

VIDYASAGAR UNIVERSITY
MIDNAPORE

COMMON ENTRANCE TEST FOR PG ADMISSION, 2019

Question Booklet No. **1815190**

Full Marks : 200

Subject: **BOTANY**

Question Booklet Series: **B**

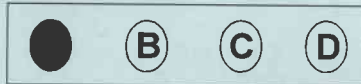
Subject Code No.: **18**

Answer all the questions. Each question has the same weightage.

Read the following instructions carefully before you start answering.

INSTRUCTIONS

- The question Booklet is printed in four Series e.g. (A), (B), (C) and (D). The candidate has to indicate the Series of the question booklet in the space provided in the OMR Answer Sheet . For example, if the candidate gets Series (A) booklet, he / she has to indicate on the front side of the OMR Answer Sheet with Black ink ball point pen only as indicated below:



- There are 50 questions inside this question booklet. Immediately after you have been instructed to open this question booklet, ensure that any page / question is not missing / not printed / torn /repeated. In case you find any defect anywhere in the question booklet, immediately get it replaced by the Invigilator.
- Each question carries 4 marks. 1(one) mark will be deducted for each wrong answer(negative marking).
- Write your Form No and put signature in the space provided.
- Before answering, write down the necessary information on the OMR Answer Sheet as per your Application Form and Admit Card in the specific space provided.
- With each question you will find 4 possible answers marked by the letters A, B, C & D. Read each question carefully and find out which answer, according to you, is correct / most appropriate / best. Indicate your answer by darkening the appropriate circle completely in the OMR Answer Sheet corresponding to the question. For marking answers, use black ink ball pen only. If 'B' is the correct answer in a case, mark as below:



- Do not fold or make any stray marks on the OMR Answer Sheet.
- You can use the blank space of the last page for rough work. Do not tear it off from the Question Booklet.
- After the examination has been over, you must submit OMR Answer Sheet to the Invigilator.
- OMR Answer Sheet is designed for computer evaluation. If you do not follow the instructions given above and shown in the OMR Answer Sheet, it may make evaluation by computer difficult. Any resultant loss to the candidate on the above account shall be of the candidate only.
- No candidate shall be allowed to use Mobile phone. Log tables or Calculator of any description in the examination hall / room.

1. The ratio between regional and local species diversity is measured as –
 (A) Alpha diversity (B) Beta diversity (C) Gamma diversity (D) Delta diversity
2. In Kranz anatomy, the bundle sheath cells have –
 (A) Thin walls, many intercellular spaces and no chloroplasts
 (B) Thick walls, no intercellular spaces and several chloroplasts
 (C) Thick walls, many intercellular spaces and few chloroplasts
 (D) Thin walls, no intercellular spaces and many chloroplasts
3. The end product of glycolysis in absence of O_2 is-
 (A) Water (B) Pyruvate (C) Lactate (D) Carbondioxide
4. Hydrolysis of lactose yields
 (A) Galactose and fructose (B) Galactose and glucose
 (C) Mannose and fructose (D) Anabinose and glucose
5. Which one of the following is resistant to enzyme action?
 (A) Pollen exine (B) Wood fibre (C) Cuticle (D) Cork
6. *Raphanobrassica* is an example of
 (A) Autotetraploid (B) Trisomic (C) Hexaploid (D) Allotetraploid
7. Both heterospory and circinate ptyxis occur in -
 (A) *Blechnum* (B) *Lycopodium* (C) *Cycas* (D) *Dryopteris*
8. International Rice Research Institute (IRRI) is situated in
 (A) Manila, Philippines (B) Pusa, India
 (C) Beijing, China (D) Kualalampur, Malayasia
9. The most widely used chemical for protoplast fusion, as fusogen is
 (A) Poly ethylene glycol (PEG) (B) Manitol
 (C) Sorbitol (D) Mannol
10. Source of Ergotamine alkaloid is –
 (A) *Bauhinia purpurea* (B) *Tephrosia purpurea*
 (C) *Claviceps purpurea* (D) *Butea monosperma*
11. Which of the following acids is a derivative of carotinoids -
 (A) Abscisic acid (B) Gibberellic acid
 (C) Indole 3-acetic acid (D) Indole butyric acid
12. Pond ecosystem shows –
 (A) Inverted pyramid of number (B) Inverted pyramid of biomass
 (C) Upright pyramid of biomass (D) Inverted pyramid of energy
13. Which one of the following amino acid has a single genetic code?
 (A) Valine (B) Alanine (C) Tryptophan (D) Serine
14. During photorespiration, the O_2 consuming reactions occur in –
 (A) Grana of chloroplasts and peroxysomes
 (B) Stroma of chloroplasts
 (C) Stroma of chloroplasts and peroxysomes
 (D) Stroma of chloroplasts and mitochondria
15. Which of the following is not a restriction endonuclease?
 (A) Eco R1 (B) DNA ligase (C) Bam H1 (D) Hind III

16. The causal organism of early blight of potato is -
 (A) *Synchytrium endobioticum* (B) *Phytophthora infestans*
 (C) *Ustilago nuda* (D) *Alterneria solani*
17. When two or more authors publish a new species or propose a new name, their names are linked using the epithet -
 (A) in (B) ex (C) et (D) emend
18. Cyclic photophosphorylation results in the formation of -
 (A) ATP, NADPH, O₂ (B) NADPH
 (C) ATP (D) ATP, NADPH
19. The first earth summit was held at
 (A) Nairobi, Kenya (B) Stockholm, Sweden
 (C) Reo de Janeiro, Brazil (D) Johannesburg, South Africa
20. The plant group dominated during Jurassic period is
 (A) Coniferales (B) Cycadeoidales (C) Ginkgoales (D) Gnetales
21. Which one is a non-ligulate pteridophyte?
 (A) *Selaginella* (B) *Isoetes* (C) *Lepididendron* (D) *Lycopodium*
22. Internal tissue system is best preserved in -
 (A) Compression-impression fossil (B) Mould-cast fossil
 (C) Petrified fossil (D) Mummified fossil
23. A species in tropical rain forest which acts as a key-stone species is -
 (A) *Shorea* sp. (B) *Tectona* sp. (C) *Ficus* sp. (D) *Dalbergia* sp.
24. Redness of red sea is due to
 (A) Red colour present in the sea water (B) *Trichodesmium erythrium*
 (C) Red algae or *Batrachospermum* (D) None of these
25. Which one yields oil from seeds and orange dye from petals?
 (A) *Helianthus annuus* (B) *Calendula officinalis*
 (C) *Carthamus tinctorius* (D) *Brassica nigra*
26. Which stage of *Puccinia* is found on its alternative host?
 (A) Teleutospore (B) Pycnidiospore (C) Uredospore (D) Basidiospore
27. Which of the following is a second messenger?
 (A) Inositol 1,4,5-triphosphate (B) Diacyl glycerol
 (C) Phospholipase C (D) Both A and B
28. The pectin digesting microbe utilized in flax/jute retting is -
 (A) *Clostridium felsineum* (B) *Mucor humilis*
 (C) *Bacillus megatherium* (D) *Aspergillus niger*
29. Which one of the following algae is a source of iodine?
 (A) *Polysiphonia* (B) *Laminaria* (C) *Nostoc* (D) Diatoms
30. Taq polymerase is used in PCR because of its
 (A) Low thermal stability (B) High fidelity
 (C) High speed (D) High thermal stability

31. The dried flower buds used as spices in –
 (A) Cardamom (B) Clove (C) Saffron (D) Sinnamon
32. Climber of palm family (Arecaceae) is –
 (A) *Gloriosa superba* (B) *Quisqualis indica*
 (C) *Calamus rotang* (D) *Coccinia grandis*
33. Sea-lettuce is the common name for
 (A) *Laminaria* (B) *Sargassum* (C) *Batrachospermum* (D) *Ulva*
34. In Pea, the type of placentation is –
 (A) Axile (B) Marginal (C) Basal (D) Free central
35. In germinating seeds, fatty acids are degraded exclusively in
 (A) Peroxisomes (B) Mitochondria (C) Glyoxysomes (D) Thylakoids
36. Which of the following is an example of DNA containing plant virus?
 (A) Tobacco mosaic virus (B) Potato mosaic virus
 (C) Cauliflower mosaic virus (D) Tomato mosaic virus
37. Morphine is obtained from –
 (A) *Aconitum heterophyllum* (B) *Papaver somniferum*
 (C) *Rauwolfia serpentina* (D) *Cinchona officinalis*
38. Physiologically active form of Phytochrome is -
 (A) P730/Fr (B) P660/Pr (C) P700 (D) P680
39. Raphides are the crystals of:
 (A) Calcium oxalate (B) Calcium sulphate
 (C) Calcium phosphate (D) Calcium carbonate
40. The age of early vascular plant is
 (A) Ordovician (B) Siluro-Devonian (C) Carboniferous (D) Permian
41. Double fertilization was discovered by
 (A) Hofmeister (B) Nawaschin (C) Moore (D) McClintock
42. Air pores are absent within the thallus of –
 (A) *Marchantia* (B) *Conocephalum* (C) *Dumortiera* (D) *Riccia*
43. Most of the antibiotics have no effect on viruses as -
 (A) They kill all bacteria which form host of viruses
 (B) Viruses have no metabolism of their own
 (C) Viruses form endospores
 (D) Viruses are too small in size
44. An important monocot member of mangrove vegetation –
 (A) *Rhizophora mucronata* (B) *Sonneratia apetala*
 (C) *Avicennia marina* (D) *Nypa fruticans*
45. *Azotobacter* and *Beijerinckia* are the examples of
 (A) Symbiotic nitrogen-fixers (B) Non-symbiotic nitrogen-fixers
 (C) Ammonifying bacteria (D) Disease causing bacteria
46. The centre of origin of potato is –
 (A) India (B) Africa (C) China (D) South America

47. Edible part of litchi is –
(A) Fleshy thalamus (B) Fleshy aril (C) Mesocar (D) Pericarp
48. Two bio-diversity hot spots of India are –
(A) Eastern Himalayas and Western Ghats
(B) Western Himalayas and Eastern Ghats
(C) Eastern Himalayas and Eastern Ghats
(D) Western Himalayas and Western Ghats
49. Boron in green plants assists in –
(A) Activation in enzyme (B) Acting as enzyme co-factor
(C) Photosynthesis (D) Sugar transport
50. DMSO (Dimethyl sulfoxide) is used as
(A) Gelling agent (B) Alkylating agent (C) Cryoprotectant (D) Chelating agent