

S. No.	Question	Option 1	Option 2	Option 3	Option 4
1	Who is considered as the "Father of Modern Plant Pathology and Indian Mycology"?	Oscar Brefeld	E.J.Butler	W.M.Stainley	E.F.Smith
2	Who was the first president of Indian Phytopathology?	Dr. J.F.Dastur	Dr.K.C.Mehta	Dr.B.B.Mundkar	Dr.Raghubir Prasad
3	The Monographs on "Genera of Uredinales of the world" Ustilaginales of India" were write by?	Dr.J.F.Dastur	E.J.Butler	Dr.M.J.Thirumalachar	Dr. T.S.Ramakrishnan
4	The disease which is due to Zn-deficiency in rice was first discovered and reported from India by which scientist and its name?	Dr. J.P.Verma-Tundu	Dr.M.K.Hingorani-Leaf spot	Dr. S.R. Bose-Smut	Dr. Y.L.Nena-Khaira
5	Which Institute started post graduate programme in Plant Pathology for the first time in India:-	Govt. Agriculture college,kanpur in 1945	Rajasthan College of Agriculture,Udaipur,1955	Tamil Nadu Agriculture University,1956	College of Agriculture,pune,1950
6	Who dicovered virus diseases in Plants for the first time in the world?	E.F.Smith-1983	M.W.Beijerinck-1998	Michael Holling-1962	Kassanis-1968
7	P.A.Millardet discovered a fungicide which was effective against which disease and name of the fungicide:-	Rust disease of wheat-Bavistin	Downy mildew of Bajra- Apron SD 35	Powdery mildew of cucurbits-Sulfex	Downy mildew of grapes-Bordeaux mixture
8	Which ancient book in India which deals with the disease of plants and their control:-	Charak Samhita-4th Century.	Genera Plantarum- 8th Century	Surapala Vriksharveda-9th Century	Sushrut samhita-7th Century
9	Dutch elm disease is caused by:-	viroid	Bacteria	Fungus	Mycoplasma
10	which group belong to obligate parasite?	Powdery mildew,Rusts, Dowry mildew	Smuts,Rust,and blight	Anthracnose,Root rot,Collar rot	Cankers,Stripe diseases and Scabs.
11	PR ₄ protein is related is	chitinase	B-1,3 glucanase	Globulins	Fungal growth inhibition
12	Phytoalexins are inhibitory is	Only fungi	Fungi,bacteria,nematodes, and other organisms	Only bacteria	Only Viruses

13	The best example of macrocyclic rust in India is	Yellow rust of wheat	Rust of groundnut	Black stem rust of wheat	Common rust of maize
14	At what pressure culture media for microorganisms can be autoclaved :-	121.6 °C and 15 pounds(6.8 kg) pressure for 20 minutes.	150 °C and 15 pounds(6.8 kg) pressure for 30 minutes.	200 °C and 20 pounds(6.8 kg) pressure for 30 minutes.	210 °C and 20 pounds(6.8 kg) pressure for 20 minutes.
15	Viroids have some unique properties as compared to viruses,Which one of the given below is correct for viroids:-	Have protein coat, smallest infectious entity, no vector known.	Can survive on dead plant debris also and have protein coat-	Vector transmitted,no protein coat,circular ss DNA	No protein coat,no vector is known, circular ss DNA
16	Blight of cumin, in Rajasthan. Is caused by :-	<i>Alternaria alternata</i>	<i>Alternaria tenuis</i>	<i>Alternaria burnsii</i>	<i>Xanthomonas spp.</i>
17	Which one of the following microorganisms fixes nitrogen but does not induce root nodule formation :-	Rhizobium	Azorhizobium	Bradyrhizobium	Azospirillum
18	Which one of the following transmits Grape fan and tobacco ring spot virus :-	Fungus	Whitefly	Grasshopper	Nematodes
19	Most of the <i>Colletotrichum</i> spot cause :-	Blight	Stab	Root rot	Anthracoise
20	Loose smut of wheat completely :-	Soil borne disease	Soil and seed borne disease	Seed borne disease	Air borne disease
21	<i>Pseudomonas syringae pv tabaci</i> produces.	AM.-toxins	Tabo-toxins	Phaseolotoxin	Syngotoxin
22	Elicitors are capable of inducing :-	Toxin synthesis	Phytoalexin synthesis	Enzyme synthesis	Coenzyme synthesis
23	Burgundy mixture was discovered in 1887 as a substitute of :-	Chestnut compound	Bordeaux mixture	copper carbonate	Ziram
24	Random amplified polymorphic DNA markers are often used to ;-	Detect genetic similarities among pathogenic strains	Detect enzymes	Detect genetic dissimilarities among pathogenic strains	Detect genetic code.
25	which one is an example of host specific toxin?	Tabotoxin	Fusaric acid	Piricularin	Victorin
26	Tyndallisation is performed at :-	150 °C for 20 mini. for 2 days	100 °C for 20 mini. for 3 days	121 °C for 20 mini. for 2 days	121.6 °C for 15 mini. for 3 days

27	Downy mildew is caused by members of :-	Pythiaceae	Moniliaceae	Albergnaceae	Pernosporaceae
28	Clamp-connection are found in :-	<i>Albugo</i>	<i>Erysiphe</i>	<i>Puccinia</i>	<i>Ustilago</i>
29	Black-heart disease of patato is caused by :-	Phytophthora infestans	Alternaria solani	Low oxygen and high temperatu	Boron deficiency
30	The term hypersensitive response was given by :-	Mc Kinney	W.N. Stanley	E.C. Stakman	Bawden and pirie
31	Who discovered disease cycle of cereal rusts in India :-	M.K.Patel	B.B. Mundkar	E.J.Butler	K.C.Mehta
32	Which of the rusts was studied by flor(1956) for his gene- for - gene hypothesis :-	Rust of wheat	Rust of Tea	Rust of Gram	rust of Flax
33	Which of the fungus causes hypertrophy of floral parts and tumors in all parts of the host plant:-	<i>Peronospora arborescens</i>	<i>Sclerospora sorghii</i>	<i>Albugo candida</i>	<i>Bremia sp.</i>
34	Which of the bacterium can remove aflotoxin from milk, peanut, peanut oil, butter & corn?	<i>Bacillus subtilis</i>	<i>Xanthomonas campestris</i>	<i>Flavobaeterium</i>	<i>Pseudomonas flourocens</i>
35	Parasexual cycle was discovered in the fungus :-	<i>Aspergillus niger</i>	<i>Aspergillus flavus</i>	<i>Aspergillus fumigatus</i>	<i>Aspergillus nidulans</i>
36	The strength of alcohol used in Gram;s stain is :-	75%	85%	95%	55%
37	Who wrote the book " Bacteria in relation to plant diseases".	Robert Koch	M.Goto	Jhon Tyndall	Erwin Frink Smith.
38	Who reported phenomenon of cross- protection for the first time in citrus tristeza virus :-	K.M.Smith	W.C.Price	H.H.Mckinney	R.A.Salaman
39	Potato virus-Y is transmitted by aphid vector in :-	Non- persistent manner	Persistent Manner	Semipersistent manner	Propagative manner
40	Which of the following is mostly used as an abrasive in laboratory :-	Telecom powder	Silica Gel	Charcoal Powder	Carborandum

41	Which of the following is used for green preservation :-	Zink sulphate	Cpper sulphate	Calcuum sulphate	Iron sulphate
42	An important disease of apple and pear which is called as fire blight was first discovered by -	S.wakesman,1944	J.H. Cragie,1927	T.J. Burill,1878	Johnson in, 1927
43	Which fungus has been found to be a very good biological agent for soil borne diseases ?	<i>Chaetomium</i>	<i>Aspergillus</i>	<i>Trichoderma</i>	<i>Rhizopus</i>
44	Phylum based classification was based on	16 sr DNA molecular data	morphological and physiological characters	Serological characters	Host range
45	On the basis of phylogenetic relationship the sister group relationship exists between :-	Zygomycota - Ascomycota	Ascomycota - Basidiomycota	Omycota- Ascomycota	Chytridiomycota - Basidiomycota
46	In case of Deuteromycetes , the hyphal cell which directly transform into a conidium term as :-	Hyphogenous cell	Conidiophores	Coniothallus	Conidiogenous cell
47	In bacteria cytoplasm is surrounded by cell membrane and cell wall, while in mollicutes:-	Surrounded by cell membrane	surrounded by cell wall	are having three layers cell cover	does not have any protective cover.
48	Most plant pathogenic bacteria are :-	Cocci and having single flagella.	Irregular in shape and having all kinds of rods and cocci shapes .	Rod shaped with only exception streptomycetes which is filamentous.	All plant pathogenic bacteria are filamentous.
49	Angular leaf spot of Cucumber is caused by :-	<i>Xanthomonas campestris pv. vesicatoria</i>	<i>Pseudomonas syringae pv. phaseolicola</i>	<i>Pseudomonas syringae pv. lacrymans</i>	<i>Xanthomonas campestris pv. phaseoli</i>
50	Xylem inhabiting bacteria are serious plant pathogens and they are placed :-	In the genus <i>Pseudomonas</i> , rod shaped cells.	In the genus <i>Xanthomonas</i> , rod shaped cells.	In the genus <i>Clostridium</i> , rod shaped cells.	In the genus <i>Xyllela</i> , rod shaped cells.
51	"Viruses of bacteria" are called as :	DNA virus of bacteria.	RNA virus of bacteria	Bacteriophages	Endospore forming bacteria
52	The viruses with small RNA genome and protein coat and associated with another helper virus for its multiplication and infection called as:	Satellite viruses	RNA - viruses	RNA - associated viruses	Begomo viruses
53	Which fo the following is a group of obligate parasites-	Late blight of potato, rusts, smuts	Downy mildews , stalk rots,smuts.	White rust of mustard, smuts,rusts	Cereospora leaf spot, rusts , white rust of crucifers.
54	Spray of urea on fallen dead leaves is a promising control for the following fruit disease:-	Die back of mango	Apple scab	Anthracoise of banana	Stem end rot of mango

55	Incubation of microbial cultures can be done at lower and higher temperatures than the room temperature in an equipment called as -	Deep freezer	Incubator	Biological oxygen demand incubator	Growth chamber
56	You have to isolate <i>Curvularia</i> from the maize leaves where, it cause leaf spots which media you will prefer to use :-	Nutrient Agar	Potato dextrose Agar	Complete medium	Richard's medium
57	In laminar - air flow cabinet, a burner and air blower is fitted for the purpose of :-	Burning culture and air circulation	To make the inoculation needle aseptic and fresh air circulation	To make the inoculation needle aseptic and to avoid the heat through circulation	to make the isolation free from contaminants and circulation of fresh air through filters
58	Counting of colonies of bacteria/fungi/Actinomycetes can be done by using:-	Hand lens	Stereo microscope	Compound microscope	Colony counter(Digital)
59	Isolation and maintenance of the culture of citrus canker bacteria <i>Xanthomonas campestris pv.citri</i> can be best done on the media:-	Chalk agar	Nutrient agar	YEMA medium	Martin Agar medium
60	Mycoplasma diseases can be controlled by using a specific antibiotic to which these are sensitive :-	Oxytetracycline	Streptomycin sulphate	Agrimycin	Tetracycline
61	Cultural method of disease management includes:-	Deep ploughing, weed removal, crop debris destruction, balanced fertilizer application etc.	Seed treatment, soil drenching by fungicide, bactericides, weed removal etc.	Foliar spray, weed removal, balanced fertilizer, application and timely irrigation.	FYM application with neem cake powder, mulching, seed treatment and foliar spray.
62	Exclusion of disease/ pathogen inoculum is an important and vital task which can be done by :-	Soil treatment, foliar application of fungicides & weedicides.	Seed treatment, seed certification, quarantine regulation.	Soil amendments, fertilizer doses in splits and weed management.	Soil health check, regular monitoring and application of fungicides.
63	In case of downy mildew diseases where, primary infection occurs, the removal of infection seedling helps in :-	Checking spread of secondary infection and disease severity remain low.	Total eradication of the disease.	Loss in the disease developing sources.	There will not be any effect on severity of the disease.
64	The aim of crop rotation is :-	Changing the crop sequence.	Replacing the earlier crop with more valuable crop.	Growing non-host crop.	Planning for an orchard
65	In Rajasthan, majority of virus diseases on crops are :-	Graft transmitted	Seed transmitted	Thrips transmitted	Aphid transmitted
66	Which of the virus in the following virus diseases is thermostable :-	Papaya leaf curl virus.	Tobacco mosaic virus	Banana bunchy top virus.	Cucumber mosaic virus.

67	Powdery mildew of cucurbits caused by <i>Erysiphe cichoracearum</i> was introduced in Indian in 1910 from:-	Bangladesh	Japan	Netherlands	Sri lanka
68	Directorate of plant protection and Quarantine has the role of preventing infected plant materials from :-	Airports, Sea ports	Air ports,Sea ports and land frontiers(entry & exit points)	All airports, sea ports and highways	Only at selected points of entry
69	"For every Avirulent gene in pathogen , there is dominant corresponding Resistance gene in the host" was concluded by :-	Vander Plank, 1962.	H.H.Flor,1956	Stakman,1958	Webster,J.,1959
70	These are low molecular weight protein compounds produced in response of infection or abiotic stress:-	Elicitors	PR-proteins	Antigens	Phytoalexins
71	This kind of resistance does not last long in crop varieties and can be broken with virulent races of pathogen:	Vertical resistance	Horizontal resistance	Cytoplasmic resistance	Biochemical resistance
72	The hyphal organ which gives or exerts pressure on host surface for penetration into host is called as :-	Penetration peg	Appressoria	Germ tube	Haustoria
73	To cover larger area in less time to spray, fungicide/pesticide/micronutrient solution, which type of sprayer would be proper :-	Low volume sprayer	High volume sprayer	foot sprayer	Low volume power sprayer
74	To study the structure of viruses, electron microscope is required which was first designed and invented by:-	Robert Hook,1863	Ernst Ruska,1931	Lamark and Trevinarus,1802	MC Kinney,1929
75	Green ear disease of Bajra is one of the important disease in Rajasthan and its causal organism is :-	<i>Claviceps purpurea</i>	<i>Sclerospora sp.</i>	<i>Peronosclerospora heteropogoni</i>	<i>Sclerospora graminicola</i>
76	According to Agroclimatic zones Zone IV 'a' and IV 'b' have maize crop as a major crop in Kharif season, Which are these areas and important economic disease of maize:-	Kota, Bundi, jhalawar- Bounded leaf & sheath blight	bharatpur, Karauli & Sawai Madhopur- curvularia spot	Udaipur Banaswara, Dunderpur-Stock rot of maize	Bikaner, Jodhpur, Jaisalmer - Maydis leaf blight
77	Powdery mildew genera are differentiated on the basis of :-	Oospores and their shape	conidial production pattern	Cleistothecial appendages	Sporangial production
78	An important pathogen which causes sheath blight of rice and banded leaf and sheath blight in maize is <i>Rhizoctonia solani</i> and this is :-	Mycelial, non sporeforming, sclerotial and infection through cushion.	Conidial, asexual reproduction, sclerotial and infection peg.	Oosporic, soil borne , appressorial mode of infection	Zoosporic, sporangial, separate mycelium & direct penetration.
79	Ber is an important fruit crop of Rajasthan, but powdery mildew causes loss in the chlorophyll area and ultimately affects production The causal organisms is :-	<i>Oidium erysiphoides</i>	<i>Erysiphe polygoni</i>	<i>Leveillula taurica</i>	<i>Sphaerotheca roleana</i>

80	Coriander is important spice crop of Kota, Jhalawar and Baran districts but <i>Protomyces macrosporus</i> causes severe losses. The Name of the disease:-	Blight of coriander	root rot of coriander	Necrosis of coriander	Stem gall of corander
81	Biocontrol agents like <i>Trichoderma viride</i> and <i>T. harzianun</i> can kill the soil borne pathogen propagules like Oospores, chlamyospore, sclerotia etc. How it can be applied to soil:-	Mixing 20 kg of <i>Trichoderma</i> formulation in soil .	Incubation of 100 kg FYM using 2 kg <i>Trichoderma</i> formulation and then adding to soil.	Mixing the <i>Trichoderma</i> formulation along with fertilizer application .	Furrow application of <i>Trichoderma</i> formulation .
82	There is increased focus on organic farming these days, if you have to control diseases in such fields the options are :-	Seed treatment and foliar application of fungicides .	Seed treatment with biocontrol agent and application of fungicides as foliar spray.	Seed treatment with fungicide and furrow application of bio - agents.	Seed treatment with bio agent and foliar spray of botanicals like neem, kalmegh etc.
83	The latest and most sensitive technique for the diagnosis of plant pathogens within shortest possible time based on molecular approaches :-`	Bio- PCR	ELISA	Serological diagnosis	Real time- PCR
84	Which enzymes are extremely important in pathogenesis because they provide the pathogen chemical means of entrance into the host :-	Hydrolytic enzymes .	Only cutinases .	Proteinases	Peroxidases .
85	The reserve food material in Oospores or sexual spores in major quantity is :-	Glycoproteins	Glycogens	Glucose + protein	Galactosse and nucleoproteins
86	Inactivation of pathogen enzymes by host is carried out fromation of :-	Antienzymatic protein substances	formation of barriers like Tyloses	Production of phenolic substance like poly phenol oxidases	Production of toxins by the pathogens
87	To measure the leaf spot diseases like <i>Cercospora</i> leaf spot, a rating scale popular in India is:-	1-10 rating scale	1-5 rating scale	0-9 rating scale	0-4 rating scale
88	To screen the varietal line against downy mildew pathogens , the popular method of inoculation is :	Spray inoculation of conidia- 10^8 /ml.	Wound inoculation by suspension of cnidia	Tooth pick inoculation technique.	Sick plot technique.
89	A farmer comes to you with few fungal diseased plants. How you will process to give him precise solution :-	Suggesting fungicide on the basis of symptoms.	Diagnosis of the pathogen and suggesting specific fungicide .	On the basis of severity you will suggest precautionary measures.	Suggesting systemic fungicide to avoid further damage.
90	In India if you want to get a pathogen culture identified authentically, which agencies /institutes you will contact:-	Central Institutes of that particular crop	IARI and its regional stations.	Taxonomist and senior Faculty in the universities-	ITCC ,IARI New Delhi,NBAIM at Mau, UP.
91	Based on environmental parameters, the computer simulations model "EPIVEN" was made for forecasting of the disease:-	Vein clearing of tobacco	Blossom blight of apple.	Southern leaf blight of maize	Apple scab.

92	Based on the available data of disease ratings, which formula you will use to calculate percent disease Index:-	(Number of infected plants / Total no. Of plants observed) X 100	(Sum of the ratings/ Total plants/leaves) X 100	(Area of plant tissue infected / Total area) X 100	(Sum of the individual ratings/ Total no. Of plant/leaves observed) X (100/Maximam disease rating)
93	The most popular ediable mushroom in the world is (with it scientific name):-	<i>Agaricus bisporus</i> (button mushroom)	<i>Pleurotus sajor-caju</i> (Oyster mushroom)	<i>Morchella Spp.</i> (Button mushroom)	<i>Phellorinia inquinaus</i> (khumbi)
94	In india , the best substrate for spawn production of mushroom is:-	Pearlmillet grains	Sorghum grains	Rice and rye grains	wheat grains.
95	Highly priced mushroom Morchella which is called as "Gucchi" comes under the phylum:-	Zygomycota	Ascomyeota	Basidiomycota	Qomycota
96	Mushroom which is a popular medicinal mushroom and treated as anti-cancer and is being used worldwide:-	<i>Schizophyllum commune</i>	<i>Lentinula edodes</i>	<i>Grifolla frondosa</i>	<i>Tricholoma Sp.</i>
97	In china,this mushroom is treated as curing medicine for major ailments:-	<i>Ganoderma lucidum</i>	<i>Lentinula edodes</i>	<i>Amanita muscaeria</i>	<i>Amanita phalloides</i>
98	In Northens states of India, mushroom production is largely of button mushroom and compost preparation method is :-	Long method of composting (by manual turning)	Short method of composting (by using pasteurization chamber)	Pit method of coumposting using all ingredients mixed in a pit .	FYM like composting method.
99	Pure culture of ediable mushroom can be maintained by :-	Frequent subculturing on PDA.	By keeping culture in Refrigerator.	Lyophilization of pure culture	Subculturing on changing media everytime .
100	The minimum equipments needed for a mushroom spawn lab are :-	Air conditioner ,Auto clave, refrigerator etc.-	Lminar air flow cabinet, B.O.D. Autoclave	B.O.D., oven , colony counter and air circulation ducts .	B.O.D., shakes, spectrophotometer and microscope.

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