

Seat No.	
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**M.Phil./Ph.D. Entrance Examination, August - 2018****BOTANY****Research Methodology****Day and Date : Wednesday, 08 - 08 - 2018****Total Marks : 100****Time : 4.00 p.m. to 6.00 p.m.**

- Instructions :**
- 1) All questions are compulsory.
  - 2) Each question carries 2 marks.
  - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
  - 4) Use black ball point pen only for marking the circle. Do not make any stray mark on the OMR Answer Sheet.
  - 5) Follow the instructions given on OMR Sheet.
  - 6) Rough work shall be done on the sheet provided at the end of question paper.
  - 7) Only non programmable calculators are allowed.

- 1) Basic research conducted for the \_\_\_\_\_.  
A) immediate commercial potential  
B) enhancement of knowledge  
C) invention  
D) practical value
- 2) Applied research is designed to solve \_\_\_\_\_ problems.  
A) practical  
B) social  
C) real life  
D) all the above
- 3) It is necessary to \_\_\_\_\_ in defining the research problem.  
A) understanding the problem thoroughly  
B) outline the problem  
C) do reference work  
D) bring out applications

***P.T.O.***







- 27) Who gave the term Phylum?  
A) Cuvier  
B) Haeckel  
C) Theophrastus  
D) Linnaeus
- 28) RNA processing is \_\_\_\_\_.  
A) the same as transcription  
B) the rejection of old, worn-out RNA  
C) an event that occurs after RNA is transcribed  
D) both B and C, but not A
- 29) If the sequence of bases in DNA is TAGC, then the sequence of bases in RNA will be \_\_\_\_\_.  
A) ATCG  
B) TACG  
C) CGAT  
D) AUCG
- 30) \_\_\_\_\_ is used in the industrial production of citric acid.  
A) *Candida sp.*  
B) *Aspergillus sp.*  
C) *Streptococcus sp.*  
D) *Acetobacter sp.*
- 31) The endosperm is formed \_\_\_\_\_ in gymnosperms.  
A) Before fertilization  
B) After fertilization  
C) During fertilization  
D) Along with embryo formation
- 32) Oxalic acid helps to maintain the low pH of the \_\_\_\_\_ by acting as buffers.  
A) chloroplast  
B) nucleus  
C) vacuole  
D) mitochondrion
- 33) \_\_\_\_\_ is also called vitamin C.  
A) oxalic acid  
B) malic acid  
C) ascorbic acid  
D) hydrochloric acid
- 34) \_\_\_\_\_ is having seventy steles.  
A) *Medullosa heterostelica*  
B) *Medullosa stellata*  
C) *Medullosa endocentriaca*  
D) *Medullosa thompsoni*



- 43) Alcohol is a product of \_\_\_\_\_.  
A) Aerobic respiration                      B) Photosynthesis  
C) Anaerobic respiration                    D) Light reaction
- 44) The shikimic acid pathway converts carbohydrate precursors to \_\_\_\_\_.  
A) aliphatic amino acids                    B) aromatic amino acids  
C) vitamins                                    D) proteins
- 45) \_\_\_\_\_ is the precursor for condensed tannis.  
A) phenyl alanine                            B) tyrosine  
C) glycine                                      D) methionine
- 46) Horseshoe shaped antheridiophore is observed in \_\_\_\_\_.  
A) *Plagiochasama*                            B) *Targionia*  
C) *Asterella*                                    D) *Marchantia*
- 47) Stylar canals are present in \_\_\_\_\_.  
A) Hollow style                                B) Solid style  
C) both A & B                                 D) None of the above
- 48) During processing several unusual bases are produced on large scale in \_\_\_\_\_.  
A) mRNA  
B) rRNA  
C) tRNA  
D) all the above
- 49) The development of sporangium in *Pteris* is \_\_\_\_\_.  
A) Leptosporangiate                            B) Eusporangiate  
C) Protoleptosporangiate                    D) All the above
- 50) \_\_\_\_\_ act as a metabolic channel to transfer glucose taken from sucrose to UDP-glucose.  
A) Sucrose synthase                            B) Fructose synthase  
C) Triose synthase                              D) Glucose synthase



**Rough Work**