

BT401 Genetic Resources & Conservation (ALL IN ONE)

GRAND QUIZ	LAST QUIZ-1	LAST QUIZ-2	MIDTERM MCQs
QUIZ-1	QUIZ-2	FINAL TERM MCQs	31-08-2020
SOJHLA FATIMA			

BT401 GRAND QUIZ 46 MCQs PPTs 1-60

- 1- Salmon move to -----for spawning. **River**
- 2- Plant diversity is urgently and effectively conserved is an objective of----- **GSPC**
- 3- Gene transfer between different species occurs in ----- **Horizontal gene transfer.**
- 4- Resources are classified into ----- types. **3**
- 5- NCCP -----**national culture collection of Pakistan**
- 6- Sharp lowering of population gene pool is called ----- **Bottle neck effect**
- 7- Scientific name of house cat is ----- **Felis catus**
- 8- Vintification is solidification due to increased viscosity of cold water rather than crystallization a techniques used for ----- **Cryopreservation**
- 9- Which disease was spread due to consuming mercury poisoned fishes by peoples. **MINAMATA disease**
- 10- Specific group of domestic animals having homogenous appearance behavior and other characteristics ----- **Breed**
- 11- Superior quality off spring are produced in ----- **Out breeding**
- 12- The frequency of genes in gene pool may be affected by----- **Gene flow**
- 13- The cause of migration in animals are ----- **ALL**
- 14- Peste de petits ruminants also known as ----- **Sheep and goat plaque.**
- 15- Mating of relatives beyond 2nd generation and upto 6th generation comes under----- **Mild breeding**
- 16- Genetic stock can be divided into ----- general groups. **3**
- 17- Madhuca insign is species of plant belong to family. **Sapotaceae**
- 18- PGRFA stand for ----- **Plant genetic resources for food and agriculture**
- 19- Scientific name of wild horse is ----- **Equus ferus**
- 20- A concrete plan of action especially designed to achieve concrete goals is called ---- **Strategy**
- 21- Genetic drift shows changes in the genome that may be--- **All of them**
- 22- Living genetic resources such as seeds or tissues that are maintained for the purpose of animals and plant breeding are called --- **Gamplasm**
- 23- According to IUCN extinction rate of amphibian is ----- **25% or 30%**
- 24- The combination of all the genes present in a population is called ----- **Gene pool**
- 25- The ---- is the reduction in genetic variation that result when a small subset of a large

population is used to establish a new colony. **Founder effect**

26 ----- is the reduced biological fitness in a given population as a result of inbreeding or breeding of related individuals. **Inbreeding depression**

27- Dwarf lake iris is a----- . **Plant**

28- Hazards to animals migration caused by human action or human involvement are called ----- . **Anthropogenic hazard**

29- Gene bank is a type of ----- . **Ex-situ conservation**

30- In Pakistan the total area under vegetable is ----- . **75%**

31- GSPC was founded in ----- . **1999**

32- Conservation of plant genetic resources is necessary for ----- . **Both A and B**

33- The pitcher thistle grows for ----- year before it flowers. **in Ppt 5-8 years (4-5)**

34- The degree of relationship among breeding species is less intense in ----- breeding system. **Line breeding**

35- The area of great genetic diversity are protected from human interference are known as ----- . **Gene sanctuary**

36- Migration is ----- which usually occurs for the survival of organisms. **Behavioral adaptation**

37- The transfer of DNA from one cell to another by a virus is called ----- . **Transduction**

38- Scientific name of Marco Polo sheep is ----- . **Ovis ammon**

39- Sympatric speciation is due to ----- . **Reproductive isolation**

40- Other species of crops are derived from ----- . **Wild crops**

41- Population with a lesser number of genes in their gene pool will be ----- . **susceptible to problems**

42- Resources are classified in ----- types **3**

43- The species that helps to define entire ecosystem is ----- . **Keystone species.**

44- The transfer of gene from parent to offspring is called ----- . **Vertical gene transfer**

45- The last member of the passenger pigeon was named ----- and died at the Cincinnati zoo in 1914- **Martha**

46- The migration of birds by powerful winds and hurricanes to very long distance is called ----- . **Irregular migration**

LAST QUIZ-1 55 MCQs 21-08-2020 PPTs 86-96

1. ----- is an example of exsitu conservation. **Seed bank**
2. Germplasm conservation under natural condition is called ----- . **Gene bank**
3. An area where in controlled hunting and shooting is permitted on permit basis is known as ----- . **Game reserve**
4. If hunting is prohibited in a particular area it may be considered a ----- . **Nature reserve**

5. A ----- is a large area of land where wild animals live safely or are hunted in a controlled way for sport. **Game reserve**
 6. Sarus Crane is one of ----- species at Runn of Kutch wildlife sanctuary. **Threatened**
 7. ----- is not generally seen in biodiversity hotspot. **Lesser interspecific competition**
 8. Suitable light intensity range for the most of the plant cultures is ----- μmol . **10-1000**
 9. The type of coiling in DNA is -----, **Right handed**
 10. ----- is defined as number of species represented in a specific region, landscape or ecological community. **Species richness**
 11. Gene sanctuaries are type of -----, **In situ conservation**
 12. Germplasm conservation under natural condition is called. **In situ conservation**
 13. DNA banks are used for storage of those species that cannot be conserved ---- in process of conservation. **In situ**
 14. Endemic species are -----, **Species localized in a specific region**
 15. The first genomic libraries were cloned in -----, **Plasmid**
 16. The use fullness of the specimen for PCR based assays is greater than 4 years when stored at -----, **-80°C**
 17. In the ----- major focus is animals. **Game reserve**
 18. Gene sanctuary is known as -----, **Natural park**
 19. High humidity increase the ----- growth. **Fungus**
 20. What is Dimethyl sulfoxide used for -----, **Chelating agent**
 21. In ----- conservation of habitats rich in genetic diversity was recommended in the UN conference. **1972**
 22. An international board for plant genetic resources (IBPGR) WAS ESTABLISHED IN -----, **1972**
 23. What are Callus. **An unorganised actively dividing the mass of cells maintained in a culture.**
 24. Germplasm conservation is important conservation for ----- plants. **Wild**
 25. Runn of Kutch wildlife sanctuary is part of the -----, **Thar desert**
 26. There are two main drawbacks of gene sanctuary one of which is that. **It cannot be easily maintained**
 27. Lyophilisation during DNA storage process helps to ----- the DNA. **Preserve**
 28. A place or area where maximum variability of crop plant is observed is called -----, **Gene Sanctuaries**
 29. The natural protected area used for the conservation of genetic diversity is called ---, **Gene Sanctuaries**
 30. Field gene banks also called plant gene banks are areas of land in which ----- collections of growing plants assembled. **Germplasm**
 31. In 1984 gene sanctuaries for conservation of wild relatives of coffee was setup in ---, **Ethiopia**
 32. What is the characteristic of the DNA that is used for the construction of library. **Naked DNA**
- Plants are totipotent because --- **A single cell could become a complete plant**

34. How long a seed remains viable is known as its -----, **Viability**
35. DNA of plants can be preserved by rapid drying of plant samples with the help of --- material. **Silica gel**
36. Which of the following statement is truly described the biosphere reserves. **All of given**
37. Gene banks are known as -----, **All given**
38. Ex cultio conservation includes -----, **All given**
39. Madagascar Pochard die at young age due to ----- **All of them**
40. ----- is the secure long term storage of an individuals genetic material. **DNA banking**
41. Tissue culture conservation is an alternative to -----, **Vegetative propagation**
42. The bulmers fruit bat is listed as ----- on the IUCN RED LIST. **Endangered**
43. The first genomic libraries were cloned in _____. **Plasmid**
44. The removal of the medium and transfer of cells from its previous culture into fresh growth medium for further propagation of the cell is called-----, **Subculturing**
45. Plant seeds are stored in _____ for long term storage. **In-vivo Gene Bank**
46. In plant tissue culture what is the term Organogenesis means. **Formation of root and shoot from callus culture**
47. Desert wolf is ----- in cholistan wildlife sanctuary. **Rare**
48. During tissue culture growth room temperature range from ----- depending on requirement. **22°C to 28°C**
49. Ex suito conservation is also known as -----, **Static conservation**
50. Threatened species of Runn of kutch is -----, **all of above**
51. Cryopreservation is storage of materials at ----- temperature. **Low**
52. ----- can be considered complementary conservation. **DNA banks**
53. Gene sanctuary is generally establish in the center of -----, **Diversity**
54. The sum total of all the gene present in a crop and its related species constitutes its -----, **Germplasm**
55. Gene sanctuaries not only preserve the existing genetic diversity present in a population due to which new ----- combination would appear with time. **Allele and gene**

LAST QUIZ-2 40 MCQs 27-08-2020 PPTs 97-107

- 1- Forests are important due to. (**All given**)
- 2- A situation where two (or more) species reciprocally affect each other's evolution is describes as _____. (**Co-Evolution**)
- 3- Natural selection favours genotypes with _____. (**All given**)

- 4- Candidate gene for drought tolerance include those involved in_____.
(All given)
- 5- Forests majorly remove_____from the atmosphere and produce oxygen
(Carbon Dioxide)
- 6- Invertebrates accounts for_____% of the animals on earth. (95)
- 7- The most important cause of extinction of animals and plants is_____.
(Habitat Loss)
- 8- The adaptive capacity of ecosystem is more likely to dependent on
_____. (Invertebrate biodiversity*)
- 9- It has been estimated that at least_____percent of world food production
comes from crops that are dependent on insect pollination. (35)
_____. (All given)
- 11- The ability of one phenotype to produce more than one phenotype when
exposed to different environmental conditions without genetic changes is
called_____. (Phenotypic Plasticity)
- 12- Forest help in driving_____. (Climate Change*)
- 13- The capacity of ecosystem to adapt is diminished when biodiversity of
_____is lost (Invertebrates)
- 14- Most invertebrates are expected to change their geographical
distribution_____. (In response to climate change)
- 15- Forest genetic resources or forest tree genetic resources are_____of
forest shrub and tree species of actual or future value. (Genetic Material)
- 16- Perhaps the most neglected group of all in research, in farming practices,
and in policies and strategies for agriculture and biodiversity are the soil-
dwelling_____. (Invertebrates)
- 17- _____ is defined as the capacity of a particular genotype to express
different phenotypes under different environmental conditions. (Phenotypic
Plasticity)
- 18- _____help to maintain soil structure and the availability of water
throughout the soil profile (Earthworms)

- 19- _____ ensures the success of species in environments that are highly variable and subject to change. **Genetic Diversity**
- 20- _____ are needed to be able to cope with changing climatic conditions and increasing demands for food and retain the capacity to adapt to potential change in the types of crops grown. **Pollinator Populations**
- 21- The lack of _____ may inhibit the ability of the population to respond to climate change. (**Genetic Diversity**)
- 22- Forest trees are known for showing great _____ in their response to climate changes. (**Plasticity**)
- 23- Tree mortality in ecosystem increases due to changes in _____. (**All given**)
- 24- The act of moving plants and animals by human to different habitat to _____. (**Assisted Migration**)
- 25- Changes in climate also make it possible for _____ and diseases to invade new areas, destroying the forests there. (**Pests**)
- 26- _____ factor/ factors can affect the services of invertebrates to the environment. (**All given**)
- 27- Tree populations rely on _____ interplaying mechanism to respond to environmental change. (**All given**)
- 28- Climate change related traits include _____. (**All Given**)
- 29- Seed orchards, clone banks and clonal archives are examples of _____ conservation units. (**Static ex-situ**)
- 30- Some larger soil-dwelling invertebrates, such as earthworms, ants and termites, help maintain the chemical fertility needed for _____. (**Plant Growth**)
- 31- The lack of **genetic diversity** may inhibit the ability of the population to respond to _____ change. (**Climate**)
- 32- _____ have created barriers to the migration of invertebrate species. (**Human activities**)
- 33- Some insects use tree terpenes as precursors for their communication _____ to incorporate them into their own defense systems. (**Pheromones**)
- 34- Hybridisation introduce the new genetic variation required by trees to adapt to _____. (**Novel Environments**)
- 35- Assisted migration may be undertaken _____. (**All given**)
- 36- Considering the better studied mammals and birds, 100% of the currently described species have been evaluated for their conservation statues and, out of these, _____ out of 9990 bird species are considered to be endangered. (**12%**)

- 37- _____ organisms are described as engineers of ecosystem.
(Earthworms)
- 38- Some large soil dwelling invertebrates such as earthworms, ants and termites have been described as "ecosystem _____". (Engineers)
- 39- Studies have shown that the presence of invertebrates, such as earthworms can help to _____ the effect of drought on crops production. (Alleviate)
- 40- Almost 35% of world food production comes from crops that are dependent on _____. (Insect Pollination)

MIDTERM PAST MCQs Solved

1. Genetic resources are sometimes called _____ first resource
2. Landraces is a _____ local variety of domesticated plants
3. Which is called rosewood _____ dalbergiaSissoo
4. Total area under legume crop in Pakistan _____ 1.5m hectares
5. Which one is extinct features of species _____ white rhino
6. Total remaining snow leopard in Pakistan _____ 200
7. GSPC program founded in _____ 1999
8. Microorganisms produces in _____ Antibodies
9. According to world database on protected area there are over _____
protected areas around the world. 210,000
10. Rhino are hunted for _____ horns
11. Natural selection will always result in the -----that gives an advantage to its possessor selection of allele
12. Cryopreservation in liquid nitrogen _____ at-196 degree
13. How many categories of gene flow _____ 2
14. Breeding type that is not released to half sister brother and cousins _____
close breeding
15. The strongest effect of genetic drift on _____ small population
16. Themes of genetic resources _____ 2
17. Himalayan brown bear _____ 150-200
18. Pakistan in kinow production _____ 6th number
19. Tigers of migration _____ all
20. Gene flow blocked by physical barriers _____ allopatric speciation
21. Plant genetic resources are the building blocks and fundamental not only in-----but also for the very survival of the species in time and space
crop improvement program
22. Biologist suspect we're living through the ----- mass extinction sixth major
23. Honey bee pollinates how much plants _____ 250,000 species of plants
24. _____ is a pioneer species easily regenerated from seed. Acacia nilotica

25. Sheep was domesticated by humans in _____ 10,000BC
26. Phenylketonuria caused by _____ mutation
27. Allele frequency affected by _____ such as mountain *gene flow *inbreeding* natural selection* founder effect?* random genetic drift evolutionary mechanism
28. Population bottleneck in 1890s due to _____ overhunting
29. Reason for crustaceans migration? _____ for breeding
30. Sterculia khasiana was endemic tree of Khasi Hills In Meghalaya In India
31. Which involves storage in high and low temperature _____ cold storage
32. Which of the following is the earliest modern protected area? _____ yellow stones national park
33. Bees are responsible for pollinations _____ 250,000species
34. Mild form of breeding _____ line breeding.
35. Migration involves following type of hazards, _____ 2 type natural hazards, anthropogenic hazards to migration).
36. Type of inbreeding _____ 3 1-close inbreeding, 2-mild breeding, 3-line breeding
37. Gene bank is a type of _____ ex-situ conservation
38. Area of greatest genetic diversity are protected from human interface are known as _____ gene sanctuary
39. Animals genetic resource referred as _____ all given options
40. PGRA stands for _____ plant genetic resource for food and agriculture
41. NCCP stands for ----- national culture collection of Pakistan
42. Conservation of plant genetic resource is necessary for _____ food security and agro biodiversity Both A&B
43. Peste de petites ruminants also known as _____ sheep and goat plaque
44. According to FAO species of mollusk are 85000.
45. GSPC was founded in _____ 1999)
46. which disease spread due to consuming mercury poisoned fishes by people _____ MINAMATA
47. Longest migration was observed in _____ arctic tern bird
48. Cryopreservation can be done _____ -196c.
49. Calypha belongs to family _____ spurge family euphorbaceae / spurge family
50. Cause behind extinction of steller sea cow _____ hunting
51. Rhino were hunt for _____ horns
52. Darwin finches is example of _____ adaptive radiation
53. Result of environment and human change _____ bottleneck effect
54. Types of breeding _____ 3
55. Genetic diversity is the variation of individual amount of genetic information
56. Example of extinct species _____
57. Population of Himalayan bear _____ 150-200 in Pakistan
58. Which species is easily regenerated _____ acacia nilotica

59. Sigillaria was a tree _____ spore bearing
60. The tecopa pupfish was native to the _____ Mojave desert
61. Extinction rate of mammals _____ 20%
62. Wild beest are the part of _____ great migration
63. Which of the following approach can be taken to analyze GxE interaction _____ polygenic
64. Northern areas of Pakistan serving as _____ habitat
65. Longest migration was observed in _____ arctic tern bird
66. Cryopreservation can be done _____ -196°C
67. Calypha belongs to family _____ spurge family euphorbiaceae / spurge family
68. Cause behind extinction of steller sea cow _____ hunting
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75. Population of himalayan bear _____ 150-200 in Pakistan
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80. Wild beest are the part of _____ great migration
81. Which of the following approach can be taken to analyze GxE interaction _____ polygenic
82. Northern areas of Pakistan serving as _____ habitat
83. Land race is known as _____ weed, mutant, cultivator, primitive
84. Which is used to protect individuals in protected environment _____ in situ.
85. Which is used large scale for food and agriculture _____ sheep.
86. Phenyl ketonuria is generation caused by _____ mutant.
87. Example of founder effect ? (hemophilia, dwarfism, infant death, _____ all
88. Types of migration _____ 4
89. PGR are components of _____
90. Genetic resources are sometimes called _____
91. According to FAO species of mollusk _____ 85000
92. Which hazard of migration _____ all
93. Plant genetic resources are building and fundamental not only in.....but also for the very survival of species in time and space, _____ crop improvement program
94. Which is example of in situ - A, national park, biosphere, gene bank. all
95. _____ is known as Indian rosewood. Dalbergia sissoo
96. Pakistan is the _____ largest producer of kinnow oranges 6th
97. ABSA stands for access and benefit sharing agreement.
98. In 19th century only elephant seals were present _____ 20

1. Reef are home to _____ % marine animals _____ 25
2. Gene pool types _____ 3
3. Crow follow migration, _____ daily
4. Dwarf lake iris appearance _____ deep blue
5. Cooling proces in which water of tissue become glass of crystal vetrification
6. Cryopreservation is applicable to fishery medical animal-husbandry _____ all
7. Cause of extinction climate change hunting population _____ all
8. Yellow stone national park designed _____ 1872
9. Sea cow hunted _____ to extinction 1768
10. Extinct plant fill cultivated in capacity is _____ cynea superba
11. Breeding line have _____ narrow genetic base
12. Cause of extinction _____ climate change hunting, pollution all
13. Honey bee pollinates plants _____ 250000
14. Cryopreservation id one in low temperature and deep at freezing _____
-80degree
15. Species in danger extinction are _____ endangered
16. Transfer of gene from parent to offspring _____ Vertical transfer of gene
17. How many animal species in danger _____ 20,000 not confirm
18. For which purpose the crustacean can migrate _____ mating
19. Microorganisms are _____ diversity than other living organisms highest
20. Wildebeest are the part of _____ migration
21. Variation in genetic information of with in of same individual of population _____
genetic diversity
22. Allele frequency is affected by _____ all given
23. Population bottleneck in 1890s due to _____ overhunting
24. GWIS stand for _____ A genome wide interaction scan
25. Phenyle- alkaptonuria is the genetic disease caused by _____ mutation
26. _____ is a local variety of domesticated plant species Landrace
27. Sea cow hunted to extinction in ----- 1768
28. Animal closely related to ----- close breeding
29. Dart poison frog have compound _____ alkaloid
30. Genetic resources are sometimes called _____ first resource
31. Landraces is a _____ local variety of domesticated plants
32. Which is called rosewood _____ dalbergia Sissoo
33. Total area under legume crop in Pakistan _____ 1.5m hectares
34. Which one is extinct features of species _____ white rhino
35. Total remaining snow leopard in Pakistan _____ 200
36. GSPC program founded in _____ 1999
37. Microorganisms produces in _____ Antibodies
38. According to world database on protected area there are over 210,000
protected areas around the world.
39. Rhino are hunted for _____ horns
40. Natural selection will always result in the----- that gives an advantage to
its possessor selection of allele
41. Cryopreservation in liquid nitrogen _____ at-196 degree

42. How many categories of gene flow _____ 2
43. Breeding type that is not released to half sister brother and cousins -----line breeding
44. The strongest effect of genetic drift on _____ small population
45. Themes of genetic resources _____ 2
46. Himalayan brown bear _____ 150-200
47. Pakistan in know production _____ 6th number
48. Tigers of migration _____ all
49. Gene flow blocked by physical barriers _____ allopatric speciation
50. Plant genetic resources are the building blocks and fundamental not only in crop improvement program, but also for the very survival of the species in time and space
51. Biologist suspect we're living through the sixth major mass extinction
52. Honey bee pollinates how much plants _____ 250,000 species of plants
53. *Acacia nilotica* is a pioneer species easily regenerated from seed.
54. Sheep was domesticated by humans _____ 10,000BC
55. Phenyl alketonuria caused by _____ mutation
56. Allele frequency is effected by evolutionary mechanism such as (mutation*gene flow_in -breeding, natural selection, founder effect, random genetic drift).
57. Population bottleneck in 1980 due to _____ over hunting
58. Reason for crustacean migration _____ for breeding
59. *Sterculia khasiana* was endemic of tree _____ khasi hills in Meghalaya India
60. Which involves storage low and non freezing temperature _____ cold storage
61. Migration involves five types of hazards _____ 2type national hazards, anthropogenic hazards to migrants
62. Type of inbreeding _____ 3type 1.close inbreeding, 2.mild breeding, in line breeding)
63. Gene bank is type of _____ ex situ conservation
64. Area of great genetic diversity are protected from human interference are known as _____ gene sanctuary
65. Animal genetic resources reffered as _____ all given options
66. PGRFA stands for -----plant genetic resource for food and agriculture
67. NCCP stand for -----national culture collection for Pakistan
68. Conservation of plant genetic resource is necessary for _____ food scrunity and Agro-biodiversity _ both A&B
69. Peste de petis ruminants also known as _____ sheep & goat plague
70. According FAO species mollusk are _____ 85000
71. Which disease is spread due to consuming mercury poisoned fishes by people _____ MNAMATA
72. The earliest modern protected area ----- yellow stone national park
73. Longest migration was observed in _____ arctic term bird
74. Cryopreservation can be done _____ -196c

75. Calypha belongs to family _____ **spurge family euphorbaceae**
76. Cause behind extinction of steller sea cow _____ **hunting**
77. Darwin finch is example of _____ **adaptive radiation**
78. Result of environmental human change _____ **bottleneck effect**
79. Genetic diversity is the variation of individual in **the amount of genetic information**
80. Which species easily generated _____ **acacia nilotica**
81. Sigillaria is a tree _____ **spore bearing**
82. Thetecopa pupfish is native to the _____ **Mojava Desert**
83. Extinction rate of mammals _____ **20%**
84. Wild beast are the part of _____ **great migration**
85. Which of the following approach can be taken to analyze GxE interaction **polygenic**
86. Northern areas of Pakistan are serving _____ **habitat**
87. Reef provide habitat to marine life _____ **25%**
88. Land race is known as _____ **cultivar.**
89. Which used to protect individual in protected environment _____ **in situ conservation**
90. Which is used as large scale for food and agriculture _____ **sheep**
91. Phenyl ketonuria is genetic condition caused by _____ **mutant**
92. Which has strong genetic drift _____ **large, small, average, all**
93. Example of founder effect **hemophilia, dwarfism, infant death, all**
94. Tigers of migration _____ **local climate, local availability of food, season of the year, formatting reasons. 4**
95. Which of the following is used to protect at suitable environment **in situ**
96. Which is hazard of migration _____ **drought, food supply, all**
97. Natural selection shows ----- change in genome, **positive**
98. Biologist suspect we are living through _____ **major mass extinction, six**
1. Dart poison of frog yield compound like _____ **alkaloid**
2. Sigillaria was a tree _____ **spore bearing**
3.are from generation to generation of all living matter _____ **genes**
4. Which is example of in situ _____ **national park, biosphere, gene bank. all**
5. ABSA is stand for _____ **access and benefit sharing agreement by interfering**
6. Northern areas of Pakistan are serving as _____ **habitat**
7. In 19th century only elephant scales were present _____ **20**
8. Darwin finch is classical example of _____ **adaptive radiation**
9. For which purpose crustacean migrate for ----- **breeding**
10. Reef provide habitat to _____ **marine life**
11. Gene pool types _____ **3**

12. Crow follow migration _____ daily
13. Dwarf lake iris appearance _____ Deep Blue
14. Cooling process in which water of tissue become glass instead of crystal verification
15. Cryopreservation is applicable to _____ fishery medical, animal husbandry. all
16. yellow stone national park is designed in _____ 1872
17. Causes of extinction _____ climate change, hunting, pollution, all
18. Sea cow hunted to extinction in _____ 1768
19. Extinct plant still cultivated in captivity is _____ Cyanea superba
20. Cryopreservation is done low temp and deep freezer at _____ - 80degree
21. Allele frequency is affected by _____ mutation gene flow breeding all
22. Breeding line have _____ narrow genetic base
23. Animal closely related in _____ close breeding
24. Transfer of gene from parent to off spring _____ vertical transfer of gene
25. Species in danger of extinction _____ endangered
26. GWIS stand for _____ a genome wide interaction scan
27. Microorganisms are _____ diversity than other living animals high
28. Variation in genetic information of with in same individual of population genetic diversity
29. How many animal species are in danger _____ 20,000
30. Phenyl alkatonuria is genetic disease caused by _____ mutation
31. _____ is local variety of domesticated plants species. landrace
32. Which of the following is result of productive isolation sympatric speciation
33. Which of the following population has strong gentec drift _____ small population
34. National strategy of PGRFA need t be review if ----- changes world
35. Main threat to large number of species ----- . Pollution
36. If the advantageous gene is removed then the effect is called _____ genetic drift

37. Microorganisms are _____ **more diverse**
38. Main reason behind mela disease.
39. Natural selection effects on ecosystem.
40. Together with the components which fulfill agri-ecological functions genetic reason are grouped under the concept _____ **agro biodiversity**
41. PGR are components of.....which sustain the humankind _____ **biodiversity**
42. Genetic resource are heritable characteristics ... **of real potential benefit** A plant b animal c none ,d both a & b _____ **both a & b**
43. The degree of relationship is not closer half brother or sister mating or cousin mating a breeding b out breeding c pure breeding .d line breeding _____ **line breeding**
44. -----is a keystone species , a grizzle bear b Pyrenean ibex c snow leopard d, sea mink **grizzle bear**
45. Cryopreservation occur a liquid nitrogen b freezing temperature c vapor nitrogen **All**
46. Derived genetic expect _____ **inbreeding**
47. Can not permeate the cell membrane such as _____ **sugar**
48. A membrane permeating b non membrane permeating c and b , d none **non membrane permeating membrane**
49. ----- rare treat for eye **hurt fem**
50. The introduction of genetic material by inter-breeding from one population of species to another is _____ **gene flow**
51. Which one of the following is the example artificial barriers **the great china wall, dams, barrages , All**
52. An individual can be protected in controlled environment is _____. **Ex situ conservation**
53. Wild best is an example of _____ **great migration**
54. Which one is the reason of bottleneck effect by _____ **mutation, gene flow, inbreeding, all of the above.**
55. Example of founder effect haemophilia , dwarfism, still birth, /infant birth **all of these**
56. Sheep was domesticated by human in _____ **10,000BC**

57. Which is easily regenerated from seed _____ **acacia nilotica**

58. Genes can be transferred sexually or asexually ----- **vertical transfer**

BT401 QUIZ-1 SOLVED

1. Which disease was spread due to consuming mercury poisoned fishes by people ----- **Minamata disease**
2. NCCP stands for ----- **Natural cultural collection of Pakistan**
3. Genetic stock can be divided into ----- **general groups. 3**
4. PGRFA stands for ----- **Plant genetic resource for food and agriculture**
5. GSPC was founded in ----- **1999**
6. Plant diversity is urgently & effectively conserved is an objective of **GSPC**
7. According to FAO species of mollusks are approximately ----- **85000**
8. Areas of great genetic diversity are protected from human interference are known as ----- **GENE Sanctuary**
9. Peste des petits ruminants also known as ----- **Sheep and goat plaque**
10. Gene bank is a type of ----- **Ex situ conservation**
11. Woody plants like trees have a ----- genetic diversity then vascular plants like grasses. **Higher**
12. Conservation of plant genetic resources is necessary for ----- **Food security and agrobiodiversity both A & B**
13. The lottery conducted in various countries for purposes of money making provides a good example of -----
a) Uniform distribution b) **normal distribution** c) binomial distribution d) poisson distribution **not confirmed**
14. Animals genetic resources referred as ----- **All**
15. In a binomial distribution formula of calculating standard deviation is -----
a) \sqrt{p} b) \sqrt{pq} c) \sqrt{npq} d) \sqrt{np} **not confirmed**
16. In a normal distribution how much areas lies b/w $\mu \pm \sigma$ is -----
a) 65% b) 68% c) 75% d) 80% **not confirmed**
17. What is the value of cumulative distribution function $F(x)$ of $x=3$
a) 0.75 b) 0.45 c) 0.35 d) 0.65 **not confirmed**

BT401 QUIZ -2 SOLVED

1. The main objective of category v is ----- **To main a balanced interaction of nature and culture**
2. Hingol national park was declared reserved in ----- **1988**
3. Which species has been introduced in Lal Suhanra national park ----- **Black buck**
4. Some larger soil dwelling invertebrates such as earthworm ants and termites has been described as ----- **Ecosystem engineers**

5. Perhaps the most neglected group of all in research in farming practices and in policies and strategies for agriculture and biodiversity are the soil dwelling ----- **Invertebrates**
6. The useful of the specimen for PCR based assays is greater than 4 years when stored at ----- **-80°C**
7. Tissue culture conservation is an alternative to ----- **Vegative propagation**
8. Which category areas are not necessary associated with human presence and intervention. **Category IV**
9. Considering the better studied mammals and birds 100% of the currently described species have been evaluated for their conservation statuses and out of these ----- out of 9990 birds species are considered to be endangered. **12%**
10. During tissue culture growth room temperature range from ----- depending on species requirements. **22-28 °C**

BT401 FINAL TERM PAST MCQS

1. Darwin finches classical example of ----- **genetic drift**
2. bottleneck effect elephant seal ----- **over hunting**
3. population has more chances of survival ----- **large gene pool**
4. services generally more efficient ----- **decentralized quarantine**
5. Since Insitu conservation has received high priority to the world ----- **1980**
6. the cutting of tree act ----- **1992**
7. Genetic stocks can be divided into ----- Cytological stocks, Mutant stocks, Germplasm set ----- **all**
8. Genetic diversity is the variation of individuals in ----- Genes, Alleles, cells, ----- **both a & b**
9. Northern areas of Pakistan are serving as ----- **habitat for many species.**
10. In 19th century only individuals of Elephant whales were present ----- **20**
11. wildebeest are the part of ----- **sardine run migration**
12. Largest migration was observed in ----- **Arctic tern bird**
13. Species that are threatened are sometime characterized by ----- Population dynamics, Measure of critical dispensation, A mathematical measure of bio mass. **All of above**
14. Encourage the conservation of agro biodiversity and aquatic biodiversity -- ----- **Proted land sea scape**
15. ----- as a mass of complimentary conservation ----- **. DNA Bank**

16. Tree population rely oninterplaying mechanisms to respond to environmental change___ 3
17. Nagoya protocol ratified byparties. _____ 97
18. Climate change may however cause range expansion is _____ herbivore insects
19. Thermal gradient can induce _____ due to uneven expansion or contraction in the biochemical system. _____ mechanical stress
20. _____ are preserved by cryopreservation method _____ Genetic material
21. Which one of the following is culturally influenced in natural reserve _____ cave dwelling
22. Genetic resources for food, agriculture and forestry include _____ Both wild and domesticated species
23. Earthworms, ants and termites, have been described as _____ ecosystem engineers
24. Anthropogenic climate change leading to future large-scale dieback in _____ Amazonian rain forest.
25. National park spreading in an area of -----100 SQ. KM. TO 500 SQ. KM.
26. Pollinator are _____ major group of invertebrates. -----SECOND
27. Insects pollinate how much plant species _____ .35%
28. Dolphin is a _____ mammal
29. Ramsar convention came into _____ 21 december1975
30. -----% of 5488 mammal species and 12 out of 9.990 bird species are considered to be change 21%
31. WCPA stands for _____ world commission on protected areas
32. In Europe one estimate put the role of value marketed _____ non wood goods from forest at 2.3 billions
33. Since the _____ the population of Indus has significantly increased here. 1970
34. Largest national park of Pakistan _____ Hingol National Park
35. If hunting is prohibited a game reserve may be considered _____ nature reserve
36. A sanctuary is protected area which is reserved for the conservation of only animals and human activities like harvesting of timber
37. Bahawalpur zoo covers _____ 25 acres
38. Black buck became virtually extinct in the Cholistan desert but the species has been reintroduced to Lal Suhanra.
39. Hingol national park declared reserved in 1988
40. Natural geological and geo morphological features waterfalls, cliffs , clatters, caves).
41. Seaweeds population is _____ 13000
42. Snow leopard population in Pakistan left _____ 200
43. Report on fish sperm cryopreservation published in _____ by Blaxter1953
44. Cryopreservation in liquid in _____ -196degrees

45. Cartagena protocol was adopted on _____ ,june 2001, at Cartagena-Spain
46. Vegetative propagation is ----- tissue culture
47. Using micro-array analysis, detected that up to 113 genes, were significantly induced by drought into Mediterranean pine tissues.
48. Large natural areas comes into category VI
49. In 2013,rasmer sites has been declared in Pakistan ----- 19
50. In the game reserve the major focus is specifically ----- the animals
51. Climate has direct effect on -----FGR.
52. There are ----- types of genome transfer two
53. ----- will be fine for cutting tree in 1992 act 5000 rupees
54. Convention on biological diversity -----1992
55. FAO stands for ----- food agriculture organization
56. GEWIS stands for ----- genome wide interaction scan
57. -----often result of reproductive isolation Sympatric speciation
58. Light intensity for most plants culture require ----- 50-200 umol-S-1-m-2
59. ----- protected areas act as buffer Category V
60. Cartagena protocols not cover products derived for m LMOs
61. Cartagena protocols deals with ----- biosafety
62. Chashma and Tuansa barrage declared wild life sanctuaries by ____ Punjab government
63. Land race also called local variety of domesticated plants
64. -----are verities developed as since the advent of scientific agriculture in the late nineteenth century Obsolete varieties
65. ----- is easily generated from seed Acacia Nilotic
66. Anthropogenic impact is apparent in the -----Coastal Zone
67. Mild breeding is type of ----- inbreeding
68. -----are small sites they focus on more__ prominent natural features National monuments
69. IBPGR stand for ----- international board of plant genetic resource
70. In ---- the food and agriculture organization of UN published the first state of FGR 2014
71. The wild birds abd animal protection act ----- 1912
72. Pakistan animal quarantine ----- 1979
73. PGRFA stands for----- plant genetic resource for food and agriculture
74. NCCP stands for ----- national culture collection for Pakistan
75. Peste des petetis ruminants are called ----- sheep and goat plaque
76. According to FAO species of moluskus are ----- 85000
77. GSPC was found in ----- 1999
78. Which disease is spread by consuming mercury poisoned fish MINAMTA disease
79. Genetic stocks can be derived into ----- 3 groups

80. Pakistan is the -----producer of kinnows oranges in the world. **sixth largest**
81. A ----- can be taken to analyses G across E interactions **polygenic approach**
82. SterculiaKhasia is endemic tree of the **Khasi Hills**
83. OHSS stand for ----- **ovarian hyper stimulation syndrome**
84. Genetic resource is sometimes called ----- **first resource**
85. Phenyl Ketonuria caused by----- **mutation.**
86. When species has been reintroduced in Lalsuhanra national park? **Black buck**
87. If the advantage gene is removed then the effect is called ----- **genetic effect**
88. Crow flow migration ----- **daily**
89. Darwin finches is is example of ----- **adaptive radiation**
90. ----- produce by dart poison frog ----- **toxins**
91. Hiamalyan brown bear ----- **15-200**
92. Special care unit ----- **ex-situ**
93. Closely related individuals ----- **inbreeding**
94. Micro-organisms are ----- **more-diverse**
95. National strategy for PGRFA may help ----- **country**
96. Crustacaens migrate for ----- **breeding**
97. Genetic strong drift mat effect on storage in ----- **small population**
98. Coral reefs are also threatened reef for home ----- of marine animals **25%**
99. Earliest modern protected areas ----- **yellow stone national park**
100. The main objective of category V is ----- **maintain a balance interaction of nature and culture**
101. Which category area are not associated with presence and intervention **category- IV**
102. Main objective of habitat species management area A. to maintain species, B to conserve species,3. to conserve species and maintain habitat) **all of these.**
103. Sir Saqiq Muhammad Khan established ----- **bahawalpur Zo**
104. **WCPA** stand for ----- **world commission on protected areas**
105. Which of the following category encourage biodiversity aquatic biodiversity **category-V**
106. Tigers for migration ----- **all of these**
107. -----are link for generation to generation for all living matters **Genes**
108. **IABGR** stands for ----- **institute of agriculture biotechnology and genetic resources**
109. -----by sexual and asexual reproduction **Vertical gene transfer**
110. More genetic variation in populations ----- **natural selection**

111. ----- is an example allopatric speciation. **Darwin finches**
112. Animal genetic resource Animal genetic resource, Animal genetic resource for food and agriculture, 3.farm animal genetic resource. **all of these**
113. Which of the following category encourage the conservation of aquatic bio-diversity **category V**
114. Gene bank is a type of ----- **Ex situ conservation**
115. Calyha rubrinerv is belong to family ----- **Euphorbiaceae**
116. Number of laboratories in plant genetic resource in Pakistan -----
six-6
117. Areas of great genetic diversity are protected from human interface **gene sanctuary**
118. Sheep were domesticated by humans around ----- **10.000BC**
119. Plant diversity is urgently and effectively conserved is an objective of **GSPC.**
119. Woody plants like trees have ----genetic diversity than vascular plants like grass **Higher**
120. Conversion of plant genetic resource is necessary for food security, agro bio diversity, commercial use **both a & b**
121. The problem in strict nature reserves is (a disease b, climate change, air pollution **Both B & C**
122. ----- can be used to introduce species that left an area. **Ex-situ conversion**
123. Rasmar conversion was negotiated in -----by countries and NGOs **1960**
124. Greater efforts are needed to estimate the full value of -----
PGRFA
125. Species that are threatened are sometimes characterized by (a, population dynamics, critical dispersion, c. mathematical measure of biomass **all of these**
126. Gene sanctuaries provide way to preserve (a. wild species, natural ecosystem. Natural habitat **all of these**
127. Key focus for regulating many of bio chemical process -----
temperature
128. Category VI is not designed to accommodate ----- **large scale industrial harvest**
129. It is cheep method for conversion broad range of germ-plasma -----
seed storage

130. To date one of the most extensive programmes to develop trees with resistance to insect pests in temperate regions is in **British Columbia**
131. Houghton and Godeniro typically grows on (moist sandy beaches, shallow depressions, low sand ridges) **all**
132. Quite small protected area and high visitor value Category III **national monuments features**
133. ----- is a category wherein samples of animals genetic are preserved cryogenically. **Animals genetic resources**
134. Genetic variation are the variation due to genes allele) **Both A & B**
135. Habitat management work **all of the above**

FINAL TERM MCQs PPTs 61-85 & 108-120

- 1- Selection of proper plant ----- is important. **material**
- 2- ----- are chemical which prevent cryodestruction. **Cryoprotectant**
- 3- The maintenance of the frozen cells or material at specific temperature is very important -76 to ----- degree. **-196**
- 4- Prolong storage is done at temperature of -196 degree in -----.
liquid nitrogen
- 5- ----- is the process of freezing cells and tissues using liquid nitrogen.
Cryo-conservation
- 6- Cryopreservation is used to maintain the biosynthetic properties of -----
-. **plants**
- 7- During the cycle where the eggs are harvested, patients undergo a traditional -----.
IVF protocol
- 8- Upto ----- human body is composed of water. **60%**
- 9- The freezing point of water is ----- centigrade while cryocopy temperature can be as low as 90 degree centigrade. **0 degree**
- 10- The 1st report on fish sperm cryopreservation was published by -----
-. **Blaxter (1953)**
- 11- Eggs frozen at the age of 35 are more usable than fresh oocytes produced at age ----- of age. **43 years**

- 12-According to the World Database on Protected Areas (WDPA) there are over ----- protected areas around the world. **210,000**
- 13-Commercialization of land and water in ----- is creating challenges in many parts m, that can of the world. **category II**
- 14----- areas are likely to hold sociocultural values. **Category III**
- 15-Category IV areas are important for their role in ----- in conservation strategies. **plugging the gaps**
- 16----- offers unique contributions to conservation of biological diversity. **Category V**
- 17----- is an area which is strictly reserved for the betterment of the wildlife & biodiversity. **National park**
- 18----- is the largest of National Park of Pakistan which supported birds. **Hingol National Park of Balochistan**
- 19----- National Park is the the second largest national park of Pakistan in Sindh. **Kirthar**
- 20-Backbuck became virtually extinct in Cholistan Desert but the species has been reintroduced in ----- . **Lal Suhanra**
- 21-A ----- park is a location where animals are kept in captivity for study and viewing. **zoological**
- 22-Sadiq Muhammad Khan Abbasi, established Bahawalpur Zoo in ----- which cover 25 acres. **1942**
- 23-A ----- Zoo is established since 1996-2001 for public recreation. **Safari**
- 24----- can alter the temperature of the Earth's atmosphere. **Plants**
- 25----- is one of the global intergovernmental environmental agreements. **Ramsar**
- 26-In 2013, ----- Ramsar sites has been declared in Pakistan. **19 (nineteen)**
- 27----- is an area which is of adequate ecological, faunal, flora zoological significance." **Sanctuary**
- 28-Pakistan Environmental Protection Act, ----- . **1997**
- 29-Pakistan Penal Code, ----- . **1860**
- 30-Forest Act, ----- . **1927**

- 31-The Cutting of Trees (Prohibition) Act, -----. **1992**
- 32-The Wild Birds and Animals Protection Act, -----. **1912**
- 33-The Prevention of Cruelty to Animals Act,-----. **1890**
- 34----- is a binding formal agreement, contract, or other written instrument that establishes obligations between two or more subjects of international law. **Treaty**
- 35-CITES -----. **1973**
- 36----- is about the conservation and wise use of different biological resources (plants and animals). **Convention on Biological Diversity (CBD)**
- 37-The protocol was adopted on 29 October 2010 in ----- Japan. **Nagoya**
- 38-Cartagena protocol was adopted on June 20 01 in ----- Cartagena, **Spain**
- 39----- legislation is in place in countries worldwide restricting the import of non and animal pathogens. **Quarantine**
- 40-Animal and plant quarantine programs are intended to protect agriculture from the threat of entry of ----- organisms. **exotic hazardous**
- 41-A ----- means the international Plant protection Convention, 1951. **protocol**
- 42----- includes all agricultural and horticultural crops and all trees, bushes, grass or plants. **Crop**
- 43-The Plant Genetic Resources Program (PGRP) is the main National Program that is functioning for overall management of ----- **PGRs**

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