**Question Bank:**

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| **S. NO** | **MCQ** | **Instructions** |  |  |
|  |  | Choose the correct statement regarding pure line |  |  |
|  | Progeny of a single homozygous self-pollinated plant | Yes  |  |
|  | Progeny of a single homozygous asexually propagated plant |  |  |
|  | Progeny of a single homozygous cross-pollinated plant |  |  |
|  | Progeny obtained by continuous inbreeding |  |  |
|  |  | According to N. I. Vavilo, which is/are correct statement regarding center of origin |  |  |
|  | Eight main centre and three sub-centre |  |  |
|  | China centre of origin is largest and oldest |  |  |
|  | Hindustan centre of origin is considered as the centre of origin of rice |  |  |
|  | All the above | Yes  |  |
|  |  | What are the undesirable consequences of plant breeding  |  |  |
|  | Yield plateau  | Yes  |  |
|  | Wider adaptability  |  |  |
|  | High yield  |  |  |
|  | Tolerance of new diseases |  |  |
|  |  | Source of submergence tolerance gene in rice is/ are  |  |  |
|  | FR13A | Yes  |  |
|  | Swarna |  |  |
|  | Ranjeet  |  |  |
|  | All the above |  |  |
|  |  | First single cross maize hybrid is/are  |  |  |
|  | Gadag |  |  |
|  | Proteina |  |  |
|  | Paras | Yes  |  |
|  | Shaktiman-1 |  |  |
|  |  | The best example of *ex-situ* conservation is/are |  |  |
|  | National Park |  |  |
|  | Gene sanctuary  |  |  |
|  | Home garden | Yes  |  |
|  | Biosphere reserve |  |  |
|  |  | Choose the incorrect match(s) |  |  |
|  | IITA-Nigeria  |  |  |
|  | CIAT-Colombia  |  |  |
|  | AVRDC-Taiwan  |  |  |
|  | ICARDA-South Korea | Yes  |  |
|  |  | Choose the incorrect one regarding single cross hybrid of maize |  |  |
|  | Highly heterozygous |  |  |
|  | Performance of single cross is higher than double cross |  |  |
|  | Development of single cross required only one parent  | Yes |  |
|  | All the above |  |  |
|  |  | Choose the incorrect statement (s) regarding inbreeding |  |  |
|  | Leads to reduction in vigour |  |  |
|  | Development of pure lines | Yes  |  |
|  | Increases homozygosity |  |  |
|  | Expression of recessive alleles |  |  |
|  |  | The book origin of cultivated plants was written by |  |  |
|  | Sir Otto Frankel |  |  |
|  | Alphonse de Candolle | Yes  |  |
|  | Charles Darwin |  |  |
|  | N. I. Vavilov |  |  |
|  |  | Which gene pool is/ are considered as gene-ocean |  |  |
|  | GP-1 |  |  |
|  | GP-2 |  |  |
|  | GP-3 |  |  |
|  | GP-4 | Yes  |  |
|  |  | Choose the incorrect statement(s) regarding primary centre of diversity |  |  |
|  | Dominated with dominant genes |  |  |
|  | Mainly concerned with wild types |  |  |
|  | Easily cross over | Yes  |  |
|  | All the above |  |  |
|  |  | Art and science of changing heredity of plant to improve their economy utility is/are referred as |  |  |
|  | Plant Selection |  |  |
|  | Plant Breeding | Yes  |  |
|  | Domestication |  |  |
|  | Progeny selection |  |  |
|  |  | Choose the incorrect statement |  |  |
|  | Orthodox seeds do not lose their viability when moisture content goes below 5% |  |  |
|  | Recalcitrant seeds lose their viability when moisture content goes below <12% |  |  |
|  | Recalcitrant seeds lose their viability when moisture content goes below <5% | Yes  |  |
|  | Orthodox seed can be conserved in seed gene bank |  |  |
|  |  | Recently released multiple-stress tolerant rice variety is/are  |  |  |
|  | Swarna Sukha Dhan |  |  |
|  | Swarna Samriddhi Dhan | Yes  |  |
|  | Kau Akshya |  |  |
|  | Telangana Vari 3 |  |  |
|  |  | Choose the incorrect match(s) |  |  |
|  | Single cross- I1 x I2 |  |  |
|  | Double cross- (I1 x I2) x (I3 x I4) |  |  |
|  | Double top cross- OPV x (I1 x I2) |  |  |
|  | Poly cross- OPV x (I1 x I2) | Yes  |  |
|  |  | Which breeding method is/ are not frequently used in maize improvement programme |  |  |
|  | Selection  |  |  |
|  | Hybridization  |  |  |
|  | Mutation  | Yes  |  |
|  | Polyploidy  |  |  |
|  |  | F1 hybrid is  |  |  |
|  | Homozygous and homogeneous |  |  |
|  | Homozygous and heterogeneous |  |  |
|  | Heterozygous and homogeneous | Yes  |  |
|  | Heterozygous and heterogeneous |  |  |
|  |  | Choose the correct statement(s) about multiline |  |  |
|  | Multiline is homozygous and homogeneous |  |  |
|  | Multiline is homozygous and heterogeneous | Yes |  |
|  | Multiline is heterozygous and homogeneous |  |  |
|  | Multiline is heterozygous and heterogeneous |  |  |
|  |  | Which one is the inbreeding tolerance crops |  |  |
|  | Self-pollinated crops | Yes  |  |
|  | Cross-pollinated crops |  |  |
|  | Asexually propagated crops |  |  |
|  | All the above |  |  |
|  |  | Two-line system of hybrid seed production in rice exploit |  |  |
|  | TGMS/ PGMS | Yes |  |
|  | CGMS |  |  |
|  | CMS |  |  |
|  | All the above |  |  |
|  |  | Choose the correct statement(s) |  |  |
|  | A-line is MS line used as female parent in hybrid seed production | Yes |  |
|  | A-line is MS line used as male parent in hybrid seed production |  |  |
|  | R-line is male fertile line used as female parent in hybrid seed production |  |  |
|  | B-line is male fertile line used as female parent in hybrid seed production |  |  |
|  |  | A-line is maintained by  |  |  |
|  | Selfing  |  |  |
|  | Crossing of A-line with B-line | Yes |  |
|  | Crossing of A-line with R-line |  |  |
|  | All the above |  |  |
|  |  | According to monophyletic origin of rice the common progenitor of rice is  |  |  |
|  | *Oryza nivara* |  |  |
|  | *Oryza longistaminata* |  |  |
|  | *Oryza perennis* | Yes  |  |
|  | *Oryza barthii* |  |  |
|  |  | Rice variety which has been developed by Induced mutation is/are |  |  |
|  | APHR – 1 |  |  |
|  | Jagannath | Yes  |  |
|  | GEB 24 |  |  |
|  | Ponni (Mashuri) |  |  |
|  |  | What are the patterns of evaluation in crop plants |  |  |
|  | Mendelian variation |  |  |
|  | Polyploidy  |  |  |
|  | Mutation  |  |  |
|  | All the above | Yes  |  |
|  |  | Which one of the following is not a cause of genetic erosion  |  |  |
|  | Developmental activities |  |  |
|  | Improved crop management practices |  |  |
|  | Improved variety  |  |  |
|  | None of the above | Yes  |  |
|  |  | Choose the correct match (s) |  |  |
|  | IITA-Nigeria- Wheat |  |  |
|  | CIAT-Colombia-Sorghum  |  |  |
|  | ICRISAT-India-Groundnut | Yes  |  |
|  | ICARDA-Syria-Maize |  |  |
|  |  | A small area within a centre of diversity which exhibit tremendous amount of genetic diversity of same plant is referred as |  |  |
|  | Gene pool |  |  |
|  | Gene sanctuary  |  |  |
|  | Micro centre | Yes  |  |
|  | Hot spot |  |  |
|  |  | Which is/are incorrect statement regarding maize |  |  |
|  | Cross pollination is due to protandrous flowering behavior |  |  |
|  | Wind is major pollinator |  |  |
|  | Each single tassel produces nearly 25000 pollen grains | Yes  |  |
|  | CMS-T commonly used in hybrid seed production |  |  |