas are notified and managed under the provisions of the _____.

- (1) Wildlife (Protection) Act, 1972
- (2) Forest (Conservation) Act, 1980
- (3) Forest Rights Act, 2006
- (4) Environmental (Protection) Act, 1986

42. 'Everything is permitted unless prohibited.' This statement is applicable to :

- (a) Reserved forests
- (b) Protected forests
- (c) Village forests
- (d) Private forests

Which option/s is/are correct as per the provisions of the Indian Forest Act, 1927 ?

- (1) Only (a)
- (2) Only (b)
- (3) Both (b) and (d)
- (4) Both (a) and (c)

43. According to Chapter VIII of the Indian Forest Act, 1927, any Forest Officer can collect some material which is adrift, beached, stranded or sunk. Which material is referred to here ?

- (1) Fodder
- (2) Wild animal
- (3) Stray cattle
- (4) Timber

44. The main drawback of the Forest Policy, 1894 was :

- (a) Claim of cultivation was considered stronger than forest.
- (b) It had no provision for wildlife.
- (c) It did not consider the protection and environment values of forests.

Answer options :

- (1) (a) and (b)
- (2) Only (a)
- (3) (a) and (c)
- (4) All of the above

45. In the Forest (Conservation) Act, 1980, the term 'non-forest purpose' includes cultivation of :

- (a) tea and coffee
- (b) horticultural crops
- (c) medicinal plants

Answer options :

- (1) Only (a)
- (2) Only (a) and (b)
- (3) Only (c)
- (4) All of the above

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

46. UNDP's mandate is :

- (a) the assessment of climate change
- (b) to fight poverty
- (c) human well-being, environmental conservation and equity
- (d) implementing environmentally sound policies and practices

Answer options :

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

47. To prevent over-exploitation of wild fauna and flora through International Trade, a convention on _____ was signed at Washington on 3rd March, 1973.

- (1) Wild Life Protection Act
- (2) Union for Conservation of Nature and Natural Resources
- (3) World Wide Fund for Nature
- (4) International Trade in Endangered Species

48. India established _____ in March 1993, to discuss about the protection of tiger population in the world.

- (1) Tiger Preservation Society of India
- (2) Global Tiger Forum
- (3) International Union for Conservation of Nature and Natural Resources
- (4) Conservation Tiger Specialist Group

49. Which of the following are correctly matched ?

Convention	Year
(a) Convention on International Trade in Endangered Species	— 1973
(b) Convention on Biological Diversity	— 1991
(c) Convention on Wetlands of International Importance	— 1971
(d) Convention on Migratory Species of Wild Animals	— 1979

Answer options :

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

50. The International Tropical Timber Organization (ITTO) has its headquarters in :

- (1) Bogor, Indonesia (2) Nairobi, Kenya
- (3) London, UK (4) Yokohama, Japan

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

P.T.O.

51. Geodetic control network, topographic base and graphical overlays are various categories of :
- (1) Geoscientific data
 - (2) Geospatial data
 - (3) Geometric data
 - (4) Google data
-
52. Geographic Information System deals with which kind of data ?
- (1) Numeric data
 - (2) Complex data
 - (3) Binary data
 - (4) Spatial data
-
53. Consider the following statements about National Biodiversity Authority (NBA) of India :
- (a) It was established in 2003.
 - (b) Its headquarters is in Chennai.
 - (c) It is a statutory body.
- Which of the above statements is/are correct ?
- (1) Only (a)
 - (2) Only (b)
 - (3) Only (a) and (c)
 - (4) All of the above
-
54. The characteristic of a vegetation commonly evaluated as a measure of dominance is :
- (1) Biomass
 - (2) Basal area
 - (3) Canopy area
 - (4) All of the above
-
55. Aichi Biodiversity targets :
- (a) to have 5 strategic goals
 - (b) to have 40 targets
 - (c) are for 2011 – 2020
- Which of the above is/are correct ?
- (1) Only (a)
 - (2) Only (b)
 - (3) Only (a) and (b)
 - (4) Only (a) and (c)
-

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56. People's Biodiversity Registers are to be prepared at the level of :

- (a) National Biodiversity Authority
- (b) State Biodiversity Board
- (c) Biodiversity Management Committee

Answer options :

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

57. _____ is a fragment of tissue transplanted from its original site and maintained in an artificial medium.

- (1) Cell
- (2) Subculture
- (3) Explant
- (4) Primary culture

58. The Mongoloid tribes living in the Northeastern States of India, namely Naga-Kuki make their living by practicing :

- (1) Shifting cultivation
- (2) Permanent cultivation
- (3) Dairy
- (4) None of the above

59. The advantage of double haploid lines over conventional inbred lines

- (1) is stable in expression over generations.
- (2) creates variability.
- (3) shows heterosis.
- (4) is the best morphological marker.

60. _____ includes a variety of land uses, where woody species are grown in combination with herbaceous crops, either at the same time or in time sequence.

- (1) Social forestry
- (2) Woody forestry
- (3) Agroforestry
- (4) Dense forestry

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61. Our Solar System is just one of many Solar Systems in the _____ galaxy.
(1) Andromeda (2) Triangulum
(3) Milky Way (4) Cigar
-
62. When the current increases, potential drop across the conductor _____.
(1) Increases (2) Decreases
(3) No change (4) None of the above
-
63. Three resistances of $500\ \Omega$, $5000\ \Omega$ and $50\ \Omega$ are connected in series across a 555 Volt mains. What is the current flowing through them?
(1) 1 A (2) 100 mA (3) 10 mA (4) 10 A
-
64. Energy can be transformed from one form to another but it cannot be created or destroyed. The total amount of energy in a universe remains constant. This is the statement of Law of _____.
(1) Gravitational Force (2) Nuclear Force
(3) Conservation of Energy (4) Chemical Kinetics
-
65. When an electric current passes through a tungsten filament of an electric bulb, the filament emits light. This is due to the _____ effect of electric current.
(1) Mechanical (2) Magnetic
(3) Chemical (4) Heating
-
66. _____ is composed almost entirely of methane although it does contain small amounts of other gases. These are ethane, propane, butane and pentane.
(1) Natural gas (2) Inert gas
(3) Neon gas (4) Xenon gas
-
67. While seeing objects at large distances, the lens of the eye becomes flat and its focal length _____, while seeing nearby objects the lens becomes more rounded and its focal length _____.
(1) decreases, increases (2) increases, decreases
(3) decreases, remains constant (4) remains constant, increases
-
68. The speed of a wave along a stretched ideal string depends on
(1) frequency of wave of the string.
(2) only tension in the string.
(3) only linear density of the string.
(4) both tension and linear density of the string.
-
69. Fe is a member of _____ series of Periodic Table.
(1) 2nd transition (2) 1st actinide
(3) 1st transition (4) 2nd actinide
-

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70. Manufacturing of Ammonia by Haber process uses the following suitable catalyst economically :
- (1) Platinized asbestos
 - (2) Iron
 - (3) Copper oxide
 - (4) Nickel
-
71. During recycling of waste disinfected water, there is removal of _____.
- (1) Elements
 - (2) Viruses and Parasites
 - (3) Stones
 - (4) None of the above
-
72. Which is the chemical used for cloud seeding ?
- (1) AgI
 - (2) NaOH
 - (3) NaCl
 - (4) NH_4OH
-
73. Rayon is different from synthetic fibres because :
- (1) It is the other name of silk
 - (2) It is obtained from wood pulp by chemical treatment.
 - (3) It is a natural fibre and used as it is.
 - (4) None of the above
-
74. What is the total number of orbitals associated with principal quantum number $n = 4$?
- (1) 2
 - (2) 4
 - (3) 9
 - (4) 16
-
75. Which of the following carbon isotopes is used to determine the age of the objects of plant or animal origin ?
- (1) C-12
 - (2) C-13
 - (3) C-14
 - (4) None of the above
-
76. The mass of a neutron is equal to that of a/an _____.
- (1) proton
 - (2) electron
 - (3) meson
 - (4) None of the above

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77. Match the following Taxonomists with their books on Plant Classification System :

- | | |
|------------------------|--|
| (a) Engler and Prantl | (i) The Evolution and Classification of Flowering Plants |
| (b) John Hutchinson | (ii) Die or Natürlichen Pflanzenfamilien |
| (c) Bentham and Hooker | (iii) Families of the Flowering Plants |
| (d) Arthur Cronquist | (iv) Genera Plantarum |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|-------|-------|------|-------|
| (1) | (ii) | (iv) | (i) | (iii) |
| (2) | (iii) | (ii) | (i) | (iv) |
| (3) | (ii) | (iii) | (iv) | (i) |
| (4) | (iii) | (iv) | (i) | (ii) |

78. The percent amount of NPK in Fish manure is _____, _____ and _____.

- | | |
|-------------------------|-------------------------|
| (1) 7.80%, 2.30%, 2.22% | (2) 5.20%, 1.00%, 1.40% |
| (3) 4.30%, 2.00%, 1.00% | (4) 4.10%, 3.90%, 0.30% |

79. Angiosperm Phylogeny Group developed APG classification in _____.

- | | | | |
|----------|----------|----------|----------|
| (1) 1996 | (2) 1997 | (3) 1993 | (4) 1998 |
|----------|----------|----------|----------|

80. White rust on radish and turnip are controlled by spraying _____.

- | | |
|---------------------------|------------------------|
| (1) 0.02% Copper Sulphate | (2) 0.20% Dithane Z-78 |
| (3) 0.20% of Zineb | (4) 2% Mancozeb |

81. Which of the following crops are benefitted by Azospirillum ?

- | | |
|-------------------|--------------------------|
| (1) Bajra, Maize | (2) Chili, Tomato |
| (3) Potato, Onion | (4) Groundnut, Sunflower |

82. Which of the following pests attacks cole crops ?

- | | |
|--------------|-----------------|
| (1) Mealybug | (2) Aphid |
| (3) Whitefly | (4) Fungus gnat |

83. The insect larvae of certain butterflies and moths are best controlled with the help of a microbe such as _____.

- | | |
|-----------------------------------|---------------------------------|
| (1) <i>Ectocarpus secundes</i> | (2) <i>Marchantia simlana</i> |
| (3) <i>Bacillus thuringiensis</i> | (4) <i>Cladonia rangiferina</i> |

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84. Match the following :

- | | |
|-----------------|--------------------|
| (a) Dragonflies | (i) Plecoptera |
| (b) Fishflies | (ii) Ephemeroptera |
| (c) Mayflies | (iii) Neuroptera |
| (d) Stoneflies | (iv) Odonata |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|-------|-------|-------|------|
| (1) | (iv) | (iii) | (ii) | (i) |
| (2) | (iii) | (ii) | (i) | (iv) |
| (3) | (iv) | (i) | (iii) | (ii) |
| (4) | (ii) | (i) | (iii) | (iv) |

85. Coat colour in Rabbit and Blood groups in Man are the best examples of :

- | | |
|----------------------------|---------------------------|
| (1) Sex-linked Inheritance | (2) Polygenic Inheritance |
| (3) Law of Inheritance | (4) Multiple alleles |

86. Match the following :

- | | |
|---------------------|-------------------------|
| (a) Dipnoi | (i) Cyclostomes |
| (b) Elasmobranchii | (ii) Lung fish |
| (c) Teleostei | (iii) Bony fish |
| (d) Marsipobranchii | (iv) Cartilaginous fish |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|------|-------|-------|------|
| (1) | (ii) | (iv) | (iii) | (i) |
| (2) | (ii) | (iii) | (iv) | (i) |
| (3) | (i) | (iv) | (iii) | (ii) |
| (4) | (iv) | (iii) | (ii) | (i) |

87. Which coelenterata is popularly known as "sea pen" or "sea feather" ?

- | | |
|---------------|---------------|
| (1) Alcyonium | (2) Pennatula |
| (3) Gorgonia | (4) Aurelia |

88. Mode of feeding in free living protozoans is :

- | | |
|----------------------|-----------------------|
| (1) Holozoic | (2) Saprozoic |
| (3) Both (1) and (2) | (4) None of the above |

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89. Match the following :

- | | |
|----------------------------------|-------------------|
| (a) Hydra | (i) Protozoa |
| (b) Opalina | (ii) Porifera |
| (c) Sycon | (iii) Annelida |
| (d) <i>Hirudinaria granulosa</i> | (iv) Coelenterata |

Answer options :

- | | (a) | (b) | (c) | (d) |
|-----|-------|------|-------|-------|
| (1) | (iv) | (i) | (iii) | (ii) |
| (2) | (iv) | (i) | (ii) | (iii) |
| (3) | (i) | (ii) | (iii) | (iv) |
| (4) | (iii) | (i) | (ii) | (iv) |

90. The young are born alive but in a rudimentary undeveloped condition is known as :

- | | |
|-----------------|-----------------------|
| (1) Metatheria | (2) Eutheria |
| (3) Prototheria | (4) None of the above |

91. The horizon 'E' or 'A₂' in soil profile is known as :

- (1) Horizon of maximum eluviation
- (2) Top most mineral horizon
- (3) Transition layer
- (4) Horizon of maximum accumulation

92. The texture of soil is a basic property of soil because :

- (1) it is decided by relative proportion of different size particles forming the soil.
- (2) the size of particles in mineral soils is not subject to change by simple cultural practices.
- (3) particle size can be decided by hydrometric method.
- (4) All of the above

93. Which of the following organisms is associated with phosphate solubility ?

- (1) *Aspergillus awamori*
- (2) *Azotobacter*
- (3) *Thiobacillus thiooxidans*
- (4) *Clostridium*

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94. Basic principle of reclamation of Sodic soils is :
(1) to have intermittent ponding for leaching of salts.
(2) to replace Na^+ by Ca^{++} and leach released Na^+ .
(3) to remove excess salts below the root zone.
(4) All of the above
-
95. The process of impoverishment of terrestrial ecosystems under impact of human activities is called _____.
(1) Sodication (2) Desertification
(3) Acidification (4) Land degradation
-
96. The detachment of soil particles from parent material, their transportation by suitable agent and deposition due to gravitational forces at some place is known as :
(1) Accelerated erosion
(2) Soil erosion
(3) Water erosion
(4) Wind erosion
-
97. Rolling or sliding of larger soil particles along the land surface moved by particles in saltation, rather than action of wind force is called _____.
(1) Suspension
(2) Sheet erosion
(3) Splash erosion
(4) Surface creep
-
98. The relationship between horizontal cross-sectional areas and altitudes of the watershed is known as :
(1) Contour (2) Hypsometric curve
(3) Isobath (4) Isocline
-
99. Grassed waterways are designed to suit the average flow velocity as _____.
(1) 1.0 m/s (2) 1.5 to 2 m/s
(3) 2.5 m/s (4) None of the above
-
100. _____ is the ratio of total length of stream to the watershed area.
(1) Elongation ratio
(2) Circularity ratio
(3) Relief ratio
(4) Drainage density
-

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सूचना - (पृष्ठ 1 वरून पुढे.....)

- (8) प्रश्नपुस्तिकेमध्ये विहित केलेल्या विशिष्ट जागीच कच्चे काम (रफ वर्क) करावे. प्रश्नपुस्तिकेव्यतिरिक्त उत्तरपत्रिकेवर वा इतर कागदावर कच्चे काम केल्यास ते काँपी करण्याच्या उद्देशाने केले आहे, असे मानले जाईल व त्यानुसार उमेदवारावर शासनाने जारी केलेल्या “परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचे अधिनियम-82” यातील तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.
- (9) सदर प्रश्नपत्रिकेसाठी आयोजाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वतःबरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. मात्र परीक्षाकक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षकाकडे न विसरता परत करणे आवश्यक आहे.

नमुना प्रश्न

Pick out the correct word to fill in the blank :

Q. No. 201. I congratulate you _____ your grand success.

- (1) for (2) at
(3) on (4) about

ह्या प्रश्नाचे योग्य उत्तर “(3) on” असे आहे. त्यामुळे या प्रश्नाचे उत्तर “(3)” होईल. यास्तव खालीलप्रमाणे प्रश्न क्र. 201 समोरील उत्तर-क्रमांक “(3)” हे वर्तुळ पूर्णपणे छायांकित करून दाखविणे आवश्यक आहे.

प्र. क्र. 201. (1) (2) (3) (4)

अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तरक्रमांक हा तुम्हाला स्वतंत्ररीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायांकित करून दाखवावा. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.

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