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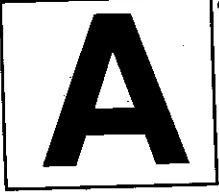
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**2022**





→ संच क्रमांक

प्रश्नपुस्तिका क्रमांक

BOOKLET NO.

201997

**प्रश्नपुस्तिका - II**  
**GENERAL SCIENCE AND**  
**NATURE CONSERVATION**

एकूण प्रश्न : 100

एकूण गुण : 200

वेळ : 1 (एक) तास

**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.

परीक्षा-क्रमांक									

↑ केंद्राची संकेताक्षरे

↑ शेवटचा अंक

- (2) आपला परीक्षा-क्रमांक ह्या चौकोनांत न विसरता बॉलपेनने लिहावा.
- (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 उत्तरापैकी 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 उमेदवारांच्या उत्तरपत्रिकेतील योग्य उत्तरांचा गुण दिले जातील. तसेच “उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार उत्तरापैकी सर्वात योग्य उत्तरे उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चुकीच्या उत्तरासाठी 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 संपल्याआधी 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

कच्च्या कामासाठी जागा/SPACE FOR ROUGH WORK



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A

1. If two conductors of resistances  $R_1$  &  $R_2$  with resistance temperature coefficients  $\alpha_1$  &  $\alpha_2$  are joined together in series, then the equivalent resistance temperature coefficient is \_\_\_\_\_.
- (1)  $\alpha_1 + \alpha_2$   
 (2)  $\frac{\alpha_1 + \alpha_2}{2}$   
 (3)  $\alpha_1 - \alpha_2$   
 (4) None of the above
- 
2. The change in temperature of body is  $50^\circ\text{C}$ , then the change in temperature on kelvin scale will be :
- (1) 70 K                      (2) 20 K                      (3) 50 K                      (4) 323 K
- 
3. Which of the following factors determine output from wind energy converter ?
- (a) the wind speed  
 (b) the cross-section of wind swept by rotor  
 (c) the intensity of sun light  
 (d) the overall conversion efficiency of the rotor, transmission system and generator
- Select the correct option :
- (1) (a) only                      (2) (a), (b) and (d) only  
 (3) (c) only                      (4) (a), (b) and (c) only
- 
4. Light transmitted by nichol prism is :
- (1) unpolarized                      (2) plane polarized  
 (3) circularly polarized                      (4) elliptically polarized
- 
5. Select the correct statements.
- (a) Resistive force is directly proportional to the first power of velocity  
 (b) Translational motion is the result of a force  
 (c) Each particle of a rigid body has the same linear velocity in translational motion  
 (d) Linear velocities of the particles of the rigid body are not the same during rotational motion around a fixed axis passing through it
- Select the correct option :
- (1) (a) and (b) only                      (2) (a), (b) and (c) only  
 (3) (b), (c) and (d) only                      (4) (a), (b), (c) and (d)
- 

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

P.T.O.

6. If  $T$  and  $\tau$  be the half life and mean life periods of radioactive nuclide, then the ratio of half life to mean life period is \_\_\_\_\_.
- (1)  $\frac{T}{\tau} = 0.396$       (2)  $\frac{T}{\tau} = 0.693$       (3)  $\frac{T}{\tau} = 0.963$       (4)  $\frac{T}{\tau} = 0.936$
- 
7. The current flowing through an electric bulb rated 120 V, 60 W is :
- (1) 2 A      (2) 7.2 A      (3) 0.5 A      (4) 1.5 A
- 
8. Resistivity of 1 cm long copper wire is  $\rho_1$  and 1000 cm long copper wire is  $\rho_2$  having same cross section area. Then :
- (1)  $\rho_1 = \rho_2$       (2)  $\rho_1 > \rho_2$       (3)  $\rho_1 < \rho_2$       (4) None of the above
- 
9. Butanone is a four carbon compound with the functional group :
- (1) Alcohol      (2) Aldehyde  
(3) Carboxylic acid      (4) Ketone
- 
10. Mathematical expression of Faraday's first law of electrolysis is \_\_\_\_\_.
- (1)  $W = Q$ ,  $W = Z \times I \times t$ ,  $W = ZQ$       (2)  $W = Q$ ,  $W = Z \times Q$ ,  $W \propto Q$   
(3)  $W \propto Q$ ,  $W = Q$ ,  $W = Z \times I \times t$       (4)  $W = Z \times I \times t$ ,  $W = Z \times Q$ ,  $W \propto Q$
- 
11. As you go from left to right across a period on the periodic table there is decrease in :
- (1) First ionization energy      (2) Nuclear charge  
(3) Electronegativity      (4) Metallic character
- 
12. Bleaching powder consists of :
- (1) Calcium Carbonate      (2) Calcium Hypochlorite  
(3) Calcium Sulfate      (4) Magnesium Carbonate
- 
13. Following is not allotrope of carbon.
- (1) Diamond      (2) Fullerene      (3) Ferrocene      (4) Graphite
- 

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

- A**
14. In the electrolysis of sodium chloride, molten sodium chloride is kept molten at  $600^{\circ}\text{C}$ , below its melting point of  $808^{\circ}\text{C}$  by addition of :
- (1) Potassium chloride (2) Magnesium chloride  
(3) Calcium chloride (4) Lithium chloride
- 
15. The correct Electronic configuration of Cu and  $\text{Cu}^{+1}$ , respectively are \_\_\_\_\_.
- (1)  $3d^{10}, 4s^0$ ;  $3d^9, 4s^0$  (2)  $3d^9, 4s^1$ ;  $3d^9, 4s^0$   
(3)  $3d^{10}, 4s^1$ ;  $3d^{10}, 4s^0$  (4)  $3d^8, 4s^1$ ;  $3d^{10}, 4s^0$
- 
16. Plaster of Paris consist of the following :
- (1) Calcium Sulfate (2) Magnesium Sulfate  
(3) Calcium Carbonate (4) Magnesium Carbonate
- 
17. Name the following pest which damages Onion and Garlic.
- (1) Black moth (2) Bug (3) Thrips (4) Saw fly
- 
18. Which of the following aerobic bacteria have ability to fix molecular nitrogen ?
- (1) *Derxia and Chromatium* (2) *Derxia and Beijerinckia*  
(3) *Beijerinckia and Chlorobium* (4) *Chromatium and Chlorobium*
- 
19. Pyrethrine and Padom-A are \_\_\_\_\_.
- (1) Synthetic, Organic insecticides (2) Inorganic insecticides  
(3) Natural, Organic insecticides (4) None of the above
- 
20. Who published system of classification in "Botanical Review" in 1980 ?
- (1) John Hutchinson (2) Arman Takhtajan  
(3) Arthur Conquist (4) Robert Thorne
- 
21. Which of the following tree contribute upto 50 kg Nitrogen per hectare per year ?
- (1) *Acacia auriculiformis* (2) *Casuarina equisetifolia*  
(3) *Ficus religiosa* (4) *Azadirachta indica*
- 

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

P.T.O.

22. Name taxonomist who published *Systema Naturae* :
- (1) Bentham and Hooker (2) Carl Linnaeus  
(3) Engler and Prantle (4) Arthur Cronquist
- 
23. *Virachola isocrates* is commonly known as \_\_\_\_\_.
- (1) Lemon butterfly (2) Pomegranate butterfly  
(3) Fruit fly (4) Psylla
- 
24. In poisonous snakes which glands are modified to form poison gland ?
- (1) Sebaceous gland (2) Ceruminous gland  
(3) Salivary gland (4) Endocrine gland
- 
25. Which of the following animals has phylogenetic significance, as it serves a link between reptiles and mammals ?
- (1) Kangaroo (2) Echidna (3) Sorex (4) Rabbit
- 
26. Which phylum is the largest and most successful group of animal kingdom ?
- (1) Arthropods (2) Mollusca (3) Annelida (4) Coelenterata
- 
27. Leptomonad form of *Leishmania* is found in :
- (1) man (2) sand fly (3) tse-tse fly (4) bed bug
- 
28. Match the following.
- |                        |                       |
|------------------------|-----------------------|
| (a) Law of inheritance | (i) T.M. Morgan       |
| (b) m-RNA discovery    | (ii) G.J. Mendel      |
| (c) DNA double strand  | (iii) Jacob and Monod |
| (d) Sex linkage        | (iv) Watson and Crick |
- Answer Options :**
- |     | (a)   | (b)   | (c)  | (d)   |
|-----|-------|-------|------|-------|
| (1) | (i)   | (iii) | (ii) | (iv)  |
| (2) | (ii)  | (iii) | (iv) | (i)   |
| (3) | (iv)  | (ii)  | (i)  | (iii) |
| (4) | (iii) | (i)   | (iv) | (ii)  |

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK



29. Consider the following statements about viruses and select the answer from the order given below :

- (a) Viruses are obligatory parasites
- (b) Viruses are living organisms
- (c) Viruses totally depends upon the host cells
- (d) Viruses have their own enzyme systems

Which of the above statements are true about viruses ?

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

30. In class Pisces which fish is fast swimmer and viviparous ?

- (1) Chimaera
- (2) Rohu
- (3) Scoliodon
- (4) Silver Fish

31. The soil acidity and association of hydrogen and aluminium with soil colloids is mainly influenced by two types of negative charges. These are :

- (a) Permanent and pH dependent
- (b) Residual and Active
- (c) Organic colloids and inorganic colloids

Answer Options :

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

32. "Hidden Hunger" means \_\_\_\_\_.

- (1) Deficiency symptoms are seen when the nutrient is deficient
- (2) Severe yield reduction may occur without appearance of deficiency symptoms
- (3) The nutrient is not deficient but apparently seems to be deficient
- (4) Visual deficiency symptoms are suppressed by other elements

33. Crop logging is a method of \_\_\_\_\_.

- (1) Soil fertility evaluation
- (2) Assessing crop damage
- (3) Plant analysis for assessing requirements of nutrients for crop production
- (4) Testing suitability of fertilizers

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

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34. The soil forming process in which humus and sesquioxides become mobile, leach out from the upper horizons and get deposited into lower horizons, while silica remains accumulated in upper horizon.

- |                   |                  |
|-------------------|------------------|
| (1) Calcification | (2) Laterization |
| (3) Podzolization | (4) Salinization |

35. Highly salt resistant crop :

- |            |                   |
|------------|-------------------|
| (1) Barley | (2) Beans         |
| (3) Wheat  | (4) None of these |

36. Which basic information is necessary to start the Watershed Management Programme ?

- (a) Data on rainfall
- (b) Statistics of population and livestock
- (c) Existing water sources like tank, well etc.
- (d) Topography

**Answer Options :**

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

37. Which of the following are the objectives of all watershed management programmes ?

- (1) To increase infiltration of rainwater into the soil
- (2) To control damage by runoff
- (3) To manage and utilize runoff for useful purposes
- (4) All of the above

38. A terrace has a constant or variable grade along its length and used to convey the excess water at a safe velocity is \_\_\_\_\_.

- |                   |                       |
|-------------------|-----------------------|
| (1) Level terrace | (2) Graded terrace    |
| (3) Bench terrace | (4) None of the above |

39. Contour bunding is suitable for those areas, which receive the annual rainfall upto \_\_\_\_\_.

- |            |             |            |                       |
|------------|-------------|------------|-----------------------|
| (1) 800 mm | (2) 1000 mm | (3) 600 mm | (4) None of the above |
|------------|-------------|------------|-----------------------|

40. Which was the first river Valley Corporation Project in India to take up soil conservation and the relative activities on a statutory basis ?

- |                                |                                |
|--------------------------------|--------------------------------|
| (1) Damodar Valley Corporation | (2) Krishna Valley Corporation |
| (3) Ganga Valley Corporation   | (4) None of the above          |

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

41. Freshwater ecosystem may be :

- |                      |                       |
|----------------------|-----------------------|
| (1) Lotic            | (2) Lentic            |
| (3) (1) and (2) both | (4) None of the above |

42. In an ecosystem, the flow of energy is \_\_\_\_\_.

- |                      |                   |
|----------------------|-------------------|
| (1) Unidirectional   | (2) Bidirectional |
| (3) Multidirectional | (4) Cyclic        |

43. How much percentage of  $P_2O_5$  is present in single super phosphate ?

- |         |         |         |         |
|---------|---------|---------|---------|
| (1) 16% | (2) 48% | (3) 46% | (4) 27% |
|---------|---------|---------|---------|

44. Among the following which statement(s) is/are correct ?

- (a) Concentrated organic manures contain higher percentage of plant nutrients
- (b) Concentrated organic manures are made from raw materials of animal or plant origin
- (c) The common concentrated organic manures are F.Y.M. and compost

Select the correct option :

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

45. Which of the following pest produces dead hearts and white heads ?

- |                    |                            |
|--------------------|----------------------------|
| (1) Leaf folder    | (2) Yellow Rice stem borer |
| (3) Rice case worm | (4) Rice hispa             |

46. Anthrax disease of farm animals is caused by :

- |                         |                   |
|-------------------------|-------------------|
| (1) Bacteria            | (2) Viruses       |
| (3) Protozoan parasites | (4) None of these |

47. The concentration of insecticide required to kill 50% test population experiment of insect is called as \_\_\_\_\_.

- |          |          |         |          |
|----------|----------|---------|----------|
| (1) RL50 | (2) LD50 | (3) I50 | (4) KD50 |
|----------|----------|---------|----------|

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

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48. Among the following, which statement is correct ?

- (a) DDT was first discovered by Othmar Zeidler
- (b) Insecticidal property of DDT was proved by Paul Muller

Answer Options :

- (1) Only (a)
- (2) Only (b)
- (3) Both (a) and (b)
- (4) None of these

49. \_\_\_\_\_ is a complete parasitic weed having twining, golden yellow wiry stems.

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

50. \_\_\_\_\_ contains calcium oxalate crystals are packaged in raphides, arranged in bundles called idioblasts.

- (1) Dumb cane (*Dieffenbachia*)
- (2) Glory lily
- (3) Areca palm
- (4) Alfa-alfa

51. \_\_\_\_\_ is a treatment process that uses micro-organism to degrade hazardous substances into less toxic or non-toxic substances.

- (1) Nitrification
- (2) Salinization
- (3) Bioremediation
- (4) All of the above

52. Which of the following is a secondary pollutant ?

- (1) Carbon monoxide
- (2) Smog
- (3) Carbon dioxide
- (4) Sulphur dioxide

53. Iron pyrites ( $\text{FeS}_2$ ) can have devastating impact on the aquatic environment because their oxidation releases \_\_\_\_\_.

- (1) Sulphuric acid
- (2) Hydrochloric acid
- (3) Nitric acid
- (4) None of the above

54. \_\_\_\_\_ river valley are the cradle of industrialization in Chotanagpur plateau region.

- (1) Bearma and Sonar
- (2) Krishna and Koyna
- (3) Ganga and Hubli
- (4) Damodar and Subernrekha

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55. The thickness of ozone in a column of air from the ground to the top of atmosphere is measured in term of \_\_\_\_\_.

- |                   |                  |
|-------------------|------------------|
| (1) Pascal unit   | (2) Dobson unit  |
| (3) Angstrom unit | (4) Decibel unit |

56. What is the full form of IPCC ?

- (1) Intergovernmental Panel on Climate Change
- (2) International Panel on Climate Change
- (3) Intergovernmental Protocol on Climate Change
- (4) International Panel on Climate Conservation

57. Match the pairs :

Wild animals	Scientific name
(a) Chinkara	(i) <i>Tetracerus quadricornis</i>
(b) Black Buck	(ii) <i>Gazella bennettii</i>
(c) Chowsingha	(iii) <i>Boselaphus tragocamelus</i>
(d) Blue Bull	(iv) <i>Antilope cervicapra</i>

Answer Options :

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

58. The pregnancy diagnosis in Elephants can be made on the basis of following :

- (a) Elevated level of estrogen after 10 weeks
- (b) Prostaglandin level increased at 3 to 8 weeks
- (c) Prolactin rises 200-600 times higher during 4-6 months
- (d) Ultrasonography after 15 days

Answer Options :

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

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59. The digestibility of colostrum increases when it is given at temperature between \_\_\_\_\_.

- |                    |                     |
|--------------------|---------------------|
| (1) 79°F and 82°F  | (2) 89°F and 92°F   |
| (3) 99°F and 102°F | (4) 109°F and 112°F |

60. Match the following :

Breed	Origin (state)
(a) Khariar	(i) Uttar Pradesh
(b) Kherigarh	(ii) Karnataka
(c) Krishna valley	(iii) Tamil Nadu
(d) Kangayam	(iv) Odisha

Answer Options :

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

61. The wood of \_\_\_\_\_ tree species is used in pencil industry.

- |                             |                                 |
|-----------------------------|---------------------------------|
| (1) <i>Adina cardifolia</i> | (2) <i>Abies pindrow</i>        |
| (3) <i>Toona ciliata</i>    | (4) <i>Juniperus virginiana</i> |

62. Drugs are obtained from the \_\_\_\_\_ of the plants.

- |            |                            |
|------------|----------------------------|
| (1) Roots  | (2) Bark                   |
| (3) Leaves | (4) All of the above parts |

63. Which essential oil is having a maximum export ?

- |                 |                   |
|-----------------|-------------------|
| (1) Pepper mint | (2) Japanese mint |
| (3) Berga mint  | (4) Spear mint    |

64. Jute fibre is seperated in pools of stagnant water from the stem by a process of :

- |              |                       |
|--------------|-----------------------|
| (1) Crushing | (2) Calendering       |
| (3) Retting  | (4) None of the above |

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65. Salai gum is the product of \_\_\_\_\_.

- |                                 |                            |
|---------------------------------|----------------------------|
| (1) <i>Boswellia serrata</i>    | (2) <i>Bauhinia retusa</i> |
| (3) <i>Anogeissus latifolia</i> | (4) <i>Sterculia urens</i> |

66. The important species of a fresh water swamp forest is :

- (1) *Avicennia sp.*    (2) *Barringtonia sp.*    (3) *Bruguiera sp.*    (4) *Myristica sp.*

67. Height growth in forest plants takes place rapidly during night or in shade because :

- (a) growing axis is stimulated by low light intensity  
 (b) more nutrition is available during night or in shade

Which of the above is correct ?

- |                      |                         |
|----------------------|-------------------------|
| (1) Only (a)         | (2) Only (b)            |
| (3) Both (a) and (b) | (4) Neither (a) nor (b) |

68. *Shorea robusta* is found in \_\_\_\_\_ forests.

- (1) Tarai                      (2) Siwalik                      (3) Khasi hill                      (4) All the above

69. Miyawaki forest is grown by planting several species of plants in very close spacing. The major interaction that helps form this forest rapidly is \_\_\_\_\_.

- (1) Mutualism                      (2) Parasitism                      (3) Comensalism                      (4) Competition

70. The effect of aspect is more pronounced in Himalayan hill ranges than in hills situated in Southern India because of \_\_\_\_\_ effect.

- (1) Pole                      (2) Elevation                      (3) Wind                      (4) Equator

71. Sahyadri Tiger Reserve comprises of :

- (a) Radhanagari wildlife sanctuary  
 (b) Chandoli National park  
 (c) Koyna wildlife sanctuary

Which of the following options completes the sentence correctly ?

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

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72. India has a treaty with \_\_\_\_\_ country to protect migratory birds.  
(1) China (2) Iran (3) USSR (4) Japan

73. Which of the following statements about Manas national park is/are true ?  
(a) It is situated in Arunachal Pradesh  
(b) It supports good rhino population  
(c) Some rhinos were relocated there in early 2019

**Answer Options :**

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

74. If arranged from oldest to newest, which of the following sequences is correct ?

- (1) Tadoba - Pench - Sanjay Gandhi  
(2) Tadoba - Sanjay Gandhi - Pench  
(3) Sanjay Gandhi - Tadoba - Pench  
(4) Sanjay Gandhi - Pench - Tadoba

75. The Chief Wildlife Warden can grant to any person a permit to enter a sanctuary for which of the following purpose ?

- (a) Photography  
(b) Scientific research  
(c) Tourism

**Answer Options :**

- (1) None of these (2) Only (a) and (b)  
(3) Only (b) (4) All of these

76. The joint forest management can effectively promote \_\_\_\_\_ activities.

- (1) NTFP collection (2) Conservation of medicinal plants  
(3) Eradication of Alien species (4) All the above

77. Which of the following effects of trees on agricultural crops are important in agroforestry ?

- (a) Competition  
(b) Microclimate modification  
(c) Nutrient cycling

**Answer Options :**

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

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78. Agroforestry system where component stay together for some part of life.

- (1) Coincident (2) Concomitant (3) Intermittent (4) Interpolated
- 

79. How many ex-officio members do the JFMC/EDC have ?

- (1) 1 (2) 2 (3) 3 (4) 4
- 

80. Consider following statement :

- (a) Agroforestry system is a specific local example of an Agroforestry practice  
(b) Agroforestry practice is a specific local example of an Agroforestry system

In this context, which of the following option is correct ?

- (1) Both true (2) Only (a) true (3) Only (b) true (4) None true
- 

81. State government can alter the boundaries of a wildlife sanctuary. But this can be done on recommendation of \_\_\_\_\_ according to wildlife (protection) Act, 1972.

- (1) State Board for Wildlife  
(2) National Board for Wildlife  
(3) National Tiger Conservation Authority  
(4) Wildlife Crime Control Bureau
- 

82. Indian Forest Act, 1927 was amended in 2017 to omit the word 'bamboo' from clause(7) of section 2. This amendment changed the definition of \_\_\_\_\_.

- (1) Timber (2) Tree (3) Shrub (4) Palm
- 

83. Who is the Ex-officio Director of the Wildlife Crime Control Bureau ?

- (1) Director of Wildlife Preservation  
(2) Inspector General of Police  
(3) Inspector General of Forests  
(4) Director General of Forests
- 

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84. Snake venom is required for manufacture of life-saving Antivenom. In this regard, which of the following statements are correct as per wildlife (protection) Act, 1972 ?

- (a) Only government agency can collect snake venom.
- (b) Anyone interested in collecting snake venom can apply for licence.
- (c) Chief Minister issues the licence.

**Answer Options :**

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

85. The first attempt for asserting state monopoly right over forest was made through an Indian Forest Act of.

- (1) 1857
- (2) 1865
- (3) 1878
- (4) 1827

86. The Centre for International Forestry Research (CIFOR) is located at :

- (1) Bogor, Indonesia
- (2) Yokohama, Japan
- (3) New Delhi, India
- (4) Rome, Italy

87. International Union for Conservation of Nature (IUCN) has the priority areas of :

- (a) Work-biodiversity and climate change
- (b) Sustainable energy
- (c) Human well-being and green economy
- (d) To defeat hunger and poverty

**Answer Options :**

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

88. The First World Climate Conference was held at Geneva, Switzerland on :

- (1) 12 - 23 Feb. 1979
- (2) 14 Aug. - 4 Sept. 2009
- (3) 29 Oct. - 7 Nov. 1990
- (4) 1-10 Jan. 1982

89. Match the pair :

- |   |                 |
|---|-----------------|
| (a) Institute of Wood Science and Technology (IWST) | (i) Jabalpur    |
| (b) Tropical Forest Research Institute (TFRI)       | (ii) Ranchi     |
| (c) Arid Forest Research Institute (AFRI)           | (iii) Bengaluru |
| (d) Institute of Forest Productivity (IFP)          | (iv) Jodhpur    |

**Answer options :**

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

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90. Which one of the following is not the autonomous organization of Ministry of Environment and Forest, New Delhi ?

- (1) Govind Ballabh Pant Institute of Himalayan Environment and Development, Almora.
- (2) Indian Institute of Forest Management, Bhopal.
- (3) Wildlife Institute of India, Dehradun.
- (4) Indira Gandhi National Forest Academy, Dehradun.

91. Match the pairs :

Remote Sensing satellite	Country of Origin
(a) Resource sat	(i) India
(b) SPOT	(ii) France
(c) Radarsat	(iii) Canada
(d) IKONOS	(iv) U.S.A.

Answer options :

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

92. The preferable topographical map for higher Resolution Satellite image interpretation has a scale of :

- |                                 |                                |
|---------------------------------|--------------------------------|
| (1) 1 : 50,000 to 1 : 11,50,000 | (2) 1 : 50,000 to 1 : 2,00,000 |
| (3) 1 : 50,000 to 1 : 2,50,000  | (4) 1 : 50,000 to 1 : 3,00,000 |

93. Which of the following statements are correct ?

- (a) Concept of Biodiversity hotspots was given by E.O. Wilson.
- (b) Biodiversity hotspots have high endemism of plant species.
- (c) All Biodiversity hotspots are located in tropical region.

Answer Options :

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

कच्चा कामासाठी जागा / SPACE FOR ROUGH WORK

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94. Anthropogenic threats leading to extinction of species and consequent loss of biodiversity is/are :

- (a) Habitat loss and fragmentation
- (b) Introduction of non-native species
- (c) Disturbance and pollution
- (d) Over exploitation of natural resources

**Answer Options :**

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

95. The \_\_\_\_\_ diversity is the measure of rate of extent of change in species along a gradient from one habitat to another.

- (1) Alpha                      (2) Beta                      (3) Gamma                      (4) Theta

96. Which of the following were implemented during the decade 2011-20 ?

- (a) United Nations Decade on Biodiversity
- (b) Aichi Biodiversity Targets

**Answer Options :**

- (1) Only (a)                      (2) Only (b)
- (3) Both (a) and (b)              (4) Neither (a) nor (b)

97. Primitive varieties which have evolved over centuries through both natural and artificial selection and cultivated by farmers, are referred as \_\_\_\_\_.

- (1) Modern cultivars              (2) Landraces
- (3) Wild species                      (4) Obsolete varieties

98. Match the following :

- |                          |                |
|--------------------------|----------------|
| (a) Indigenous people    | (i) Vanyajati  |
| (b) Primitive people     | (ii) Vanvasi   |
| (c) Inhabitant of forest | (iii) Adimjati |
| (d) Caste of forest      | (iv) Adivasi   |

**Answer options :**

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

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99. Heterosis can be fixed through :

- (a) Vegetative propagation
- (b) Apomixis
- (c) Male sterility
- (d) Balanced lethal system

**Answer Options :**

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

100. Match the following pairs :

- |  |                          |
|--|--------------------------|
| (a) Father of plant tissue culture                         | (i) Guha and Maheshwari  |
| (b) Development of plant tissue culture media              | (ii) Gottlieb Haberlandt |
| (c) Production of first haploid embryos from pollen grains | (iii) Muier et al        |
| (d) First plant from single cell                           | (iv) Murashige and Skoog |

**Answer options :**

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

- o o o -

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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 आयोगाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वतःबरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. मात्र परीक्षा कक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षककडे 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 ● ④

अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तर-क्रमांक हा तुम्हाला स्वतंत्ररीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायांकित करून दाखवावा. ह्याकरिता फक्त काळ्या शाईचे बॉल्पेन वापरणे, पेन्सिल वा शाईचे पेन वापरू नये.

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