1.		ficiency of which of the following urbs the vision capacity?
	(A)	Thiamin
	(B)	Retinol
	(C)	Ascorbic acid
	(D)	Tocoferol
2.		ch one of the following hormones ses leaf senescence and aging?
	(A)	GA
	(B)	IAA
	(C)	BA
	(D)	ABA
3.	Tryp	tophane is precursor to synthesis of
	(A)	IAA
	(B)	NAA
	(C)	MH
	(D)	Ethylene
	Hydr	olysis of fat is catalysed by:
	(A) ·	Hydrolase
	(B)	Catalase
	(C)	Amylase
	(D)	Lipase

5.	Nationalization of bank was initiated in				
	(A)	1972			
	(B)	1969			

- 6. Source-> Transmitter-> Signal-> Receiver-> Destination is which method of communication?
  - (A) Berlo model

(C) 1992

(D) 2004

- (B) Fano model
- (C) Lasswell model
- (D) / Shannon and weaver model
- 7. Father of extension education in India was?
  - (A) K. N. Singh
  - (B) James Stuart ⋠
  - (C) J. P. Leagans
  - (D) Seaman A. Knapp
- 8. National Bank for Agriculture and Rural Development is an apex development finance institution?
  - (A) Owned by State Govt. + Central Govt. of India
  - (B) Fully owned by Central Government of India
  - (C) State Govt. + Central Govt. + Private banks
  - (D) Fully owned by State Govt.

- 9. Which of the following is a farm agency?
  - (A) FCI
  - (B) Agro service center
  - (C) IFFCO
  - (D) Shree Ram Fertilizer
- 10. Result Demonstration is
  - (A) Composite type demonstration or both type
  - (B) Short type demonstration
  - (C) Long type demonstration
  - (D) None of the above
- 11. Extension is :-
  - (A) Two way channel
  - (B) Education for all village people
  - (C) Teaching through learning by doing and seeing is believing
  - (D) All of the above
- 12. It is more useful for making people aware of the new agricultural technology quickly?
  - (A) Mass contact method
  - (B) Group contact method
  - (C) Individual contact method
  - (D) All of these

- 13. Who was the father of cooperative movement in India?
  - (A)/ F. Nicholson
  - (B) Smith
  - (C) Marshall
  - (D) Robins
- 14. In "Perfectly inelastic" demand value of Ep:-
  - (A) Ep = 0
  - (B) Ep = 1
  - (C)  $Ep = \infty$
  - (D) Ep > 0
- 15. Land taxes, annually hired labours come under:
  - (A) Variable cost
  - (B) Fixed cost
  - (C) Marginal cost
  - (D) Implicit cost
- 16. The Agricultural Produce (Grading and Marking) Act; was introduced in
  - (A) 1993
  - (B) 1945
  - (C)/1937
  - (D) 1990

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	(D) Correlation		(D) Belongingness
	(C) Range		(C) SelfActualization
	(B) Standard deviation		(B) Physiological
	(A) Mean deviation		(A) Safety
20.	The variance is the square root of	24.	First level of Maslow's hierarchy pyramid is
	(D) Boddington		(D) Michaelive hypothesis
	(C) A.L. Bowley		<ul><li>(C) Composite hypothesis</li><li>(D) Alternative hypothesis</li></ul>
	(B) Karl Pearson		(B) Null hypothesis
	(A) P.C. Mahalanobis		(A) Simple hypothesis
19.	Who is considered as father of Indian Statistics?	23.	known as
	(D) 1 December, 1955		(D) Bombay
	(C) 17 July, 1945		(C) New Delhi (D) Pomboy
	(B) 5 May, 1990		(B) Jaipur
	(A) 1 April. 1935		(A) Lucknow
18.		22.	Indian Agricultural Statistical Research Institute is established at
	(D) None of these		(D) Time
	(C) Unit elastic		(D) Alfa
	(B) Perfectly inelastic		(B) Gamma (C) Infinity
	(A) Perfectly elastic		(A) Beta
17.	For which graph "Price elasticity" line will be parallel to x-axis:-	21.	

25.	Which of the following is NOT a function of management?	29.	Who recommends the Minimum Support Price?
	(A) Organizing		(A) Ministry of Agriculture and Farmer
	(B) Planning		(B) NABARD
	(C) Verification		(C) Niti Aayog
	(D) Directing		(D) Commission for Agricultural Cost and Prices
26.	A cognitive process resulting in the	30.	NABARD was set up in year:
	selection of a course of action among several alternative scenarios is called as		(A) 1982
	(A) Decision Making		(B) 1965
	(B) Planning		(C) 1998·
	(C) Proofing		(D) 2015
	(D) Recording	31.	Which of the following is the primary sector of the Indian economy?
27.	The process of imparting knowledge in		(A) Information and Technology
	an individual is called		(B) Banking
	(A) Supervision		(C) Agriculture
	(B) Training		(D) Insurance
`	(C) Directing		
	(D) Staffing	32.	If a nation gains from trade, its consumption point is:
			(A) An its production possibility
28.	F.W. Taylor is associated with		frontier (D) Inside its annulus in the second of the secon
	(A) Scientific management		(B) Inside its production possibility frontier
	(B) Future management		(C) Above its production possibility
	(C) Modern management		frontier
	(D) Principles of management		(D) Any of the above
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33.	If the cost of transporting a good between two countries exceeds the pre-trade price difference for the good between the two countries, then trade in that goods is:	36.	Who started agriculture first?  (A) Egyptians
			(B) Chinese
	(A) Possible		(C) Indians.
	(B) Impossible (C) Reversed		(D) Russians
	(c) Reversed		
	(D) Can not say anything		
		37.	The term chalcolithic is applied to communities using implements with-
34.	the least absolute disadvantage represents		(A) Bronze only
	its area of:		(B) Copper only
	(A) Comparative advantage	-	(C) Iron only
	(B) Comparative disadvantage		(D) Bronze and Copper both
	(C) Absolute advantage		
	(D) None of the above		
35.	The word Agriculture is derived from	38.	"Krishi Nirawahi Chatur Kisana" Above line indicating towards weeding is mentioned in:
	(A) Arabi		(A) Shrimad Bhagvad Geeta
(	(B) Greek		(B) Ramayan
(	(C) Latin		(C) Ramcharitmanas

(D) English

(D) Guru Granth Sahib

- 39. Material cost including wages of skilled and semi-skilled workers under MGNREGS is borne by Central and by State Government in the ratio of:-
  - (A) 50:50
  - (B) 90:10



- (D) 25:75
- 40. What basic need does IAY fulfill?
  - (A) Water
  - (B) Housing
  - (C) Food
  - (D) Fertilizer
- 41. Pradhan Mantri Krishi Sinchai Yojana was launched on:
  - (A) 1st May 2014
  - (B) 17<sup>th</sup> July 2019
  - (C) July 2015
  - (D) 5th January 2014

- 42. Pension given under PM Kisan Maandhan Yojana:
  - (A) Rs. 2,000
  - (B) Rs. 3,000
  - (C) Rs. 5,000
  - (D) Rs. 6,000
- 43. What is prime function of ATMA?
  - (A) Research and development
  - (B) Selling technology
  - (C) Helping technology companies
  - (D) Dissemination of technology
- 44. Aim of E-pashuhaat Portal:-
  - (A) To provide animal insurance
  - (B) Improver milk productivity
  - (C) To connect farmers and veterinary doctor for animal health issues
  - (D) To connect breeders and farmers regarding availability of bovine germplasm

<ul> <li>45. Soil information systems serves</li> <li>(A) Basis of technology transfer</li> <li>(B) Aid in decision making level</li> <li>(C) Both (A) and (B)</li> <li>(D) None of these</li> </ul>	<ul> <li>49. Who is the father of Indian nanotechnology?</li> <li>(A) Vijay Rupani</li> <li>(B) C.N.R. Rao</li> <li>(C) P. C. Ray</li> <li>(D) None of these</li> </ul>
<ul> <li>46. Which of the following is soil information system in India?</li> <li>(A) ARS</li> <li>(B) NASIS</li> <li>(C) UMSIS</li> <li>(D) NRIS</li> </ul>	<ul> <li>50. Which of the following is an active factor of soil formation?</li> <li>(A) Parent material</li> <li>(B) Climate</li> <li>(C) Time</li> <li>(D) Relief</li> </ul>
47. Who first used the term nanotechnology?  (A) Sumio Lijima  (B) Norio Taniguchi  (C) Eric Drexler  (D) Richard Feynman	<ul> <li>51. The process of accumulation of materials in B horizons is called</li> <li>(A) Eluviation</li> <li>(B) Carbonation</li> <li>(C) Illuviation</li> <li>(D) Oxidation</li> </ul>
<ul> <li>48. Who launched nanofertilizer in India?</li> <li>(A) Vijay Rupani</li> <li>(B) C.N.R. Rao</li> <li>(C) Heinrich Rohrer</li> <li>(D) P. C. Ray</li> </ul>	<ul> <li>52. The size of silt particles in ISSS system is</li> <li>(A) 2 mm to 0.2 mm</li> <li>(B) 0.2 to 0.02 mm</li> <li>(C) 0.02 to 0.002 mm</li> <li>(D) &lt; 0.002 mm</li> </ul>

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53. The crystal units of montmorillonite are held together by

(A) O-H linkage

- (B) O-O linkage
- (C) H-Bonding
- (D) Covalent bonding
- 54. Which of the following elements has highest concentration in earth's crust?

(A)/Silicon

- (B) Iron
- (C) Magnesium
- (D) Calcium
- 55. Marble contains high quantity of \_\_\_

(A)  $_{1}$  MgCO<sub>3</sub>

- (B) CaCO<sub>3</sub>
- (C) Na<sub>2</sub>CO<sub>3</sub>
- (D)  $K_2CO_3$
- 56. Sticking of two different nature of particles is called
  - (A) Flocculation
  - (B) Cohesion
  - (C) Deflocculating
  - (D) Adhesion

- 57. Nitrification is a process of
  - (A) Biological reduction
  - (B) Biological oxidation
  - (C) Biological carbonation
  - (D) Biological N2\_fixation
- 58. Which of the following soil orders is found in Indo-gangetic plain?
  - (A) Mollisol
  - (B) Vertisol
  - (C) Gellisol
  - (D) Inceptisol
- 59. The maximum water holding capacity occurs at pF value of
  - (A) 1.0

(B) 3.0

- (C) 6.0
- (D) 7.0
- 60. Mycorrhiza is an association of
  - (A) Bacteria and legumes
  - (B) BGA and Azolla
  - (C) Fungi and Algae
  - (D) Fungi and plant root

61	<ul> <li>Medium range of available phosphorus (kg/ha) in soil is:</li> <li>(A) &lt; 10</li> <li>(B) 10-20</li> <li>(C) 20-50</li> <li>(D) &gt; 50</li> </ul>	65.	Deficiency of nitrogen first appears on:  (A) Younger leaves  (B) Older lower leaves  (C) Middle leaves  (D) All of these
62.	Micronutrient which availability is more in alkaline condition:  (A) Fe  (B) Zn  (C) Mn  (D) Mo •	66.	Magnesium is predominantly found in  (A) Mitochondria  (B) Nucleus  (C) Cell wall  (D) Chlorophyll
<b>53.</b>	Plants absorb which form of phosphate ion?  (A) H <sub>2</sub> PO <sub>4</sub> <sup>-</sup> (B) HPO <sub>4</sub> <sup>2-</sup> (C) HPO <sub>4</sub> <sup>2-</sup> and H <sub>2</sub> PO <sub>4</sub> <sup>-</sup> (D) PO <sub>4</sub> <sup>3-</sup>	67.	<ul><li>The Law of Minimum was given by:</li><li>(A) Mitcherlich</li><li>(B) Spillman</li><li>(C) J. V. Liebig</li><li>(D) Thomas Way</li></ul>
1	For accurate nH measurement which of		water of the section

64. For accurate pH measurement, which of the following is often used?

- (A) Pocket pH meter
- (B) Color chart
- (C) pH meter
- (D) Dye solution

- (A) Urea
- (B) Ammonium sulphate
- (C) Ammonium nitrate
- (D) Calcium ammonium nitrate

- 69. Who discovered the control of Khaira disease of rice?
  - (A) Dr. America Singh
  - (B) Dr. Y. L. Nene
  - (C) Dr. P. K. Chakraberty
  - (D) Dr. M. S. Swaminathan
- 70. pH of calcareous soil is:
  - (A) < 7.0
  - (B) < 8.5
  - (C) >10.0
  - (D) >12.0
- 71. The major cation causing flocculating of soil is
  - (A) Na<sup>+</sup>
  - (B) K<sup>+</sup>
  - (C) Ca++
  - (D) Mg++
- 72. Which of the following group of micro organism shows highest influence on soil aggregation?
  - (A) Gym producing bacteria
  - (B) Fungi
  - (C) Streptomyces
  - (D) Yeast

- 73. Neutralizing value of which of the following liming material is highest?
  - (A)  $CaCO_3$
  - (B) CaO
  - CaMg(CO<sub>3</sub>)<sub>2</sub>·
    - (D) CaSiO<sub>2</sub>
- 74. Acid sulphate soils are formed due to:
  - (A) Reduction of sulphate
  - (B) Oxidation of sulphide
  - (C) Evolution of H<sub>2</sub>S
  - (D) Use of ammonium sulphate fertilizers
- 75. Exchangeable sodium percentage of alkali soils is
  - (A) <15
  - (B) >8
  - (C) >15
  - (D) <10
- 76. Submergence of alkaline soil tends to:
  - (A) Increase its pH
  - (B) Decrease its pH of
  - (C) Decrease then increase its pH
  - (D) No any effect

77.	Splash erosion is related to:
	(A) Wind velocity

- (B) Slops steepness(C) Rainfall intensity
- (D) Sheet erosion
- 78. Saline and alkali soils are also called as:
  - (A) Halomorphic soil
  - (B) Hydromorphic soil
  - (C) Chernozem soil
  - (D) Calcimorphic soil
- 79. Gypsum is used for the reclamation of:
  - (A) Acid soil
  - (B) Saline soil
  - (C) Sodic soil
  - (D) Alluvial soil
- **80.** Identify the abiotic factor which results in storage loss of seed.
  - (A) Bacteria
  - (B) Rodents
  - (C) Moisture
  - (D) Mites

- 81. In which year Seed Act was enacted?
  - (A) 1960
  - (B) 1963
  - (C) 1966 •
  - (D) 1969
- 82. Among the following which chemical is furnigant being used during the storage of seed?
  - (A) DDT
  - (B) Formaline
  - (C) Methyl Bromide
  - (D) None of these
- 83. Which category of seed is not produced in India?
  - (A) Breeder seed
  - (B) Certified seed
  - (C) Registered seed
  - (D) Foundation seed
- 84. What should be percent genetic purity of foundation seed?
  - (A) 98
  - (B) 99
  - (C) 99.5
  - (D) 100

85.	What colour of tag is issued by certified seed producing agency?	89.	Crossing of F, with homozygous recessive parent is called		
	(A) /White		(A) Pure Line		
	(B) Blue		(B) Back-Cross		
	(C) Golden	•	(C) Test-Cross		
	(D) No colour tag		(D) Inbred Line		
86.	Wheat and paddy come under what class of seed?	90.	Transmission of characters from parents to offspring through cytoplasmic factors		
	(A) Microbiotic seeds		is called		
	(B) Mesobiotic seeds		(A) Linkage		
	(C) Macrobiotic seeds		(B) Mutation		
	(D) None of these		Carosssing Over		
			(D) Cytoplasmic Inheritance		
	The universally accepted DNA replication model is	91.	91. Tendency of genes to be inherited in		
	(A) Semi-conservative		groups is termed as		
	(B) Conservative		(A) Linkage		
	(C) Dispersive	10	(B) Crossing-over		
	(D) None of the above		(C) Epistasis		
		1	(D) Gene Interaction		
88.	Sudden heritable change in the phenotype of an individual is termed as	92.	Manifold effect of a gene is known as		
	(A) Deletion		(A) Maternal Effect		
	(B) Mutation		(B) Pleiotropic Effect		
	(C) Transcription		(C) Co-dominance		
	•		(D) Environmental effect		

(D) Jumping genes

93.	"Law of homologous series of variation" was given by  (A) N. I. Vavilov  (B) Gregor Johann Mendel  (C) R. A. Fisher  (D) H.G. Khurana	97.	Desirable oligogenic trait can be transferred into the commercial existing variety lacking in it by  (A) Pure-line selection  (B) Mass selection method  (C) Back-cross method  (D) Bulk method
94.	Maturation of anthers before stigma is referred to as  (A) Protogyny  (B) Protandry  (C) Andromonoceous  (D) Gynodioceous	98.	How many net gain of ATP in glycolysis of one molecule of glucose?  (A) 2  (B) 4  (C) 6  (D) 8
95.	Male Sterility promotes  (A) Cleistogamy  (B) Self-Fertilization  (C) Cross-Fertilization  (D) Autogamy	99.	Kranz anatomy is found in:  (A) Wheat  (B) Soybean  (C) Cowpea  (D) Sugarcane
96.	Progeny of single homozygous self pollinated crop is	100	. Photosynthesis occurs in:

100. Photosynthesis ocçurs in:

(A) Thylakoid

(B) Matrix

(C) Chromoplast

(D) Leucoplast

(A) Pure-Line

(B) Inbred Line

(D) All of the above

(C) Multiline

## SPACE FOR ROUGH WORK

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