

**COMMON P.G. ENTRANCE TEST-2022 (CPET-2022)**

Subject Code : **71**

Test Booklet No.:

Entrance Subject : **Wildlife and Biodiversity Conservation**

Hall Ticket No.:

**TEST BOOKLET**

Time Allowed : **90 Minutes**

Full Marks : **70**

**INSTRUCTIONS TO CANDIDATES**

1. **Please do not open this Question Booklet until asked to do so.**
2. Check the completeness of the Question Booklet immediately after opening.
3. Enter your **Hall Ticket No.** on the Test Booklet in the box provided alongside. **Do not** write anything else on the Test Booklet.
4. Fill up & darken Hall Ticket No. & Test Booklet No. in the OMR Answer Sheet as well as fill up Test Booklet Serial No. & OMR Answer Sheet Serial No. in the Attendance Sheet carefully. Wrongly filled up OMR Answer Sheets are liable for rejection.
5. Each question has four answer options marked (A), (B), (C) & (D).
6. Answers are to be marked on the Answer Sheet, which is provided separately.
7. Choose the most appropriate answer option and darken the oval completely, corresponding to (A), (B), (C) or (D) against the relevant question number.
8. Use only **Blue/Black Ball Point Pen** to darken the oval for answering.
9. Please do not darken more than one oval against any question, as scanner will read such markings as wrong answer.
10. **Each question carries equal marks. There will be no negative marking for wrong answer.**
11. **Electronic items such as calculator, mobile, etc., are not permitted inside the examination hall.**
12. Don't leave the examination hall until the test is over and permitted by the invigilator.
13. **The candidate is required to handover the original OMR sheet to the invigilator and take the question booklet along with the candidate's copy of OMR sheet after completion of the test.**
14. Sheet for rough work is appended in the Test Booklet at the end.

1. The sulfur atom of cysteine is involved in the formation of
  - (A) Sulfide group
  - (B) Sulfhydryl group
  - (C) Sulfite group
  - (D) Sulphates
  
2. In eukaryotic cells, DNA replication takes place in
  - I. the nucleus
  - II. the cytoplasm
  - III. the mitochondria
  - (A) I only
  - (B) II only
  - (C) I and II only
  - (D) I and III only
  
3. Which of the following tissue types is involved with communication using electrical energy?
  - (A) Epithelial
  - (B) Connective
  - (C) Muscular
  - (D) Nervous
  
4. Plants that grow in saline water are called
  - (A) Halophytes
  - (B) Hydrophytes
  - (C) Mesophytes
  - (D) Thallophytes
  
5. The Most abundant tissues of our body are
  - (A) Muscular
  - (B) Connective
  - (C) Epithelial
  - (D) Nervous

6. In Typhoid which part of the body is affected?
- (A) Heart
  - (B) Throat
  - (C) Intestine
  - (D) Lungs
7. Eugenics is the study of
- (A) Altering human beings by changing their genetic components by selective mating
  - (B) People of European origin
  - (C) Different races of mankind
  - (D) Genetic of plants
8. Red Data Book Provides data on
- (A) Red Flower plants
  - (B) Red colored fishes
  - (C) Lists of plants and animals
  - (D) Endangered plants and animals
9. The order of basic processes involved in succession is
- (A) Nudation->Invasion-> competition and co action->reaction->stabilization
  - (B) Nudation->stabilization-> competition and co action->Invasion->reaction
  - (C) Invasion-> Nudation->competition and co action->Reaction->stabilization
  - (D) Invasion -> stabilization -> competition and co action -> Reaction -> nudation
10. Endemic species are
- (A) rare species
  - (B) species localized in a specific region
  - (C) cosmopolitan in distribution
  - (D) critically endangered species

11. Ex situ conservation includes
  - (A) Zoo
  - (B) Botanic garden
  - (C) Germplasm bank
  - (D) all of the above
12. Algal bloom results in
  - (A) Global warming
  - (B) Salination
  - (C) Eutrophication
  - (D) Biomagnification
13. Organisms having the potential for interbreeding and producing fertile offspring is called
  - (A) Class
  - (B) Order
  - (C) Genus
  - (D) Species
14. Ecological niche of an organism represents
  - (A) The resource it utilizes
  - (B) Functional role in the ecological system
  - (C) The range of conditions that it can tolerate
  - (D) all of these
15. What is the most important factor for the success of animal population?
  - (A) natality
  - (B) adaptability
  - (C) unlimited food
  - (D) inter species activity

16. Human population growth curve is a:
- (A) S shaped curve
  - (B) parabola curve
  - (C) J shaped curve
  - (D) zig zag curve
17. The tubular structures of the kidney are called
- (A) Bowman's capsule
  - (B) Nephrons
  - (C) Malpighian tubules
  - (D) Nephrons
18. Digestive products of fats are
- (A) Neutral fats
  - (B) Triglycerids
  - (C) Chylomicrons
  - (D) Fatty acids and glycerols
19. Pyorrhoea is a disease of the
- (A) Nose
  - (B) Gums
  - (C) Heart
  - (D) Lungs
20. Most of the red, blue and purple colors of plants are due to a pigment called
- (A) Anthocyanin
  - (B) Carotene
  - (C) Chlorophyll
  - (D) Xanthophylls

21. Plants hormone that induces cell division is
- (A) Auxins
  - (B) Gibberellins
  - (C) Kinins
  - (D) Domins
22. Blood is formed in the human adult by the
- (A) Heart
  - (B) Spleen
  - (C) Red bone marrow
  - (D) White bone marrow
23. Glycolysis could continue to operate in all of the following poisoning situations except:
- (A) Cyanide poisoning.
  - (B) Poisoning from a fatal uncoupler.
  - (C) Oligomycin intoxication.
  - (D) None of the above; glycolysis is not affected by the events of the electron transport chain.
24. If the doubling time of a strain of bacteria is 30 minutes, how many cells would there be after 5 hours if the original culture had  $1 \times 10^5$  cells?
- (A)  $5 \times 10^5$
  - (B)  $3.2 \times 10^6$
  - (C)  $1 \times 10^8$
  - (D)  $1 \times 10^{25}$
25. Which of the following tissues is not considered a connective tissue?
- (A) Blood
  - (B) Bone
  - (C) Lymph
  - (D) Muscle

26. A particular muscle is under involuntary control, but appears striate(D) It is most likely to be:
- (A) The myocardium, the muscular portion of the heart.
  - (B) The muscle(s) that surrounds the esophagus and causes peristalsis.
  - (C) The biceps, the muscle that moves the forearm.
  - (D) The diaphragm, the muscle that allows breathing to occur.
27. The brain stem is most likely involved in what type of activities?
- (A) Coordination of intricate body movements
  - (B) Thought and memory
  - (C) Control of breathing and heart rate
  - (D) Control of emotions and sexual impulses
28. Some people who have a deficiency of vitamin A exhibit symptoms of night blindness. This condition allows normal sight during the day (in bright light) but virtual blindness when it becomes dark, when people without the condition could at least makes out shapes and outlines. It is likely that this deficiency is causing its effects by:
- (A) Blocking the passage of information down the optic nerve to the brain.
  - (B) Interfering with the functioning of the cones.
  - (C) Interfering with the functioning of the rods.
  - (D) Interfering with the functioning of all photoreceptors.
29. Cystic fibrosis, a recessive genetic disease, occurs in a particular population in approximately 1 of every 2,000 births. What is the frequency of carriers in this population?
- (A) 0.0224
  - (B) 0.9776
  - (C) 0.0219
  - (D) 0.0438

30. Wild life is continuously decreasing. What is the main reason of this?
- (A) Predation
  - (B) Cutting down of forest
  - (C) Destruction of habitat
  - (D) Hunting
31. The process of successful establishment of the species in a new area is called
- (A) sere
  - (B) climax
  - (C) invasion
  - (D) ecesis
32. Biodiversity
- (A) increases towards the equator
  - (B) decreases towards the equator
  - (C) remains same throughout the planet
  - (D) has no effect on change in latitude
33. Most fish do not sink in water because of the presence of
- I. Swim bladder
  - II. Air bladder
  - III. Air sacs
  - IV. Air in spongy bones
- (A) I and II are correct
  - (B) II and III are correct
  - (C) III and IV are correct
  - (D) I, II, III and IV are correct
34. Which are necessary for the formation of bones and teeth?
- (A) Calcium and phosphorous
  - (B) Sodium and potassium
  - (C) Calcium and magnesium
  - (D) Calcium and sodium



35. Many species of marsupials (found mainly in Australia) share similarities to species of placental mammals (found in most other regions of the world) even though they are not very closely related. This is an example of:
- (A) divergent evolution.
  - (B) convergent evolution.
  - (C) vestigial structures.
  - (D) sympatric speciation.
36. *Entamoeba histolytica* was first discovered by
- (A) Craig
  - (B) Lambel
  - (C) Losch
  - (D) Dobell
37. Allele and genotype frequencies in a population will remain constant from generation to generation in absence of other evolutionary influences state the law
- (A) of evolution
  - (B) of replication
  - (C) of genetic variation
  - (D) Hardy-Weinberg
38. Which of the following carbohydrates is a polymer of the monosaccharide glucose?
- (A) Cellulose
  - (B) Lactose
  - (C) Ribose
  - (D) None of the above
39. The pancreatic cells that manufacture and secrete the hormone insulin are of what tissue type?
- (A) Epithelial
  - (B) Connective
  - (C) Muscular
  - (D) Nervous

40. A woman with blood type AB marries a man with blood type (B) Which of the following blood types could not be found in their children?
- (A) A
  - (B) B
  - (C) AB
  - (D) O
41. What is the animal symbol of W. W. F (World Wildlife Fund) ?
- (A) Red Panda
  - (B) Giant Panda
  - (C) Tiger
  - (D) Kangaroo
42. Hot spots are regions of high
- (A) rarity
  - (B) endemism
  - (C) critically endangered population
  - (D) diversity
43. When is the World Wildlife week ?
- (A) First week of September
  - (B) Last week of September
  - (C) First week of October
  - (D) Last week of October
44. The formula for exponential population growth is
- (A)  $dN/dt = rN$
  - (B)  $dt/dN = rN$
  - (C)  $dN/rN = dt$
  - (D)  $rN/dN = dt$

45. A human population is small, there is a greater chance of :
- (A) gene flow
  - (B) genetic drift
  - (C) natural selection
  - (D) mutation
46. Often drinking excessive quantities of beer can lead to dehydration later. This can be explained because alcohol inhibits the hormone:
- (A) ADH.
  - (B) Adrenalin.
  - (C) Norepinephrine.
  - (D) Glucagon.
47. All stages in the life cycle of the malaria parasite are haploid except
- (A) Sporont
  - (B) Schizont
  - (C) Gamout
  - (D) Ookinete
48. Which segment of DNA would have the highest melting point when paired with its complimentary strand?
- (A) 5' TTCGAG 3'
  - (B) 5' TTACTA 3'
  - (C) 5' CGTACG 3'
  - (D) 5' CGCTAT 3'
49. The chemical name of Vitamin B is
- (A) Nicotinamide
  - (B) Ascorbic acid
  - (C) Riboflavin
  - (D) Thiamine

50. Triple antigen provides immunity to children against all of the following disease, except
- (A) Diphtheria
  - (B) Polio
  - (C) Tetanus
  - (D) Whooping cough
51. Hybridization is
- (A) Downward movement of water through soil
  - (B) A process of tilling the land
  - (C) Decayed vegetable matter
  - (D) Cross-fertilization between two varieties
52. The success of Green Revolution depends on the availability of
- (A) High Yielding Variety of seeds
  - (B) Adequate irrigation facilities
  - (C) Chemical fertilizers and pesticides
  - (D) All of these
53. Penicillin is widely used as
- (A) An antiseptic
  - (B) A disinfectant
  - (C) An antibiotic
  - (D) An insecticide
54. Of the following taxonomic categories which is the most inclusive (i.e. is the highest in hierarchy)?
- (A) Order
  - (B) Subspecies
  - (C) Class
  - (D) Genus

55. Photosynthesis is a process
- (A) Reductive and exergonic
  - (B) Reductive and catabolic
  - (C) Reductive, endergonic and catabolic
  - (D) Reductive, endergonic and anabolic
56. Outer covering of virus made up of protein is
- (A) Capsid
  - (B) Coat
  - (C) Virion
  - (D) Viriod
57. Entomology is the science that studies
- (A) Behaviour of human beings
  - (B) Insects
  - (C) The origin and history of technical and scientific terms
  - (D) The formation of rocks
58. Primary phloem develops from
- (A) Lateral meristem
  - (B) Protoderm
  - (C) Extrastelar cambium
  - (D) Provascular tissue
59. Plants growing on sand are called as
- (A) Chasmophytes
  - (B) Oxylophytes
  - (C) Lithophytes
  - (D) Psammophytes

60. Osmosis is the flow of solution from higher concentration to a solution of lower concentration through a semi permeable membrane. What is incorrect in this statement?
- (A) Exact concentration of solution is not given
  - (B) Character of semi permeable membrane is not given
  - (C) The flow of solution is not possible through semi permeable membrane
  - (D) All are incorrect
61. Organic Substances which, in very small amounts, control growth and development called
- (A) Vitamins
  - (B) Hormones
  - (C) Enzymes
  - (D) None of the above
62. Ptyalin is an enzyme produced in the
- (A) Salivary glands
  - (B) Pituitary glands
  - (C) Thyroid glands
  - (D) Pancreas
63. Radical vascular bundles are those in which
- (A) Xylem is surrounded by phloem
  - (B) Phloem is surrounded by xylem
  - (C) Xylem and phloem occur on the same radius
  - (D) Xylem and phloem occur on the different radii
64. Mycobacterium leprae causes leprosy, Corynebacterium diphtheria causes diphtheria and Vibrio comma causes
- (A) Tetanus
  - (B) Influenza
  - (C) Cholera
  - (D) Typhoid

65. Consequences of population explosion were explained for the first time by
- (A) De Vries
  - (B) Malthus
  - (C) Darwin
  - (D) Lamarck
66. Density of a population (D) is
- (A)  $D = S(\text{size}) / W(\text{weight})$
  - (B)  $D = S(\text{space}) / N(\text{number})$
  - (C)  $D = N(\text{number}) / S(\text{space})$
  - (D) None of the above
67. It is not a protected forest
- (A) Reserve forest
  - (B) Sanctuary
  - (C) Core of biosphere
  - (D) Orchard
68. A riboside is
- (A) Base + phosphate
  - (B) Ribose + phosphate
  - (C) Ribose + phosphate + base
  - (D) Ribose + base
69. A totipotent cell means
- (A) An undifferentiated cell capable of developing into a system or entire plant
  - (B) An undifferentiated cell capable of developing into an organ
  - (C) An undifferentiated cell capable of developing into complete embryo
  - (D) Cell which lacks the capability differentiate into an organ or system
70. Callus is
- (A) Tissue that forms embryo
  - (B) An insoluble carbohydrate
  - (C) Tissue that grows to form embryoid
  - (D) Unorganized actively dividing mass of cells maintained in culture

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# ROUGH WORK