

Total No. of Printed Pages: 06

No. of Questions : 50

**Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar**  
**PET 2024 (9008) Doctor of Philosophy( (Botany)**

(To be filled by the Candidate)

Candidate Seat Number  
(As per Admit card)

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OMR Sheet Number

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Invigilator's signature with Date

Candidate's Seat No. in Words : \_\_\_\_\_

Name of the Center : \_\_\_\_\_

Paper Code &amp; Name of Examination : 9008 - Doctor of Philosophy( (Botany)

Date: 03/10/2024

PET 2024 - EXAMINATION

Time: One Hours

Total Marks: 100

**Important Instructions for the candidate**

- Write your seat number and OMR Sheet number on the question paper in the earmarked space
- This question paper carries Fifty (50) Multiple-choice type questions and each question carries 2 Marks
- At the commencement of examination, the question paper will be given to the student.
- Each question has four alternative responses marked (A) (B) (C) and (D). You have to darken the circle as indicated below on the correct response against each question  
Example: where (C) is correct answer



- Your responses to the answer are to be indicated in the OMR Sheet. If you mark at any place other than in the circle in the OMR Sheet it will not be evaluated.
- Rough work is to be done at the end of this question paper.
- You have to return OMR answer sheet and question paper to the invigilator at the end of examination compulsorily and must not carry with you outside the examination hall.
- Use only Black / Blue ball point pen
- Use of any type of calculator or log table etc. is prohibited.
- There is no negative marking for incorrect answers

**विद्यार्थ्यांसाठी महत्त्वाच्या सूचना**

- परीक्षार्थींनी आपला आसन क्रमांक या पृष्ठावरील वरच्या कोपऱ्यात तसेच आपणास दिलेल्या उत्तर पत्रिकेचा क्रमांक त्याखाली लिहावा.
- या प्रश्नपत्रिकेतील सर्व प्रश्न सोडवणे अनिवार्य आहे.
- परीक्षा सुरु झाल्यावर विद्यार्थ्यांला प्रश्नपत्रिका दिली जाईल.
- प्रत्येक प्रश्नासाठी (A) (B) (C) (D) अशी चार विकल्प उत्तरे दिली आहेत, त्यातील योग्य उत्तराचा रकाना खाली दर्शविल्याप्रमाणे ठळकपणे काळा निळा करावा.  
उदा: जर (C) हे उत्तर योग्य असेल तर



- या प्रश्नपत्रिकेतील प्रश्नांची उत्तरे ओएमआर उत्तर पत्रिकेतच दर्शवावीत इतर ठिकाणी लिहिलेली उत्तरे तपासली जाणार नाहीत.
- प्रश्नपत्रिकाच्या शेवटी कोऱ्या जागेवरच कच्चे काम करावे
- परीक्षा संपल्यानंतर विद्यार्थ्यांनी मूळ ओ. एम. आर उत्तरपत्रिका पर्यवेक्षकाकडे परत करणे आवश्यक आहे तथापि प्रश्नपत्रिका व ओ. एम. आर. उत्तरपत्रिका आपल्याबरोबर नेण्यास विद्यार्थ्यांला परवानगी नाही.
- फक्त काळ्या किंवा निळ्या बॉलपेनचाच वापर करावा
- कॅल्क्युलेटर किंवा लॉग टेबल वापरण्यास परवानगी नाही
- चुकीच्या उत्तरासाठी गुण कपात केली जाणार नाही

- | Q. No. | Question  |
|--------|---|
| 1.     | Research is based upon<br>(A) Rating scale<br>(C) General principles<br>(B) Experiments<br>(D) Scientific methods   |
| 2.     | A researcher selects a probability sample of 100 out of a total population is called<br>(A) A cluster sample<br>(B) A random sample<br>(C) A systematic sample<br>(D) An Individual sampling among the population   |
| 3.     | An assumption, an idea that is proposed for the sake of argument so that it can be tested to see if it might be true is called as<br>(A) Inference<br>(C) Hypothesis<br>(B) Conclusion<br>(D) Thesis  |
| 4.     | Wandering in search of any special thing is<br>(A) Excursion<br>(C) Expedition<br>(B) Exploration<br>(D) Exhibition   |
| 5.     | The data which is descriptive and depicts the characters is<br>(A) Analytical data<br>(C) Quantitative data<br>(B) Informative data<br>(D) Qualitative data   |
| 6.     | Field study is related to<br>(A) Laboratory situations<br>(C) Real life situations<br>(B) Experimental situations<br>(D) Performing situations  |
| 7.     | Research conducted to find the solution of an immediate problem is called<br>(A) Action research<br>(C) Survey research<br>(B) Quick research<br>(D) Fundamental research   |
| 8.     | A handwritten or typewritten composition sent for publication is called<br>(A) Draft<br>(C) Hypothesis<br>(B) Thesis<br>(D) Manuscript  |
| 9.     | How an Impact Factor (IF) is calculated<br>(A) Number of citations in a year divided by the number of articles published in that year<br>(B) Number of citations in a year divided by the number of articles published before two years<br>(C) Number of copies distributed in a year divided by the number of articles published in that year<br>(D) Number of articles published in a year divided by the number of copies distributed in that year |
| 10.    | The Head Quarter of BSI is located at<br>(A) New Delhi<br>(C) Dehradun<br>(B) Chennai<br>(D) Kolkata  |
| 11.    | A Statistical hypothesis that proposes no statistical significance exists in a set of given observations is<br>(A) Thesis<br>(C) Null Hypothesis<br>(B) Hypothesis<br>(D) Un significant statistics   |

12. Resolving power of a compound Microscope is  
 (A) 20 microns (B) 200 microns  
 (C) 200 nano meters (D) 200 Anstroms
13. A stain gives yellow green fluorescent colour to DNA is  
 (A) Acridine Orange R (B) Aniline Green  
 (C) Fluorescent Cotton Green (D) Fluoroglucinol
14. The wavelength of UV radiation (UVR) lies in the range of  
 (A) 100 – 400 nm (B) 100 – 200 nm  
 (C) 200 – 700 nm (D) 200 – 700 microns
15. A separation method using the difference of charge states between the mobile phase and analytes from the stationary phase in the column is  
 (A) TLC (B) IEX  
 (C) HPLC (D) HPTLC
16. An instrument used to determine the sedimentation velocity, shape and mass of macromolecules, cell organelles, biomolecules like DNA, RNA and lipoproteins is  
 (A) Centrifuge (B) Cryo Centrifuge  
 (C) Cyclometer (D) Centripetalor
17. A mechanical tissue composed of small cells with angular thickening is  
 (A) Parenchyma (B) Sclerenchyma  
 (C) Collenchyma (D) Chlorenchyma
18. Young flower buds were collected early in the morning preserved for the study of  
 (A) Meiosis (B) Mitosis  
 (C) Phytochemistry (D) Protoplast fusion
19. Standard size of Herbarium sheet is  
 (A) 18 X 24 inch (B) 29 X 42 cm  
 (C) 35 X 42 cm (D) 35 X 42 inch
20. Fungi can be cultured on which medium?  
 (A) M S Agar (B) PDA  
 (C) TSA (D) LB
21. The agency which Regulates the Biological Diversity Act 2002  
 (A) BDA (B) BSI  
 (C) NBA (D) CBZ
22. Chief of the Forest Department of a state is  
 (A) PCCF (B) CCF  
 (C) RFO (D) DFO
23. The full form of http is  
 (A) Hypertext transfer protocol (B) Hyphen transfer of the text protocol  
 (C) Hyperactive transfer of the text protolog (D) High speed text transfer programme
24. A new word page/ file can be opened by  
 (A) Ctrl + W (B) Ctrl + P  
 (C) Ctrl + F (D) Ctrl + N

25. Internet is  
 (A) International Network (B) International Network  
 (C) Inter satellite Communication Network (D) Interconnected Network
26. Which of the following statements is true about the chromatin composition?  
 (A) DNA (B) DNA, RNA  
 (C) DNA, Proteins (D) DNA, RNA and Proteins
27. The main function of Nucleolus is  
 (A) Protein synthesis (B) DNA synthesis  
 (C) Karyokinesis (D) rRNA synthesis
28. What is a genome?  
 (A) Diploid set of Chromosomes  
 (B) The number of chromosomes found in Zygote  
 (C) The total chromosomes in the body of the individual  
 (D) Sum of a haploid set of chromosomes and extrachromosomal material of the cell
29. Plasma membrane is made up of  
 (A) Lipids, proteins and cellulose  
 (B) Bimolecular lipid layer surrounded by protein layers  
 (C) Lipid layers surrounded by Proteins  
 (D) Lipid layers surrounded by fatty acids
30. The phenomenon of one gene affecting the physical expression of other gene which occurs between genes of polygenic traits is called  
 (A) Epistasis (B) Hypostasis  
 (C) Mutation (D) Point mutation
31. In *Neurospora crassa* the genome contains how many chromosomes  
 (A) 7 (B) 5  
 (C) 6 (D) 9
32. Heterocyst is found in  
 (A) *Chlamydomonas* (B) *Nostoc*  
 (C) *Spirogyra* (D) *Hydrodictyon*
33. Globule and Nucule are found in  
 (A) *Spirogyra* (B) *Anabaena*  
 (C) *Nostoc* (D) *Chara*
34. Imperfect Fungi are  
 (A) Ascomycetes (B) Basidiomycetes  
 (C) Deuteromycetes (D) Mastigomycetes
35. The fungus in which the thallus is differentiated into vegetative structures and reproductive structures is called as  
 (A) Eucarpic (B) Holocarpic  
 (C) Protocarpic (D) Pseudocarpic
36. In Gram positive Bacteria the cell wall contains  
 (A) Cellulosic acid (B) Teichoic acid  
 (C) Humic acid (D) Vanillic acid

37. Angular leaf spot of Cotton is caused by  
 (A) *Alternaria solani* (B) *Cercospora arachidicola*  
 (C) *Xanthomonas citri* (D) *Xanthomonas citri* pv *malvacearum*
38. Little leaf of Brinjal is caused by  
 (A) Bacteria (B) Virus  
 (C) Fungi (D) Phytoplasma
39. Which Virus is called as Grand daddy of Viruses  
 (A) TMV (B) PMV  
 (C) BMV (D) HIV
40. Assimilatory zone consists free filaments in  
 (A) *Marchantia* (B) *Riccia*  
 (C) *Anthoceros* (D) *Polytrichum*
41. Trabeculae present in  
 (A) *Psilotum* (B) *Rhynea*  
 (C) *Lycopodium* (D) *Selaginella*
42. Sporocarp is present in  
 (A) *Psilotum* (B) *Marsellia*  
 (C) *Lycopodium* (D) *Selaginella*
43. Cupule is present in  
 (A) *Psilotum* (B) *Rhynea*  
 (C) *Caytonia* (D) *Cycadeoidea*
44. APG – IV system of classification was proposed in which year?  
 (A) 1916 (B) 2016  
 (C) 1888 (D) 1914
45. Anthophore is the stalk present between  
 (A) Androecium and Gynoecium (B) Androecium and Corolla  
 (C) Calyx and Corolla (D) Calyx and Bract
46. Which one is aromatic compound  
 (A) Anthocyanin (B) Phytol  
 (C) Betacyanin (D) Geraniol
47. Companion cells are absent in  
 (A) Bryophyta, Pteridophyta and Gymnosperms (B) Pteridophyta and Gymnosperms  
 (C) Gymnosperms (D) Angiosperms
48. ETS is present in  
 (A) Nucleus (B) Nucleolus  
 (C) Chloroplast (D) Mitochondria
49. Biosphere Reserves are the examples of  
 (A) In-situ conservation (B) Ex-situ Conservation  
 (C) Ecosystem diversity (D) Ecological adaptation

**50.** Japanese databank of DNA sequences is

- (A) JDBD
- (C) DDDS

- (B) DDBJ
- (D) JPDB

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