PREVIOUS YEAR QUESTIONS PAPERS

IARI Ph.D ENTRANCE EXAMS- 2003
General Agriculture (Memory based)

1. Nationalization of banks was in the year
   (A) 1955  (B) 1969  (C) 1971  (D) 1982
2. Livestock loan is a
   (A) Short Term  (B) Medium term  (C) Long term  (D) None
3. Correlation co-efficient is independent of
   (A) Origin  (B) Scale  (C) Both  (D) None
4. Accept when null hypothesis is false
   (A) Type 1 error  (B) Type II error  (C) Both  (D) None
5. Richmond Lang effect is associated with
   (A) Auxin  (B) GA  (C) Cytokynin  (D) Ethylene
6. The soil pH range in which most of the nutrients are available
   (A) 6-7  (B) 7.5-8.5  (C) 6.5-7.5  (D) 5-7
7. Pahala blight of sugarcane is due to the deficiency of
   (A) B  (B) Zn  (C) Mg  (D) Mn
8. In nitrification process ammonium is converted to nitrite by
   (A) Pseudomonas  (B) Nitrobacter  (C) Nitrosomonas  (D) Both b & c
9. Red soils mainly come under the order
   (A) Aridisol  (B) Entisol  (C) Alfisol  (D) Ultisol
10. Central Agmark Laboratory is located at
    (A) Mumbai  (B) Pune  (C) Nagpur  (D) New Delhi
11. Buffer stock is maintained by
    (A) FCI  (B) DMI  (C) Agmark  (D) NABARD
12. The Chairman of National Commission for Farmers
    (A) M.S. Swaminathan  (B) Sharad Pawar  (C) Sompal  (D) Mangala Rai
13. Who discovered Bordaux Mixture?
14. First discovered bacterial disease of plants
   (A) Fire blight   (B) Downy mildew
   (C) Chestnut blight   (D) Late blight

15. Alternate host of  P. graminis tritici  is
   (A) Berberis   (B) Prusiner
   (C) D’Herelle   (D) Biener

16. Organic matter generally contains.................% organic carbon
   (A) 50   (B) 1.724
   (C) 48   (D) 58

17. % of nitrogen in urea
   (A) 20.6   (B) 40
   (C) 41   (D) 46

18. Mousam Bhavan is located at
   (A) Bombay   (B) Pune
   (C) Calcutta   (D) New Delhi

19. Which among the following is a herbicide?
   (A) Imidacloprid   (B) Glyphosate
   (C) Bavistin   (D) Hexaconazole

20. TRYSEM was introduced in the year
   (A) 1989   (B) 1978
   (C) 1982   (D) 1979

21. High yielding variety program was launched in
   (A) 1955   (B) 1960
   (C) 1965   (D) 1970

22. The Chairman of national development of council in India
   (A) President   (B) Prime Minister
   (C) Finance Minister   (D) Rural Development Minister

23. NARP was launched by
   (A) ICAR in 1976   (B) Govt. of India in 1976
   (C) ICAR in 1979   (D) Govt. of India in 1979

24. Director General, ICAR
   (A) Dr. Mangla Ray   (B) R.S. Paroda
   (C) Sharad Pawar   (D) S. Nagarajan

25. Largest state in India
   (A) Rajasthan   (B) MP
   (C) UP   (D) AP

26. Father of hybrid rice
   (A) Y.L. Ping   (B) B.P. Paul
   (C) Maheswari   (D) Barber

27. A day neutral plant is
   (A) Maize   (B) Wheat
   (C) Barley   (D) Rice

28. Famous Indian pathologist, extensively studied about cereal rust
(A) K. C. Mehta (B) Sadasivan
(C) Flor (D) None

29. Grey speck of oat is due to the deficiency of
   (A) Fe (B) Mg
   (C) Mn (D) Mo

30. Prominent foul smell of Karnal bunt is due to
   (A) Trienthyl amine (B) Trimethyl amine
   (C) Dimethyl amine (D) None

PROBABLE ANSWER-2003 (Answer is based on given multiple choices on respective year)

1. Prominent foul smell of Karnal bunt is due to
   (A) Triethyl amine (B) Trimethyl amine
   (C) Dimethyl amine (D) None
2. The most important process in chemical weathering
   (A) Hydration (B) Hydrolysis
   (C) Oxidation (D) Carbonation
3. Vector of leaf curl disease of cotton and tobacco
   (A) Myzus persicae (B) Aphis gossypii
   (C) Bemesia tabaci (D) Thrips tabaci
4. Vector of tomato spotted wilt
   (A) Myzus persicae (B) Aphis gossypii
   (C) Bemesia tabaci (D) Thrips tabaci
5. The level to which given pest population should be reduced to achieve the point
   where marginal revenue just exceeds marginal cost
   (A) EIL (B) ETL
   (C) GEP (D) DB
6. Reagent used for the extraction of phosphorus in alkaline soils
   (A) Bray No.1 (B) Bray No.2
   (C) Olesensreagent (D) Both A & B
7. Pusa delicious is ............... Type of papaya
   (A) Gynecious (B) Gynodiecious
   (C) Both (D) None
8. The first insect resistant variety ‘under hill’ is related to
   (A) Apple (B) Rice
   (C) Wheat (D) Peach
9. Odomos the mosquito repellent contains
   (A) Pyrithrin (B) Camphor oil
   (C) Citronella Oil (D) Neem oil
10. Based on Severity of damage Wheat pests which have been ranked in the order
    (A) Brown rust >Loss smut>Termites>Karnal bunt
    (B) Termites>Brown rust>Karnal bunt>Loos smut
    (C) Brown rust>termites>karnal bunt>Loos smut
    (D) Karnal bunt>Loos smut>Termites>Brown rust
11. India has monopoly in the production of
    (A) Mulberry silk (B) Tassar silk
    (C) Eri Silk (D) Muga silk
12. The pest which is a result feature and confined to a particular locality
    (A) Epidemic (B) Endamic
    (C) Seasonal (D) Sporadic
13. Bundle sheath chloroplast
14. High auxin and low cytokinin favours………
(A) Root  
(B) Shoot  
(C) Bud  
(D) Flower

15. Presursor of ethylene
(A) Tryptophan  
(B) Ethane  
(C) Ethionine  
(D) Methionine

16. Kraz anatomy is seen in
(A) Rice  
(B) Amaranthus  
(C) Pineapple  
(D) B & C

17. An international pest?
(A) Helicoverpa  
(B) Spodoptera  
(C) Schistocera  
(D) Pectinophora

18. Carbohydrate factory of cell is
(A) Golgi body  
(B) Chloroplast  
(C) Cytosol  
(D) Peroxisome

19. In photorespiration NH₃ evolution take place at
(A) Mitochondria  
(B) Chloroplast  
(C) Cytosol  
(D) Nucleolus

20. Organelles involved in photorespiration
(A) Chloroplast, Mitochondria, Peroxisome  
(B) Chloroplast, Mitochondria, Glyoxysome  
(C) Mitochondria, Peroxisome, Glyoxysome  
(D) Mitochondria and Chloroplast only

21. Which one is a total root parasite
(A) Custuta  
(B) Loranthus  
(C) Santalum  
(D) Rafflesia

22. Particle size of colloids is (in microns)
(A) < 2  
(B) 1-100  
(C) >100  
(D) None

23. Term genetics was coined by
(A) Johnson  
(B) Batson  
(C) Punnet  
(D) Morgan

24. Components of prokaryotic ribosome are
(A) 50s & 20s  
(B) 40s & 30s  
(C) 60s & 40s  
(D) 50s & 30s

25. Plasma membrane is
(A) Permeable  
(B) Non permeable  
(C) Selectively permeable  
(D) Partially permeable

26. ABO blood group is an example of
(A) Multiple alleles  
(B) Linkage  
(C) Pleotropy  
(D) Over dominance

27. .................. is a sex limited character
(A) Colour blindness  
(B) Hemophilia
28. The most common form of DNA is
   (A) A DNA  (B) B DNA
   (C) C DNA  (D) Z DNA

29. Replication of DNA is
   (A) Semi conservative  (B) Dispersive
   (C) Continous  (D) Conservative

30. ........... is the first cotton hybrid
   (A) Varalakshmai  (B) H4
   (C) Varuna  (D) Jayalakshmi
IARI Ph.D ENTRANCE EXAMS- 2005
General Agriculture (Memory based)

1. The net cultivated area in India is
   (A) 150 mha  (B) 143 mha
   (C) 180 mha  (D) 328 mha

2. The Wheat and Maize Improvement Centre is located at
   (A) Karnal  (B) USA
   (C) Philippines  (D) Mexico

3. In cereals, grain starch is consists of
   (A) Amylopectin  (B) Amylase
   (C) Both a and b  (D) Galactose

4. The National Agricultural Insurance Scheme was started in
   (A) 1999-2000  (B) 2002-2003
   (C) 2003-2004  (D) 2001-2002

5. Loose smut disease of wheat is a/an
   (A) Air born  (B) Soil born
   (C) Water born  (D) Seed born

6. Flaver Savr is a variety of
   (A) Potato  (B) Tomato
   (C) Brinjal  (D) Rice

7. Cotton leaf curl virus is transmitted by
   (A) White fly  (B) Aphid
   (C) Leaf hopper  (D) Jassid

8. The region in India where boron deficiency is mostly occurs
   (A) Coastal region  (B) Central region
   (C) Southern region  (D) NW region

9. The brown box dots on food package indicates
   (A) Egg product  (B) Pure vegetarian product
   (C) Meat and animal produce product  (D) Organically produce product

10. The first DG of ICAR was
    (A) Dr.R.S. Paroda  (B) Dr. M. S. Swaminatan
        (C) Dr. B.P. Pal  (D) Dr. Mangla Rai

11. Land resources in India as a whole world is
    (A) 2%  (B) 10%
        (C) 12%  (D) 16%

12. The soil order vertisol is related to
    (A) Red soil  (B) Black soil
        (C) Alluvial soil  (D) Laterite soil

13. Which of the following transgenic crop has maximum cultivated area in the world
    (A) Soybean  (B) Rice
        (C) Cotton  (D) Maize

14. The estimate food grain production during 2004-05 as per economic survey is
15. Which state has a maximum area in fruit production?
   (A) Gujarat  (B) U.P.  (C) M.P.  (D) Maharashtra

16. The statistical test used to determine the goodness of fit is
   (A) Z-test  (B) F-test  (C) t-test  (D) Chi-square test

17. The cartigen quato protocol for agriculture product was came in the year of
   (A) 2004  (B) 2003  (C) 2005  (D) 1998

18. The citrus canker disease of lemon was introduced in India from
   (A) Mexico  (B) USA  (C) Japan  (D) Argentina

19. The organization related to export of agricultural processed product is
   (A) APARI  (B) NABARD  (C) CACP  (D) APEDA

20. Utera cultivation is practiced mainly in
   (A) Chhattisgarh  (B) M.P.  (C) Uttaranchal  (D) Bihar

21. In the pulse crops, which fertilizer is advised to basal application?
   (A) SSP  (B) Urea  (C) DAP  (D) CAN

22. Which one of the following is not a green house gas?
   (A) N$_2$  (B) N$_2$O  (C) CO$_2$  (D) O$_3$

23. The agricultural and allied commodity has maximum contribution to GDP
   (A) Wheat  (B) Rice  (C) Milk  (D) Sorghum

24. The contribution of agriculture in GDP is
   (A) 23%  (B) 40%  (C) 60%  (D) 30%

25. The soil amendment mainly used for reclamation of sodic (alkali) soil is
   (A) Lime  (B) Pressmud  (C) Gypsum  (D) Pyrites

26. The political personality who got Norman Borlaug award
   (A) J.L. Nehru  (B) Lal Bahadur Shastri  (C) C. Subramanium  (D) Sharad Pawar

27. The biogas has major content with CO$_2$ is
   (A) CO  (B) CH$_4$  (C) N$_2$  (D) C$_2$H$_2$

28. IVLP stands for
   (A) Institute Village Linkage Project  (B) Integrated Village Linkage Programme
     (C) Integrated Village Linkage Project  (D) Institute Village Linkage Programme

29. The most common method of hybridization for wheat is
30. Hatch and slack pathway is found in
(A) Maize  (B) Wheat  
(C) Rice    (D) Soybean
1. Alternate host of *P. graminis tritici* is
   (A) Berberis            (B) Prusiner
   (C) D’Herelle           (D) Biener

2. TRYSEM was introduced in the year
   (A) 1989                (B) 1978
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3. First discovered bacterial disease of plants
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4. A day neutral plant is
   (A) Maize                (B) Wheat
   (C) Barley               (D) Rice

5. An international pest?
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6. Term genetics was coined by
   (A) Johnson              (B) Batson
   (C) Punnet               (D) Morgan

7. The most common form of DNA is
   (A) A DNA                (B) B DNA
   (C) C DNA                (D) Z DNA

8. Whip tail of cauliflower is the deficiency of
   (A) B                    (B) Ca
   (C) Mo                   (D) Mn

9. NRC for orchids is at
   (A) Cochin               (B) Gangtok
   (C) Bangalore            (D) Pune

10. Which represents median?
    (A) Second quartile     (B) 5th deciles
    (C) 50th percentile     (D) All

11. The relation between AM, GM, HM
    (A) AM>GM>HM            (B) GM>HM>AM
    (C) GM<HM<AM           (D) Any one

12. Which one is the Indian Sugarcane?
    (A) Sachcharum officinarum         (B) S. Spontaneum
    (C) S. Barberea                 (D) S. Spondium

13. Concentration of carbon dioxide in Atmosphere
    (A) 330 ppm                (B) 350 ppm
    (C) 370 ppm                (D) 400 ppm
14. Which one is macroni wheat?
   (A) *T. Dicoccum*  (B) *T. aestivum*  
   (C) *T. Vulgare*  (D) *T. Durum*

15. In Rice crop which biofertilizer is commonly used
   (A) Azatovacter  (B) Azospirillum  
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   (C) Yellow stem borer  (D) Leaf Roller

18. Silver shoot is due to
   (A) Rice Hispa  (B) Gall Midge  
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19. Loose smut of wheat is
   (A) Extemary seed born  (B) Soil born  
   (C) Internary seeed born  (D) All

20. Polymer of different mono saccharides is termed as
   (A) Muco polysaccharide  (B) Homo poly saccharides  
   (C) Hetro polysaccharides  (D) Oligo poly saccharides

21. Which of the following sequence of minerals is correct as per their degree of decreasing weathering resistance?
   (A) Muscovite<Gypsum<Olivine<Quartz  
   (B) Olivine<Muscovite<Gypsum<Quartz  
   (C) Gypsum<Olivine<Muscovite<Quartz  (D) Quartz<Muscovite<Gypsum<Olivine

22. Vitamin B₁₂ contains
   (A) Mo  (B) Co  
   (C) Cu  (D) Ca

23. KVK was started in
   (A) 1975  (B) 1974  
   (C) 1979  (D) 1970

24. .......... is the only carbohydrate of animal origin in man’s food supply is
   (A) Sucrose  (B) Lactose  
   (C) Glucose  (D) Glycogen

25. Molya disease is caused due to
   (A) Fungi  (B) Bacteria  
   (C) Mycoplasma  (D) Nematode

26. The statistical test used to determine the goodness of fit is
   (A) Z-test  (B) F-test  
   (C) t- test  (D) Chi- square test

27. The cartigen quato protocol for agriculture product was came in the year of
   (A) 2004  (B) 2003  
   (C) 2005  (D) 1998
28. Components of prokaryotic ribosome are
   (A) 50s & 20s  (B) 40s & 30s
   (C) 60s & 40s  (D) 50s & 30s

29. Plasma membrane is
   (A) Permeable  (B) Non permeable
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30. Pahala blight of sugarcane is due to the deficiency of
   (A) B  (B) Zn
   (C) Mg  (D) Mn

By: Roop Singh Maitry, ARS-2010, Ph. D, I.A.R.I., New Delhi-12  (roop.iari@gmail.com)
IARI Ph.D ENTRANCE EXAMS- 2007
General Agriculture (Memory based)

1. How many member countries there in WTO from initial to till January, 2007
   (A) 149  (B) 150
   (C) 145  (D) 190
2. Random or free segregation of chromosomes and genes during gamete formation is known as
   (A) Incomplete dominance  (B) Law of independent assortment
   (C) Law of purity of gametes  (D) Law of segregation
3. OBA blood group controlled by
   (A) Pseudo allele  (B) Dominant allele
   (C) Recessive allele  (D) Multiple allele
4. Citrus canker is caused by
   (A) Bacteria  (B) fungi
   (C) Nematodes  (D) Algae
5. Which one is not a monosaccharide in nature?
   (A) Lactose  (B) Galactose
   (C) Glucose  (D) Ribulose
6. Availability of which form of P is highest at pH 6.7
   (A) $H_2PO_4^-$  (B) $HPO_4^{2-}$
   (C) $PO_4^{3-}$  (D) None
7. Conservation tillage saves
   (A) Soil  (B) Moisture
   (C) Time  (D) All
8. Nobel Prize for micro credit was given to
   (A) Mohammad Yunus  (B) N.E. Borlauge
   (C) V.S Naipaul  (D) None of these
9. Which is formula of leaf area index?
   (A) Leaf area / ground area  (B) Leaf area / leaf dry weight
   (C) Ground area/ leaf area  (D) Leaf area / area duration
10. Pureline theory was given by
    (A) Bateson  (B) Johnsen
    (C) Lamarck  (D) Wolf
11. Exanthema disease is caused by deficiency of
    (A) MN  (B) Zn
    (C) Fe  (D) Cu
12. Contribution of animal husbandry in agriculture GDP is
    (A) 17%  (B) 27%
    (C) 37%  (D) 47%
13. In which type of soil low permeability is present
    (A) Alkali  (B) Saline
14. Which is a P solubilizing bacterium?
(A) PSB (B) VAM
(C) Clostridium (D) Azotobacter

15. Which is natural genetic engineer?
(A) Xanthomonas citri (B) Agrobacterium tumifacience
(C) Azotobacter (D) Clostridium

16. In maize first product formed during photosynthesis is
(A) Oxalic acid (B) Malic acid
(C) PGA (D) Aspartic acid

17. Which amino acid is positively charged?
(A) Aspartate (B) Lysine
(C) Methionine (D) Glycine

18. Translocation of nutrient and water through xylem is due to
(A) Suction (B) Bundle sheath cell
(C) Transpiration pulls (D) Guard cell

19. Who was the chairman of Farmer’s Commission till December, 2006
(A) V.L. Chopra (B) R. S. Paroda
(C) M.S. Swaminathan (D) Sompal Shastri

20. Which instrument used for land levelling
(A) Pusa leveller (B) Laser leveller
(C) Bhopal leveller (D) None of these

21. Water held between 1/3 bar to 31 bars in the soil is classified as
(A) Gravitational water (B) Capillary water
(C) Hygroscopic water (D) Available water

22. Chloropyriphos belongs to which group
(A) Chlorinated hydrocarbons (B) Carbamates
(C) Organophosphate (D) Synthetic pyrethroides

23. Why rice grown easily under submerged condition
(A) Deep root system (B) O₂ transfer from stem to root
(C) Hydroponic in nature (D) None of these

24. What is critical difference?
(A) Standard error of difference (B) standard error of mean
(C) SEm x t value at e.d.f. (D) SEm x \( \sqrt{2} \) x t value at e.d.f.

25. Global warming potential of methane (CH₄) in composition to CO₂ is ____ (times)
(A) 1 (B) 310
(C) 21 (D) 4,000

26. Father of hybrid rice
(A) Y.L. Ping (B) B.P. Paul
(C) Maheswari (D) Barber

27. A day neutral plant is
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28. Famous Indian pathologist, extensively studied about cereal rust
29. Which represents median?
(A) Second quartile  (B) 5th deciles
(C) 50th percentile  (D) All

30. The relation between AM, GM, HM
(A) AM>GM>HM  (B) GM>HM>AM
(C) GM<HM<AM  (D) Any one

PROBABLE ANSWER-2007 (Answer is based on given multiple choices on respective year )

By: Roop Singh Maitry, ARS-2010, Ph. D, I.A.R.I., New Delhi-12  (roop.iari@gmail.com)
1. Which one is not measure of dispersion?
   (A) Range   (B) Standard deviation
   (C) Mean   (D) Coefficient of variance
2. Ear cockle disease is due to
   (A) Heterodera avenae   (B) Ditylenchus angustus
   (C) Anguina tritici   (D) Meloidogyne incognita
3. Support price fixed on the recommendation of
   (A) NAFED   (B) CACP
   (C) Ministry of Agriculture   (D) CCI
4. Vitamin B₁ is also known as
   (A) Thiamin   (B) Calciferol
   (C) Retinol   (D) Riboflavin
5. Price fixed by government recently for agricultural products
   (A) Minimum support price   (B) Retail price
   (C) Wholesale price   (D) Procurement price
6. If farmer has only one irrigation is available for wheat crop, at which stage it is recommended
   (A) CRI   (B) Booting stage
   (C) Tillering stage   (D) Milking stage
7. Which of the following is not bio-control agent?
   (A) Pseudomonas   (B) Bt
   (C) Xanthomonas   (D) Trichogramma
8. Which of the following is complex fertilizer?
   (A) Potassium sulphate   (B) Urea ammonium Phosphate
   (C) Ammonium sulphate   (D) Calcium ammonium Nitrate
9. IVLP stands for
   (A) Integrated Village Linkage Programme
   (B) Institute Village Linkage Programme
   (C) Intensive Village Linkage Programme
   (D) Indian Village Linkage Programme
10. In which type of soil low permeability is present
    (A) Alkali   (B) Saline
    (C) Acidic   (D) None
11. Which is a P solubilizing bacterium?
    (A) PSB   (B) VAM
    (C) Clostridium   (D) Azotobacter
12. Which is natural genetic engineer?
    (A) Xanthomonas citri   (B) Agrobacterium tumifaciense
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16. Which one is macroni wheat?
(A) T. Dicocum (B) T. aestirum
(C) T. Vulgare (D) T. Durum

17. In Rice crop which biofertilizer is commonly used
(A) Azatovacter (B) Azospirillum
(C) Azolla (D) Frankia

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(A) SSP (B) Urea
(C) DAP (D) CAN

26. Which one of the following is not a green house gas?
(A) N2 (B) N2O
(C) CO2 (D) O3

27. The contribution of agriculture in GDP is
(A) 23% (B) 40%
(C) 60% (D) 30%

28. The National Agricultural Insurance Scheme was started in
29. Loose smut disease of wheat is a/an
(A) Air born (B) Soil born
(C) Water born (D) Seed born

30. Flaver Savr is a variety of
(A) Potato (B) Tomato
(C) Brinjal (D) Rice

PROBABLE ANSWER-2008 (Answer is based on given multiple choices on respective year)

IARI Ph.D ENTRANCE EXAMS- 2009
General Agriculture (Memory based)

1. Highest procurement of wheat in 2009 was________Million tonne
   (A) 12 (B) 17.8
   (C) 20.9 (D) 59.9

2. Contribution of agriculture to GDP is
   (A) 12% (B) 22
   (C) 30 (D) 40

3. IVLP stands for
   (A) Integrated Village Linkage Programme
   (B) Institute Village Linkage Programme
   (C) Intensive Village Linkage Programme
   (D) Indian Village Linkage Programme

4. Which one of these is major constituent of poultry feed?
   (A) Rice (B) Wheat
   (C) Maize (D) Sorghum

5. In binomial distribution
   (A) Mean > variance (B) Mean< Variance
   (C) Mean= Variance (D) Mean >Variance

6. Bordeaux mixture is
   (A) Insecticide (B) Pesticide
   (C) Fungicide (D) Herbicide

7. Which of the following is used to turn over the soil?
   (A) Khurpi (B) Harrowing
   (C) Desi plough (D) Mould bould plough

8. NBFGH-National Bureau for Fish Genetic Resource is situated at
   (A) Mumbai (B) Lucknow
   (C) Cochin (D) Kolkata

9. Which of the following is not bio-control agent?
   (A) Pseudomonas (B) Bt
   (C) Xanthomonas (D) Trichogramma

10. Which of the following is complex fertilizer?
    (A) Potassium sulphate (B) Urea ammonium Phosphate
    (C) Ammonium sulphate (D) Calcium ammonium Nitrate

11. Soil having ESP (Exchangeable Sodium Percentage) greater than 15 are
    (A) Saline soils (B) Alkali soil
    (C) Acid soils (D) None of these

12. Rain, mist, fog and cloud all these phenomena occurs in
    (A) Troposphere (B) Stratosphere
    (C) Ionosphere (D) Mesosphere

13. Farming system is
    (A) Cropping system (B) Cropping pattern
14. Which nutrient helps in Biological Nitrogen Fixation?
   (A) N  (B) P  (C) Mo  (D) B

15. Silt is intermediate between
   (A) Sand and clay  (B) Clay loam and clay
   (C) Loam and clay  (D) None of these

16. First CO₂ acceptor in C-3 pathway
   (A) RuBP carboxylase  (B) PEP carboxylase
   (C) PEP decarboxylase  (D) Proteinase

17. From 1960’s onward which of the following operation is in effect for milk?
   (A) Operation flood  (B) Green revolution
   (C) Yellow revolution  (D) None of these

18. CIMMYT works on
   (A) Rice and wheat  (B) Maize and wheat
   (C) Wheat  (D) Rice and maize

19. Which of the following is highly salt tolerant fruit crop?
   (A) Date palm  (B) Mango
   (C) Apple  (D) Citrus

20. Price fixed by government recently for agricultural products
   (A) Minimum support price  (B) Retail price
   (C) Wholesale price  (D) Procurement price

21. If farmer has only one irrigation is available for wheat crop, at which stage it is recommended
   (A) CRI  (B) Booting stage
   (C) Tillering stage  (D) Milking stage

22. Disease occurring regularly in the same area is called as
   (A) Sporadic  (B) Endemic
   (C) Epidemic  (D) None of these

23. Which of the following is essential component of nucleic acid and protein?
   (A) N  (B) P
   (C) S  (D) Mg

24. Widely cultivated wheat species in India after T. durum
   (A) T. diococcum  (B) T. monococcum
   (C) T. speltoids  (D) Aegilops squarrosa

25. Banana is
   (A) Autotriploid  (B) Autotetraploid
   (C) Allotriploid  (D) Allotetraploid

26. Which crop in India has maximum area under irrigation?
   (A) Rice  (B) Wheat
   (C) Cotton  (D) Maize

27. Which of the following is not found in plant cell?
   (A) Starch  (B) Glucose
   (C) Glycogen  (D) Fructose

28. Family of cotton is
29. Certified seed is produced from
   (A) Breeder seed  (B) Nucleus seed
   (C) Foundation seed (D) Truthful seed

30. In prophase which is correct
   (A) Elongated threads like chromosome
   (B) Darkly stained shorter chromosome
   (C) Chromatics are more condensed
   (D) Pairing of the chromosome
IARI Ph.D ENTRANCE EXAMS- 2010
General Agriculture (Memory based)

1. Study of fresh water is called
   (A) Limnology (B) Sinecology
   (C) Hydrology (D) Hydrometeorology

2. The GM crops has highest area in order of preference
   (A) Insecticide then herbicide resistance (B) Herbicide then Insecticide resistance
   (C) Insecticide then virus resistance (D) Herbicide then viroids resistance

3. “AADHAAR” indicates
   (A) Unique Identification card (B) FCI buffer stock
   (C) Maximum Support Price (D) Commission on Agriculture Cost and Price

4. Artificial bacteria culture is developed by
   (A) Dr. Kraig Ventor (B) Dr. Beijirinkia
   (C) Dr. Jenial James (D) Dr. Lewis Pasture

5. Blue tag in insecticide is for indication of
   (A) High toxicity (B) Toxicity free
   (C) Moderate toxicity (D) Slight toxicity

6. Which one is Indian origin fruit crop?
   (A) Jackfruit (B) Ber
   (C) Sapota (D) Mango

7. For virus free seed use
   (A) Meristem tip (B) Root tip
   (C) Leaf tip (D) Shoot tip

8. Legume crop is recommended NPK dose of
   (A) 4:2:1 (B) 1:2:2
   (C) 4:2:2 (D) 1:2:4

9. Which variety of rice is known for longest seed length?
   (A) Pusa-1121 (B) Pusa-2212
   (C) IR-36 (D) Jaya

10. Which one is neutral fertilizer?
    (A) CAN (B) Urea
    (C) DAP (D) SSP

11. Calculate the amount of urea for applying 50 kg N2
    (A) 100 kg (B) 109 kg
    (C) 50 kg (D) 119 kg

12. ELISA test is used to detecting
    (A) Insect (B) Virus
    (C) Nematodes (D) Fungi

13. Common bee species cultivated worldwide is
    (A) Apis flora (B) Apis dorsata
    (C) Apis cerana indica (D) Apis melifera
14. Murate of Potash is also known as
   (A) HCl (B) NaCl
   (C) KCl (D) NH4Cl
15. Which organelle is involved in root gravity pool?
   (A) Amyloplast (B) Mitochondria
   (C) Nucleus (D) Chloroplast
16. White bud of maize is due to
   (A) Mn (B) Zn
   (C) Cu (D) Mo
17. Mobility stage of seed is due to
   (A) ABA (B) GA
   (C) IAA (D) Ethylene
18. For which crop Genome is not sequenced
   (A) Papaya (B) Mango
   (C) Sapota (D) Rice
19. GDP of agriculture in 2008-09 at constant rate of 2004-05
   (A) 17.1 % (B) 22%
   (C) 10 % (D) 26%
20. Current rate of fertilizer consumption in India is
   (A) 128 kg/ha (B) 148 kg/ha
   (C) 138 kg/ha (D) 158 kg/ha
21. Area under transgenic crop in India, 2008-09
   (A) 8.4 Mha (B) 4.4 Mha
   (C) 2.4 Mha (D) 10.4 Mha
22. Which one is not measure of central tendency?
   (A) Mean (B) Median
   (C) Mode (D) Mean deviation
23. Which one is not measure of dispersion?
   (A) Range (B) Standard deviation
   (C) Mean (D) Coefficient of variance
24. Ear cockle disease is due to
   (A) *Heterodera avenae* (B) *Ditylenchus angustus*
   (C) *Anguina tritici* (D) *Meloidogyne inocognita*
25. Support price fixed on the recommendation of
   (A) NAFED (B) CACP
   (C) Ministry of Agriculture (D) CCI
26. The correlation coefficient will be negative when
   (A) x increase and y decrease (B) x decrease and y increase
   (C) x increase and y increase (D) x decrease and y decrease
27. Phalaris minor of what crop controlled by
   (A) 2, 4-D (B) Metrabuzin
   (C) Pendemethlin (D) Atrazine
28. Crops Grown on between two main crops is called
   (A) Intercrops (B) Row crops
   (C) Trap crops (D) Mixed crops
29. Which one is the source variety of resistant for stem borer, BLB and Blast of rice
   (A) IR 22  (B) IR 36
   (C) IR 24  (D) Pusa Basmati
30. Vitamin B$_1$ is also known as
   (A) Thiamin       (B) Calciferol
   (C) Retinol       (D) Riboflavin

PROBABLE ANSWER-2010 (Answer is based on given multiple choices on respective year)

Analysis on questions asking pattern for IARI Ph. D entrance exams (General Agriculture)

With the analysis of 10 year question paper on General Agriculture asked in examination of IARI Ph.D Entrance, following results and interpretation has been made.

1) The General Agriculture asked in examination of IARI Ph.D Entrance includes three types of questions **BASIC-Normal** (these includes the very basic knowledge on agriculture and can be solve by almost 90 % of competitors), **BASIC-Advances** (it includes the advance knowledge on basics of agriculture and can be solve by almost 50 % of competitors) and **Pure Advances** (these questions are being newly introduced and have taken first time in exam, these includes advance knowledge on general agriculture and it test the competitor’s awareness on current and advance facts of agriculture. It actually determines the scoring marks for admission in IARI. If you are able to solve at least 50% of these type of question along with full of BASIC-Normal and BASIC-Advances types of questions, it is almost assure to get admission in IARI on the basis of General Agriculture).

2) It is found that the percentages of these three types of questions are approximately fixed for each year. But in some year, there is an abrupt change in the question asking pattern. An analysis has made to test the change in the question asking pattern and the result are explained by following graph (Fig. 1). The graph shows the percentages of the Pure Advances types of question is approximately increasing every year. So, the facts say the keeping Advance knowledge on agriculture facts is much helpful to get command in General Agriculture part of IARI Ph. D exam. And thus, these are helpful in admissions.