

# *MCQs of Weed Management*

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- Q.1. *Commelina benghalensis* bearing short-lived blue coloured flowers is a
- Monocot**
  - Dicot
  - Spermatophyte
  - Pteridophyta
- Q.2. The most systematic method for classifying weeds is based on
- Morphology
  - Life history
  - Habitat
  - Phylogenetic**
- Q.3. Simple perennials are reproduced by
- Rhizomes
  - Tubers
  - Corms
  - Seeds**
- Q.4. The first prominent instance of biochemical mimicry based crop associated weed under Indian perspective is
- Saccharum spontaneus* in sugarcane
  - Phalaris minor* in wheat**
  - Wild rice (*Oryza longistaminata*) in rice
  - Itch grass (*Rottboellia cochinchinensis*) in upland rice
- Q.5. A weed with a trailing stem
- Convolvulus arvensis***
  - Digitaria sanguinalis*
  - Cuscuta* sp
  - Cynodon* sp
- Q.6. A weed with a balloon structure for effective dissemination
- Physalis minima***
  - Avena fatua*
  - Phalaris minor*
  - Amaranthus viridis*
- Q.7. A weed having spines as adaptations that repel grazing
- Solanum nigrum*
  - Solanum xanthocarpus***
  - Parthenium*
  - Ageratum*
- Q.8. Which of the following causes itching and inflammation
- Ammannia baccifera*
  - Solanum nigrum*
  - Urtica* sp**
  - Lantana camara*
- Q.9. Cultivation of water chestnut (*Trapa bispinosa*) is abandoned in India due to
- Lantana camara*
  - Eichhornia***
  - Mikania micrantha*
  - Acacia mearnsii*
- Q.10. *Eichhornia crassipes* is a representative
- of
- Free floating**
  - Rooted floating
  - Rooted submerged
  - Emergent
- Q.11. The partial root parasite
- Cuscuta*
  - Loranthus*
  - Striga***
  - Orobancha*
- Q.12. A weed with a funnel shaped corolla
- Medicago denticulata*
  - Vicia sativa*
  - Convolvulus arvensis***
  - Scirpus* sp
- Q.13. A sedge with rhizomes
- Commelina obliqua*
  - Cyperus rotundus***
  - Scirpus* sp
  - Eleocharis*
- Q.14. A lowland rice sedge
- Cyperus iria*
  - Cyperus difformis*
  - Cyperus esculentus*
  - All**
- Q.15. The 'condition influences' directly plant ability in exploring resources
- Soil density**
  - Soil CO<sub>2</sub>
  - Soil N
  - Soil water
- Q.16. Hans Molish is associated with
- Competition
  - Eutrophication
  - Allelomediation
  - Allelopathy**
- Q.17. The natural product explored as commercial herbicide
- glufosinate
  - dicamba
  - cinmethylin
  - all**
- Q.18. Man associated with 'Horse Hoeing Husbandry'
- Zimdahl Robert L.
  - Molish
  - Jethro Tull**
  - Aspinall and Milthorpe
- Q.19. Dryland weeds usually have
- deep root
  - hairyness
  - Mucilaginous stem**
  - all**
- Q.20. A weed poisonous to animals and human beings
- Datura metal***

- b). *Ammannia baccifera*  
 c). *Chenopodium*  
 d). *Urtica sp*
- Q.21. Successful weed management is based on  
 a). Knowledge on weed biology  
 b). Survey on the nature of weed problem  
 c). Whole farm planning  
 d). Removal of weeds before flowering  
 i. a & b                      ii. b & d  
 iii. c & d                      iv. **All**
- Q.22. A system approach based on whole land use planning  
 a). Weed eradication  
 b). Weed control  
 c). Weed prevention  
 d). **None**
- Q.23. Weed control aims to putting down weed infestation  
 a). **Already present**  
 b). a + future infestations  
 c). b + introduction from the adjacent fields  
 d). Combining the available techniques in the optimum level
- Q.24. Eradication is possible in following weed situations  
 a). *Ageratum conyzoides*  
 b). *Phalaris minor*  
 c). *Parthenium hysterophorus*  
 d). **Lantana**
- Q.25. Besides providing N Azolla is used for weed control in  
 a). Wheat  
 b). **Rice**  
 c). Castor  
 d). Linseed
- Q.26. Azolla pinnata is  
 a). **a fern**  
 b). an algae  
 c). a gymnosperm  
 d). an angiosperm
- Q.27. Spudding involving hand weeding/hoeing added by a sharp edged sickle is most common in  
 a). Wheat  
 b). **Sugarcane**  
 c). Sesame  
 d). **Rice**
- Q.28. Dredging is most effective treatment for controlling  
 a). Parasitic weeds  
 b). *Lantana*  
 c). Agrestals  
 d). **Aquatic weeds**
- Q.29. Flooding is an effective strategy to control  
 a). ***Avena ludoviciana***  
 b). *Sorghum halepense*  
 c). *Cynodon dactylon*  
 d). All  
 e). None
- Q.30. Bioagent for controlling *Parthenium hysterophorus*  
 a). *Bactra verutana*  
 b). ***Zygodotoma bicolorata***  
 c). *Chrysolira*  
 d). Flea beetle
- Q.31. The first rule of weed prevention  
 a). Regular survey to identify new weeds  
 b). Destruction of weeds before they set seed  
 c). **Clean seed**  
 d). Clean farm equipments and irrigation water
- Q.32. A companion crop  
 a). Hairy vetch  
 b). Winter rye  
 c). Cowpea  
 d). **All**
- Q.33. A farming practice influencing weed floristic diversity  
 a). Fertility manipulation  
 b). Crop rotation  
 c). Intercropping  
 d). **All**  
 e). None
- Q.34. Practices using direct radiant energy of the sun  
 a). **Soil solarization**  
 b). Micro-waves  
 c). Flaming  
 d). All
- Q.35. Post-plant tillage helps in  
 a). Mixing of manures  
 b). Control of weeds  
 c). Soil and water conservation  
 d). None  
 e). **All**
- Q.36. Flooding – a worldwide crop husbandry method of controlling weeds in  
 a). Maize  
 b). Sugarcane  
 c). Buckwheat  
 d). **Rice**  
 e). None
- Q.37. Inter-culture with bullocks in standing water  
 a). **Rice**  
 b). Sorghum  
 c). Pearl millet

- d). all
- Q.38. The first chemical shown to have herbicidal activity
- 2,4-D
  - Bordeaux mixture**
  - Paraquat
  - 2,4-DB
- Q.39. The herbicidal activity of 2,4-D at the first time was reported by
- Hammer and Tukey (1944)
  - Zimmernam and Hitchcock (1942)**
  - Nutman and Blackman (1945)
  - None
- Q.40. a latest herbicide family
- Triazines
  - Dinitroanilines
  - Sulfonyl ureas**
  - Growth regulators
- Q.41. The effective control of morphological similar *Phalaris minor* in wheat is achieved with
- 2,4-D
  - Glyphosate
  - Metsulfuron - methyl**
  - Isoproturon**
- Q.42. Which of the following gives effective control of *Phalaris minor* in wheat
- Hand weeding
  - Inter-cultivation
  - Flaming
  - Clodinafop-proparygyl**
- Q.43. Integrated weed management practices that
- Enhance crop competitive ability
  - Decrease weeds ability to reduce yield
  - Practices that eliminate weeds from an area
  - Both a and b**
  - Both a and c
- Q.44. The first phase of IWM as per Sheley
- Integrated use of different methods
  - Planning and implementation
  - Inventorization**
  - Monitoring and evaluation
- Q.45. Selective post-emergence herbicide
- 2,4-D**
  - Glyphosate
  - Paraquat
  - All
- Q.46. A non-selective contact herbicide
- Glyphosate
  - Paraquat**
  - 2,4-D
  - None
- Q.47. A soil applied herbicide
- Glyphosate
  - Paraquat
  - 2,4-DB
  - Fluchloralin**
- Q.48. A 'Natural amongst the following
- Devine**
  - Glyphosate
  - Potassium chloride
  - 2,4-D
- Q.49. A micro-herbicide
- Bt
  - Collago**
  - NPV
  - Zygogramma
- Q.50. Application of bio-herbicides
- Aerial sprays
  - Cut and paste
  - Soil application
  - All**
- Q.51. Dab system is successful practical strategy in limiting future weed infestation in
- Xerophytic environments
  - Rainfed areas
  - Water-logged areas
  - Irrigated areas**
- Q.52. Flaming and steaming are successful practical weed control tools in
- Asian countries
  - Western countries**
  - African countries
  - Japan
- Q.53. The practice that directly hit soil weed seed bank in minimizing future weed infestation
- Microwave irradiation
  - Soil solarization
  - Stale seed bed
  - All**
  - None
- Q.54. A practice where one or two flushes of weeds are destroyed before seeding a crop
- Cheeling
  - Stale seed bed**
  - Searing
  - None
- Q.55. A practice that does not necessarily involve tillage
- Summer ploughing/hot weather cultivation
  - Stale seed bed
  - Soil solarization**
  - None
- Q.56. Soil solarization increases soil temperature by
- 10-12 °C**
  - 3-4 °C

- c). 15-16 °C  
d). 20-22 °C
- Q.57. The condition intensifies the spread of perennial propagules of weeds after being exposed by tillage  
a). Hot weather  
b). **Rainfall**  
c). High light intensity  
d). High wind
- Q.58. Which is the 'odd one' based on mimicry  
a). Wild rice in rice  
b). Wild sorghum in sorghum  
c). Wild sugarcane in sugarcane  
d). **Itch grass in upland rice**
- Q.59. C<sub>4</sub> weed  
a). *Avena fatua*  
b). *Lolium temulentum*  
c). ***Sorghum halepense***  
d). *Phalaris minor*
- Q.60. The environment friendly weed control method  
a). **Biological**  
b). Physical  
c). Chemical  
d). None
- Q.61. To devitalize weed seeds in manure, the composting temperature must be in which of the following range  
a). 35-50 °C  
b). 50-65 °C  
c). **65-90 °C**  
d). 90-105 °C
- Q.62. Paraquat is associated with inhibition of which of the following  
a). **PSI**  
b). PSII  
c). PPO  
d). HPPD
- Q.63. Symptoms where shoots/leaves are bleached white are caused due to  
a). Atrazine  
b). Glufosinate  
c). **Tembotrione**  
d). Fluazifop-p-butyl
- Q.64. Herbicides inhibiting Acetolactate Synthase (ALS) associated with making of leusine, isoleucine and valine  
a). Ureas  
b). **Sulfonylureas**  
c). Chloracetamides  
d). Bipyridilliums
- Q.65. Mode of action of isoproturon  
a). **PSII inhibition**  
b). ACCase inhibition  
c). Glutamine synthetase inhibition  
d). Cell division inhibition
- Q.66. Foundation for phenomenal achievement in modern chemical weed management  
a). Safeners  
b). Adjuvants  
c). **Selectivity**  
d). Herbicide combinations  
e). None
- Q.67. Which of the formulations has low leachability in soils  
a). EC  
b). WP  
c). **Granules**  
d). WSC
- Q.68. An enzymatic beta-oxidation process  
a). Conjugation  
b). **Reverse metabolism**  
c). Translocation  
d). Metabolism
- Q.69. In case of combined application of herbicides, application rate can be reduced in which of the following interaction  
a). Antagonistic  
b). **Synergistic**  
c). Additive  
d). None
- Q.70. Mixture of glyphosate with 2,4-D on field bindweed had interaction of the type  
a). **Synergistic**  
b). Antagonistic  
c). Additive  
d). Enhancement
- Q.71. The odd one amongst the following  
a). **Adjuvants**  
b). Activators  
c). Spray modifiers  
d). Utility modifiers
- Q.72. The odd one amongst the following  
a). Surfactants  
b). **Activators**  
c). Wetting agents  
d). Phytobland oils
- Q.73. Physical removal/loss of herbicides  
a). **Adsorption**  
b). Hydrolysis  
c). Deamination  
d). Dealkylation
- Q.74. Deactivation of herbicides in the plant system  
a). Conjugation  
b). Accumulation  
c). Secretion  
d). **All**  
e). None
- Q.75. In the development of transgenics, tolerance to herbicide glufosinate is

conferred by which of the following

- a). **bar**
- b). CP4
- c). gox
- d). All
- e). None

Q.76. *Striga densiflora* and *Orobancha aegyptica* are the weeds of

- a). Rice and Wheat
- b). Sugarcane and Mustard**
- c). Wheat and Sugarcane
- d). Oats and Rice

Q.77. *Phalaris minor* has developed resistance to isoproturon in Punjab and Haryana in

- a). Rice
- b). Wheat**
- c). Sugarcane
- d). Cotton

Q.78. Which of the weed accumulates more phosphorus content of over 3%.

- a). Digitaria**
- b). *Amaranthus*
- c). *Chenopodium*
- d). *Portulaca*

Q.79. Two or more species coexist in a place due to the reason

- a). Different nutritional requirement
- b). Different causes of mortality
- c). Different time demand for growth factors
- d). All**

Q.80. Consumptive use of *Chenopodium album* is

- a). 200 mm
- b). 550 mm**
- c). 750 mm
- d). 1000 mm

Q.81. Intra-specific competition is between

- a). Plants of the cultivated species and weed species
- b). Plants of the same weed species**
- c). Plants of the different weed species
- d). None of the above

Q.82. The producer usually is most concerned about the

- a). Competitive threshold
- b). Economic threshold**
- c). Both a and b
- d). None of the above

Q.83. Noncompetitive crops such as onion or garlic require a weed-free period of

- a). 3 months or more**
- b). One month
- c). 10 days
- d). None of the above

Q.84. Competitive crops such as corn or soybean require weed-free period of

- a). 2 months
- b). 3-4 weeks**
- c). 3 months
- d). None of the above

Q.85. Wheat and bajra have critical period of crop-weed competition

- a). 10-20 days
- b). 15-30 days
- c). 30-45 days**
- d). 20-40 days

Q.86. Percent reduction in grain yield of transplanted rice due to weeds is

- a). 20-40
- b). 10-30
- c). 15-20
- d). 15-45**

Q.87. Sugarcane takes about how much time to complete its germination phase

- a). 10 days
- b). 15 days
- c). One month**
- d). 60 days

Q.88. Factors affecting weed-crop interference are

- a). Period of weed growth
- b). Soil and climate influence
- c). Plant species effects
- d). All**

Q.89. Deep germinating weed seeds are at depth of

- a). Upto 5cm
- b). 2.5 cm
- c). 15cm**
- d). 1cm

Q.90. Shallow germinating weed seeds are at depth

- a). Upto 5cm**
- b). 10 cm
- c). 15cm
- d). 7.5cm

Q.91. Surface germinating weed seeds are at depth

- a). 1cm**
- b). 2.5cm
- c). 7.5cm
- d). 15cm

Q.92. Consumptive use of wheat is

- a). 800 mm
- b). 679 mm
- c). 979 mm
- d). 479 mm**

Q.93. Percent reduction in yield in case of onion due to weeds is

- a). 20-30

- b). 30-35  
**c). 60-70**  
 d). 15-20
- Q.94. Production practices that influence weed shift are  
 a). Effectiveness of weed management program  
 b). Speed of weed shift occurrence  
 c). Interface areas  
**d). All**
- Q.95. Test weight of *Phalaris minor* is  
 a). 10 g  
 b). 15 g  
 c). 7g  
**d). 2 g**
- Q.96. One to two flushes of weeds are destroyed before planting of crop is called  
**a). Stale seed bed**  
 b). Blind hoeing  
 c). Weeding  
 d). Summer ploughing
- Q.97. Struggle for survival and existence is called  
 a). Critical period  
**b). Competition**  
 c). Dormancy  
 d). Persistence
- Q.98. Weed responsible for forest fire is  
 a). *Aligator weed*  
 b). *Sorghum halepense*  
**c). Lantana**  
 d). *Amaranthus*
- Q.99. Active toxic material present in the formulation is  
 a). Acid equivalent  
 b). Phytochemical  
**c). Active ingredient**  
 d). Surfactant
- Q.100. To compete comes from the word competere which is  
 a). Greek  
 b). German  
**c). Latin**  
 d). English
- Q.101. The period at which maximum crop weed competition occurs is  
**a). Critical period**  
 b). Dormancy  
 c). Flaming  
 d). Threshold
- Q.102. An ingredient added to a formulation for enhancing the action of toxicant is called  
 a). Adsorbent  
**b). Adjuvant**  
 c). Antidote  
 d). Active ingredient
- Q.103. Which of the following is used to reduce toxicity  
 a). Reductant  
**b). Safener**  
 c). Adsorbent  
 d). Adjuvant
- Q.104. Critical period of crop weed competition in sugarcane is  
 a). 30-40 days  
**b). 30-120 days**  
 c). 10-40 days  
 d). 15-30 days
- Q.105. Generally weeds seeds are abundant at a depth of  
**a). 1.0-1.5cm**  
 b). 5 cm  
 c). 10cm  
 d). 15cm
- Q.106. Which herbicide group inhibitor the photosynthesis reaction ?  
 a). Thiocarbamates  
**b). Triazines**  
 c). Cyclohexanedione  
 d). Benzoic acid
- Q.107. Which herbicide group inhibit the lipid synthesis?  
**a). Cyclohexanedione**  
 b). Acetanilides  
 c). Uracils  
 d). Nitriles
- Q.108. A pre plant incorporated herbicide  
 a). Paraquat  
 b). Delapon  
 c). Uracils  
**d). Fluchloralin**
- Q.109. Which herbicide is systemic and translocated type ?  
 a). Atrazine  
 b). Diuron  
 c). Paraquat  
**d). Glyphosate**
- Q.110. Which herbicide is used in aquatic weed control?  
**a). Acrolein**  
 b). Delapon  
 c). Diuron  
 d). Picloram
- Q.111. What is the chemical name of MCPA ?  
 a). 2-(4-chloro-2 methylphenoxy acid  
 b). 4-(4 chloro-2 methylphenoxy acid  
**c). 4- chloro-2 –methylphenoxy acid**  
 d). 2,4-dichlorophenoxy acid
- Q.112. What is the chemical name of Dicamba ?  
 a). 3-amino-2,5-dichlorobenzoic acid

- b). 3,6-dichloro2-metoxibenzoic acid**  
 c). 2,3,6- trichlorobenzoic acid  
 d). None of the above
- Q.113. What is the mode of action of sulfonamide herbicide  
**a). Amino acid synthesis inhibitor**  
 b). Photosynthesis inhibitor  
 c). Lipid inhibitor  
 d). Pigment inhibitor
- Q.114. Which herbicide is amino acid synthesis inhibitor  
**a). Glyphosate**  
 b). 2,4-D  
 c). MCPA  
 d).Atrazine
- Q.115.What is the mode of action of diclofop  
 a). Root inhibition  
**b). Shoot inhibition**  
**c). lipid inhibition**  
 d). Photosynthesis inhibition
- Q.116.The mode of action of dinitroanilines  
 a). Shoot growth inhibitor  
 b). Lipid inhibitor  
**c). Root growth inhibitor**  
 d). Amino acid inhibitor
- Q.117. Which herbicide's mode of action is root growth inhibition?  
 a). Fluchloralin  
 b). MCPA  
 c). Glyphosate  
**d). Alachlor**
- Q.118. The mode of action of thiocarbonates is  
 a). Lipid inhibitor  
 b). Cell membrane disruption  
 c). Pigment inhibitor  
**d). Shoot inhibitor**
- Q.119.The mode of action of Atrazine is  
 a). Pigment inhibition  
 b). Cell membrane disruption  
 c). Seedling growth inhibition  
**d). Photosynthesis inhibition**
- Q.120. Which herbicide not belong to triazine group  
 a).Atrazine  
 b).Metribuzin  
 c).**Bentazon**  
 d).Ametryn
- Q.121.The mode of action of Isoproturon is  
 a). Root inhibitor  
 b). Shoot inhibitor  
**c). Photosynthesis inhibition**  
 d). Amino acid inhibition
- Q.122. Which herbicide is photosynthesis inhibitor ?  
**a). Bromacil**
- b). Glyphosate**  
 c). Paraquat  
 d). 2,4-D
- Q.123. Which herbicide group is photosynthesis inhibitor?  
**a). Nitriles**  
 b). Carbamate  
 c). Dicarboxylic acid  
 d). Dinitroanilines
- Q.124.The mode of action of paraquat is  
 a). Amino acid synthesis inhibition  
 b). Pigment inhibition  
**c). Cell membrane disruption**  
**d). Shoot inhibition**
- Q.125. Which herbicide mode of action is pigment inhibitor?  
 a). MCPA  
 b). Fluchloralin  
**c). Chlomazone**  
 d). 2,4-D
- Q.126.Roundup introduced in which year  
 a).1972  
 b).1986  
 c).1967  
**d).1971**
- Q.127. Change in molecular structure of applied herbicides inside the plant is known as  
 a). Conjugation  
**b). Metabolism**  
 c). Reverse metabolism  
 d). Degradation
- Q.128. Which is Post emergence herbicide ?  
**a). Propanil**  
 b). Fluchloralin  
 c). Alachlor  
 d). Thiobencarb
- Q.129. Which herbicide is pre - plant applied herbicides ?  
**a). Dalapon**  
 b). 2,4-D  
 c). Alachlor  
 d). All
- Q.130. Which is non – selective herbicide ?  
**a). Glyphosate**  
 b). Fluchloralin  
 c). 2,4-D  
 d). Propanil
- Q.131. Trade name of Nitrofen ?  
 a).Lasso  
**b).Toke - E - 25**  
 c).Round up  
 d).Plant guard
- Q.132. Which herbicide belong to pyridines group ?  
**a). Picoloram**



- b). Dicamba  
c). Chloramben  
d). Imazethapyn
- Q.133. Metsulfuron herbicide belong to which group  
a). **Sulfonylureos**  
b). Pyridines  
c). Benzoic  
d). Carboxalic group
- Q.134. Triallate herbicide belong to which group?  
a). Triazines  
b). Benzoic  
c). **Thiocarbomates**  
d). Uracils
- Q.135. Paraquat herbicide belong to which group  
a). **Bipyridylum**  
b). Benzoic  
c). Carboxalic  
d). Uraciles
- Q.136. Which of the plants will show more susceptibility to herbicide application?  
a). **Stressed**  
b). Healthy  
c). Old  
d). all
- Q.137. The weather condition is optimum for herbicidal weed control?  
a). High temperature low humidity  
b). High temperature high humidity  
c). **warm temperature high humidity**  
d). cold temperature low humidity
- Q.138. The type of soils which require higher dose of herbicides to be effective is  
a). Inceptisols  
b). **Histosols**  
c). Oxisols  
d). Ultisols
- Q.139. The ideal temperature for application of post-emergent herbicides is in the range of  
a). 15°C to 20°C  
b). 15°C to 25°C  
c). **18°C to 30°C**  
d). 25°C to 35°C
- Q.140. Volatilisation losses are more in which of the following condition  
a). Cold  
b). **Warm**  
c). Humid  
d). Dry
- Q.141. Highly soluble herbicides like 2,4-D salt, Dalapon and TCA have to be avoided in which of the soil type  
a). Peat  
b). Red  
c). Clay  
d). **Sandy**
- Q.142. Herbicides prone to photodecomposition such as Trifluralin, monuron, chloramben and PCP should be applied in  
a). Morning  
b). **Evening**  
c). Afternoon  
d). all
- Q.143. The greatest factor affecting herbicide adsorption is  
a). pH  
b). Salt  
c). **SOM**  
d). Soil nutrient
- Q.144. Which type of clay will adsorb more herbicide?  
a). **Montmorillonite**  
b). Illite  
c). Kaolinite  
d). b & c
- Q.145. Montmorillonite clays adsorb more herbicide as compared to other clays due to  
a). Expanding lattices  
b). more surface area  
c). More negatively charged sites  
d). **All**
- Q.146. Herbicides are more tightly bound to soils under which of the condition  
a). Field capacity  
b). Saturated  
c). Both a and b  
d). **Dry**
- Q.147. Herbicides are less effective on weeds under which of the soil condition  
a). Field capacity  
b). Saturated  
c). Both a and b  
d). **Dry**
- Q.148. Which of the following herbicides will be tightly bound to the soil?  
a). Trifluralin KOC(mL/g)= 7000  
b). **Paraquat KOC(mL/g)= 10,00,000**  
c). Glyphosate KOC(mL/g)= 24,000  
d). Alachlor KOC(mL/g)= 124
- Q.149. Herbicide leaching is prominent in  
a). **Sandy**  
b). Sandy loam  
c). Clay loam  
d). loam
- Q.150. Pesticide Leaching Potential (PLP) is based on  
a). Water solubility  
b). **Tendency for adsorption**  
c). **Both a and b**

- d). pH
- Q.151. Ground Water Contamination Potential (GWCP) is determined by
- PLP
  - SLP
  - both a and b**
  - KOC
- Q.152. The major means for herbicide dissipation is which type of following degradation
- Microbial**
  - Chemical
  - photo
  - Physical
- Q.153. Oxadiazon has a half life of 60 days, so after 120 days the concentration will be
- $\frac{1}{2}$
  - $\frac{1}{4}$
  - $\frac{1}{3}$
  - $\frac{1}{5}$
- Q.154. In soils with low fertility, the degradation of herbicides is
- Slow**
  - Constant
  - Fast
  - no effect
- Q.155. Microbial breakdown of phenoxy herbicides such as 2,4-D and MCPA is enhanced by addition of
- Nitrate
  - Sulphate
  - Phosphate**
  - Chlorate
- Q.156. An additive that makes herbicide formulation mix with water is called
- fertilizer
  - an adjuvant**
  - a pellet
  - a mixer
- Q.157. Surfactants act as
- Wetting agent
  - Spreading agent
  - Penetrants
  - All**
- Q.158. Constant physical agitation of the spray liquid during field operations can be minimised by adding
- Emulsifiers**
  - Coupling agents
  - Surfactants
  - Humicants
- Q.159. Herbicide emulsion is based on
- Oil in water
  - Water in oil
  - Oil in water in oil
  - All**
- Q.160. Humicants acts as an agent to prevent
- Washing off
  - Spreading
  - Drying**
  - Incompatibility
- Q.161. An example of Humicant is
- Sodium alginate
  - Glycerol**
  - Acetone
  - Petroleum ether
- Q.162. Surfactants are
- cationic
  - Non-ionic
  - Anionic
  - All**
- Q.163. A farmer, in order to save one spraying operations mix herbicides, insecticide, fungicide etc. at the time of spray, to achieve this feature add
- Compatibility agents**
  - Spreaders
  - Activators
  - Adhesive
- Q.164. efficacy of an activator adjuvant is a function of
- Adjuvant only
  - Herbicide only
  - Both a&b**
  - Antagonism
- Q.165. Drift susceptible size of droplets in micron diameter is
- 150-200
  - 200-250
  - <150**
  - >250
- Q.166. Herbicides which avoids photodecomposition by being rapidly absorbed
- Dinitroanilines
  - Pinoxaden
  - Sethoxydim**
  - quizalofop-p-ethyl
- Q.167. Other than ai, by which of the following phytotoxicity may occur
- solvents
  - impurities'
  - high dose
  - all**
- Q.168. A transport process in herbicide removal
- volatilization**
  - photo-decomposition
  - chemical decomposition
  - microbial degradation
- Q.169. A degradative process in herbicide removal from a site
- leaching
  - photo-decomposition**

- c). volatilization  
d). adsorption
- Q.170. The first genetically modified plants from Monsanto resistant to glyphosate which achieved widespread success were
- Maize
  - Canola
  - Cotton
  - Soybeans**
- Q.171. The authority associated with the first genetically modified plants the soybean resistant to glyphosate from Monsanto which achieved widespread success was
- Rachel Carson (May 27, 1907 – April 14, 1964)
  - Fritz Haber (9 December 1868 – 29 January 1934)
  - Robert Fraley** (birthdate: 1953)
  - Norman Borlaug (March 25, 1914 – September 12, 2009)
- Q.172. The first genetically modified plants, the soybean resistant to glyphosate was developed during
- 1983**
  - 2003
  - 1993
  - 1973
- Q.173. A systemic pesticide ?
- kills anything it touches
  - root absorbed
  - Root/shoot absorbed & translocative**
  - shoot absorbed
- Q.174. A herbicide is used to kill what type of pest?
- plants**
  - insects
  - diseases
  - bacteria
- Q.175. Glyphosate is the active ingredient of:
- Gramoxone
  - Treflan**
  - Himore
  - Round-up**
- Q.176. What herbicide classification does 2,4-D fall into?
- Soil, Short residual, non-selective
  - Foliage, contact, non-selective
  - Foliage, translocative, selective**
  - Soil, Long residual, selective
- Q.177. What are the units of LD50?
- mg/kg body weight**
  - g/g body weight
  - kg/g of body weight
  - mg/g body weight
- Q.178. The potential of a pesticide for causing damage to plants is its:
- phytotoxicity**
  - lethal dose
  - defoliation ability
  - chronicity
- Q.179. An additive that makes pesticide formulation mix with water is called:
- safener
  - A mixer
  - an adjuvant**
  - a pellet
- Q.180. Method used to control small brushes
- spraying
  - uprooting**
  - basal barking
  - all**
- Q.181. Basal applications will be more effective during which stage
- active
  - mature
  - Dormant**
  - None
- Q.182. There is a greater risk of damage of herbicide in protected environments due to
- absorption
  - leaching
  - runoff
  - volatilization**
- Q.183. Sulfonylurea herbicides inhibit
- ALS**
  - EPSP synthase
  - PSI
  - PSII
- Q.184. Cross resistance occurs due to
- genetic trait**
  - Plant height
  - Roots
  - Environmental factors
- Q.185. Herbicide Antidotes
- protect crop plants**
  - harm crop plants
  - Protect weeds
  - Harm weeds
- Q.186. Interaction between the herbicide 2,4-D and the herbicide 2,4,5-T is
- antagonistic**
  - synergetic
  - additive
  - Enhancement
- Q.187. Pest control measures are best implemented
- before fruiting
  - before the destructive stage**
  - after plants flower
  - after the pest starts attack

- Q.188. A herbicide applied to the soil before planting a crop is called a  
 a). pre-emergence  
 b). Post-emergence  
**c). Pre-plant**  
 d). None
- Q.189. Chemigation is the process of application through  
**a). Irrigation water**  
 b). Foliar spray  
 c). Soil application  
 d). Basal application
- Q.190. Multiple resistance is the phenomenon in which a weed is resistant to two or more herbicides having  
 a). same mechanisms of action  
**b). different mechanisms of action**  
 c). same chemistry  
 d). different chemistry
- Q.191. Herbicide Resistance can be managed through  
 a). Stop to Use of herbicides with the same mechanism of action  
 b). Use proactive weed control  
 c). Use of post emergence herbicides with at least one mechanism of action  
**d). All of the above**
- Q.192. Naphthalic anhydride is an  
**a). a safener**  
 b). an adjuvant  
 c). an emulsifier  
 d). a pellet
- Q.193. In a soil-free system, the most effective safener was the ..... one most in structure to the herbicide  
**a). similar**  
 b). different  
 c). systematic  
 d). contact
- Q.194. Naphthalic anhydride represented a major pathway of its degradation in soil through  
 a). hydrolysis  
 b). dealkylation  
 c). oxidation  
**d). decarboxylation**
- Q.195. performance of naphthalic anhydride against EPTC was marginal in which type of soils  
 a). clay  
 b). clay loam  
 c). loamy  
**d). sandy silt**
- Q.196. Mixture of 2,4-D and chlorpropham is  
 a). synergistic on dicot  
**b). synergistic on monocot**  
 c). Antagonistic on monocot  
 d). Antagonistic on dicot
- Q.197. Simazine or atrazine is added to glyphosate solution then glyphosate activity  
 a). constant  
 b). enhanced  
**c). reduced**  
 d). None of the above
- Q.198. Surfactants.....the surface tension of spray droplets  
 a). do not affect  
**b). decrease**  
 c). increase  
 d). All
- Q.199. factors to consider in improving the effectiveness of herbicides application  
 a). Increasing management diversity  
 b). application timing  
**c). inherent efficacy of herbicide**  
**d). All**
- Q.200. Processes that break down the herbicides after application includes.....  
**a). Photo and microbial degradation**  
 b). adsorption and uptake  
 c). leaching and runoff  
 d). volatilization and run off
- Q.201. Herbicide application is mainly influenced by  
**a). Application rate, timing and methods**  
 b). Application rate, weather conditions and soil types  
 c). weather conditions, soil types and water chemistry  
 d). All
- Q.202. What is the information put on the label of a pesticide container  
 a). company name and address  
 b). directions for use  
 c). storage and limitations of product  
**d). all**
- Q.203. The most imprecise way of herbicide application  
 a). **Misting**  
 b). Aerial spraying  
 c). Foliar spray  
 d). Basal barking
- Q.204. A application method to avoid herbicide drift  
 a). Misting  
**b). Wick wiping**  
 c). Foliar spray  
 d). Basal barking

- Q.205. Volume of spray fluid in ultra low volume spraying  
 a).300-500 l/ha  
**b).2-5 l/ha**  
 c).25-50 l/ha  
 d).100-150 l/ha
- Q.206. Herbicide resistant crops are called as  
 a).Transgenic  
 b). Non transgenic  
**c).Both transgenic and non transgenic**  
 d). None of the above
- Q.207. Triazine resistant canola is example of  
 a).Transgenic  
**b). Non transgenic**  
 c). Both  
 d). None of the above
- Q.208. Non transgenic herbicide resistant crops were developed using  
**a).Conventional breeding**  
 b).Genetic engineering  
 c).None of the above  
 d).Both
- Q.209. Release of Bromoxynil resistant cotton  
 a).1980  
 b).1999  
**c).1995**  
 d).1987
- Q.210. Glufosinate resistant cotton was commercially made available in  
 a).1993  
 b).1985  
**c).2004**  
 d).1990
- Q.211. Bromoxynil (Bxn) is resistant trait of which crop  
 a).Soybean  
 b).Sugarbeet  
 c).Maize  
**d).Cotton**
- Q.212. Transgenic herbicide resistant crops were developed using  
 a).Conventional breeding  
**b).Genetic engeneering**  
 c).None  
 d).Both
- Q.213. Transgenic crops were first introduced in  
 a).1985  
 b).1983  
 c).1993  
**d).1990**
- Q.214. Among the herbicide resistant crops, which crop was the most dominant transgenic crops in 2010  
**a).Soybean**  
 b). Cotton  
 c). Maize  
 d).Sugarbeet
- Q.215. Herbicide are registered under which insecticide registration act  
**a).1968**  
 b).1969  
 c).1964  
 d).1962
- Q.216. Glufosinate (Bar) is resistant trait of which crop  
 a).Soybean  
 b).Sugarbeet  
 c).Maize  
**d).Cotton**
- Q.217. Gluphosate + Glufosinate (Double Stack) is resistant trait of which crop  
 a).Canola  
 b). Sugarbeet  
 c). Soybean  
**d).Maize**
- Q.218. How many modes of action commercialized between 1970 and 1985  
 a).6  
 b).9  
**c).10**  
 d).12
- Q.219. Glyphosate (Cp4 epsps) resistant trait for sugarbeet crop first sale in which year ?  
 a).1998  
 b).1986  
**c).2007**  
 d).2003
- Q.220. Glufosinate (pat) resistant trait for maize crop first sale in which year ?  
 a).2000  
 b).1992  
 c).1995  
**d).1997**
- Q.221. How many types of research is used to discover new compound for new pesticide  
 a).Four  
 b).Two  
 c).One  
**d).Three**
- Q.222. In empirical type of research, Researcher looks for  
**a).New chemical entities**  
 b).Loopholes in patents  
 c).Studies the ways natural products work & then tries to make molecules that act similarly  
 d).None
- Q.223. aquatic plant used by companies for assessing bioactivity  
 a).Pistia stratiotes

- b). Liverworts  
c). Nelumbo nucifera  
**d). Lemma**
- Q.224. Intermediate rate of benchmark dose  
**a). 1/10**  
b). 1/8  
c). 1/5  
d). 1/7
- Q.225. How many years a patent take for finite lifespan  
**a). 20**  
**b). 15**  
**c). 12**  
**d). 17**
- Q.226. Metto type of research, Reseacher looks for  
**a). Loopholes in patents**  
**b). Studies the way natural products work & then tries to make molecules that act similarly**  
c). None of the above  
**d). New chemical entities**
- Q.227. Lowest dose of the benchmark  
a). 1/90  
**b). 1/100**  
c). 1/80  
d). 1/50
- Q.228. Insecticide/herbicide registration comes under which rule  
**a). 1971**  
b). 1969  
c). 1962  
d). 1968
- Q.229. The process by which a molecule is discovered, developed and formulated into a pesticide product is  
**a). Tenuous and risky**  
**b). Mimic**  
c). Both  
d). None
- Q.230. Which are required during trialling to ensure that the effectiveness of the herbicide is tested against all pests  
a). Plant pathologists  
b). Entomologists  
**c). Both Plant pathologists and Entomologists**  
**d). None**
- Q.231. High levels of Adoption of herbicide resistant crops have dramatically \_\_\_\_\_ the use of herbicides  
**a). I ncreased**  
b). Decreased  
c). No effect  
d). None of the above
- Q.232. Mimic type of research, Reseacher looks for  
**a). Studies the way natural products work & then tries to make molecules that act similarly**  
**b). New chemical enties**  
c). None of the above  
d). Loopholes in patents
- Q.233. Monocot are natural resistant to  
**a). Triazine**  
b). Pyrimidine  
c). Pyridine  
d). Atrazine
- Q.234. Which of these is not a broad spectrum herbicide  
a). Atrazine  
b). Paraquat  
**c). Bromoxynil**  
**d). Glyphosate**
- Q.235. Herbicide currently being used with herbicide resistant crops  
a). Glyphosate  
b). Glufosinate  
**c). Both**  
d). None
- Q.236. The term allelopathy was given by  
a). Rice (1974)  
**b). Molisch (1937)**  
c). Decondole (1832)  
d). Molisch (1930)
- Q.237. The presence of marigold (*Tagetes erecta*) plants and weed coffeesena (*Cassia sp.*) exerts allelopathic effect on  
a). *Orobanche*  
b). *Striga*  
**c). Parthenium**  
d). All of above
- Q.238. Root exudates of which crop has allelopathic effect on *Chenopodium album*?  
a). Wheat  
b). Oat  
c). Pea  
**d). All**
- Q.239. Which weed is considered as biopesticide and severely inhibit the growth of water hyacinth?  
a). *Parthenium*  
b). *Echinochloa*  
c). ***Cuscuta***  
d). *Lantana*
- Q.240. Strigol, a witch weed stimulant isolated from the root exudates of  
**a). Cotton**  
**b). Sorghum**

- c). Alfaalfa  
d). Cowpea
- Q.241. Continuous cropping of which legume crop cause auto allelopathy?  
a). Chickpea  
b). **Alfa-alfa**  
c). Cowpea  
d). Pigeonpea
- Q.242. Environmental factors which increases the allelopathic effects are  
a).low soil fertility  
b). Warm wet condition  
c). Cold wet conditions  
d). **a and b**
- Q.243. Which among the following crops exhibits allo-allelopathy?  
a).Maize  
b). Sorghum  
c). Rye  
d). **All**
- Q.244. Allelochemicals subject to volatilization  
a). **Terpinoids**  
b). Tannins  
c). Purines  
d). All
- Q.245. Which group of allelochemicals contains Quinones and Coumarines?  
a). Flavonoids  
b). **Cinnamic acid derivatives**  
c). Tannins  
d). None
- Q.246. Phenolic acid as root exudates of which crop has detrimental effects on wild mustard?  
a). Wheat  
b). Oats  
c). Chickpea  
d). **a & b**
- Q.247. A crop has residual allelopathy on wheat  
a). Rice  
b). **Lentil**  
c). Maize  
d). Sorghum
- Q.248. Which crop exhibit direct allelopathy?  
a). **Sorghum**  
b). Maize  
c). Lentil  
d). Alfalfa
- Q.249. In functional allelopathy  
a). Toxic substances are released as such from the plants  
b). **A precursor is released and is converted into active substances by some microorganisms**
- c). No release of any toxic substance  
d). release of nitrogen from nodule of legume takes place
- Q.250. First mycoherbicide developed by Abbott Laboratories, USA was  
a).Biosedge  
b). **Devine**  
c). Collego  
d). Biomal
- Q.251. Devine produce lethal root and collar rot in  
a).Velvet leaf  
b). Joint vetch  
c). **Strangler wine**  
d). Dodder
- Q.252. Collego was developed to control  
a). **Aeschynomene indica**  
b). *Eichhornia*  
c). *Cuscuta*  
d). *Morrenia odorata*
- Q.253. VELGO is a bioherbicide used against  
a). *Echinochloa*  
b). *Parthenium*  
c). *Cenchrus*  
d). **Abutilon**
- Q.254. Commercial bioherbicide first appear in the market in early 1980s  
a). Divine  
b). College  
c). Biomal  
d). **All**
- Q.255. Which among the following bioherbicide has control efficiency more than 90 per cent?  
a). **Collego**  
b). Devine  
c). CASST  
d). Biomal
- Q.256. Which bioherbicide is a liquid formulation of spores used to control *Cuscuta chinensis* and *Cuscuta australis*?  
a). Smolder  
b). LuBao  
c). ABG-5003  
d). **a & b**
- Q.257. Classical strategy of biological approach involves  
a). **Biocontrol agent**  
b). Bioherbicides  
c). Bio assay  
d). a & b

- Q.258. The successful development of which bioherbicide led to the discovery of Bio-mal?  
 a). Devine  
 b). **Collego**  
 c). Biosedge  
 d). a & b
- Q.259. CASST is a bio herbicide used to control  
 a). *Cenchrus*  
 b). ***Cassia obtusifolia***  
 c). *Echinochloa*  
 d). *Eichhornia*
- Q.260. Epinasty of cotton is used to measure qualitative assay of  
 a). Atrazine  
 b). **2,4-D**  
 c). Diuron  
 d). Alachlor
- Q.261. Which crop is an indicator plant for the bio assay of Triazines and Aliphatics?  
 a). **Sugarbeet**  
 b). Sorghum  
 c). Cotton  
 d). Mustard
- Q.262. Sorghum is bioassay species for which group of herbicide?  
 a). Dinitroanilines  
 b). Dicamba  
 c). Triazines  
 d). **a & b**
- Q.263. Which indicator plant is used in germination test of bioassay?  
 a). Cucumber  
 b). Sorghum  
 c). Oat  
 d). **All**
- Q.264. To prepare soils for the bioassay, herbicides get inactivated by  
 a). Darco G-60  
 b). Activated charcoal  
 c). **a & b**  
 d). None
- Q.265. A test method using organism to determine the presence of herbicide effect is  
 a). Herbicide analysis  
 b). **Bio assay**  
 c). Bio control  
 d). None of these
- Q.266. The term, allelopathy was given by  
 a). Rice  
 b). **Molisch**  
 c). Decondole  
 d). Democritus
- Q.267. The term, allelopathy came into existence in  
 a). **1937 AD**  
 b). 500 BC  
 c). 1974 AD  
 d). 1832 AD
- Q.268. \_\_\_\_\_ is a selective post – emergence herbicide used for weed control in rice  
 a). **Bispyribac-sodium**  
 b). Butachlor  
 c). Pretilachlor  
 d). Atrazine
- Q.269. Atrazine recommended to be applied as \_\_\_\_\_ application in maize  
 a). Pre-emergence  
 b). Early post-emergence  
 c). Post-emergence  
 d). **All of the above**
- Q.269. Atrazine recommended to be applied as \_\_\_\_\_ application in maize  
 a). Pre-emergence  
 b). Early post-emergence  
 c). Post-emergence  
 d). **All of the above**
- Q.270. Which of the herbicide (ai) requiring higher amount for a unit area to be sprayed  
 a). Bispyribac-sodium  
 b). **Butachlor**  
 c). Cyhalofop-butyl  
 d). Pyrazosulfuron-ethyl
- Q.271. In india herbicides are registered under which of the following Act  
 a). Herbicide Registration Act  
 b). **Insecticide Act, 1968**  
 c). Environment Policy, 2005  
 d). Indian Agrochemicals Registration Act
- Q.272. An approach where bio-herbicides are used to control indigenous weed species  
 a). **Inundative approach**  
 b). Inoculative approach  
 c). Classical approach  
 d). None of the above
- Q.273. A natural to manage pest  
 a). Bt  
 b). Devine  
 c). NPV  
 d). **All of the above**
- Q.274. A bio-herbicide to control *Poa annua*  
 a). Smolder (*Alternaria destruens*)  
 b). Woad Warrior (*Puccinia thaspeos*)



- c). Sarritor (*Sclerotinia minor*)  
**d). Camperico (*Xanthomonas campestris*)**
- Q.275. If 1.35 kg/ha of fluchloralin is to be applied, Basalin 45 SL required is  
**a). 3 litre**  
 b). 2 litre  
 c). 1.35 litre  
 d). 2.7 litre
- Q.276. Amount of Alachlor 50% EC for spraying 12 ha maize field (given the dose 1.5 kg ai/ha)  
**a). 36 kg**  
 b). 18 kg  
 c). 54 kg  
 d). 12 kg
- Q.277. Amount of Topic 10% for 4000 m<sup>2</sup> if rate of clodinafop is 60 g/ha.  
 a). 600 g  
 b). 480 g  
 c). 300 g  
**d). 240 g**
- Q.278. Amount of 2,4-D amine salt at 10 ppm for a pond measuring 40mx20mx5m  
 a). 0.4 kg  
 b). 400 kg  
**c). 40 kg**  
 d). 4 kg
- Q.279. Herbicidal control for isoproturon resistance *Phalaris minor* in wheat  
 a). Sulfosulfuron 25 g/ha  
 b). Clodinafop-propargyl 60 g/ha  
 c). Penoxaden 50 g/ha  
**d). All**
- Q.280. A broad-leaf herbicide in wheat  
 a). Carfentrazone – ethyl 20 g/ha  
 b). Metsulfuron – methyl 4 g/ha  
 c). 2,4-D 500 g/ha  
**d). All**
- Q.281. A post-emergence herbicide in Soybean  
 a). Pendimethalin 1.2 kg/ha  
**b). Quazalofop – ethyl 60 g/ha**  
 c). Fluchloralin 0.9 kg/ha  
 d). Thiobencarb 1.50 kg/ha
- Q.282. Herbicidal control for *Lantana*  
**a). Glyphosate**  
 b). Atrazine  
 c). Pendimethalin  
 d). Alachlor
- Q.283. Marginal cost refers to  
 a). Additional cost from taking a course of action  
 b). Increase in cost accompanies a unit increase in output  
 c). Cost of producing one more unit of a good  
**d). All**
- Q.284. Net returns  
 a). Gross return – Fixed cost – Variable cost  
 b). Gross return – Variable cost  
 c). Gross return – Fixed cost  
 d). Gross return – Total cost  
 i) a & b, ii) a & c, iii) **a & d**, iv) b & d
- Q.285. The most productive treatment based on weed index values  
 a). WI = 24.2  
 b). WI = 2.2  
 c). WI = -24.2  
 d). WI = -2.2
- Q.286. If relative frequency, abundance and density values are 6, 5 and 4, respectively, then summed dominance ratio is  
 a). 15  
**b). 5**  
 c). 7.5  
 d). 3
- Q.287. Weed intensity if number of weeds is 110/m<sup>2</sup> and wheat plants are 90/m<sup>2</sup>.  
 a). **55%**  
 b). 110%  
 c). 22.5%  
 d). 77.5%
- Q.288. Weed control index if weed dry weight of a treatment is 200 g/m<sup>2</sup> and that of weed check was 600 g/m<sup>2</sup>  
 a). 33.3%  
**b). 66.7%**  
 c). 25%  
 d). None of these
- Q.289. If gross and net return of a treatment are INR 51000 and INR 34000/ha, respectively, B:C will be  
 a). 1.67:1  
 b). 3:1  
 c). **2:1**  
 d). 1:1
- Q.290. If cost of the herbicide is INR 1000 and application cost is INR 500 and net return over weedy is INR 15000, MBCR will be  
 a). 35  
 b). 25  
 c). 15  
**d). 10**
- Q.291. The most common weed in wheat  
 a). ***Avena ludoviciana***  
 b). *Echinochloa colona*  
 c). *Panicum dichotomiflorum*  
 d). *Eleusine indica*

- Q.292. A common weed of lowland rice  
 a). Phalaris minor  
 b). Avena fatua  
 c). **Monochoria vaginalis**  
 d). Lolium temulentum
- Q.293. A nitrogen fixing weed species in wheat  
 a). Lathyrus aphaca  
 b). Medicago denticulata  
 c). Vicia sativa  
 d). **All**
- Q.294. A weed escape/resist pre-emergence atrazine application in maize under mid hill conditions of Himachal Pradesh  
 a). Ageratum conyzoides  
 b). Commelina benghalensis  
 c). Brachiaria ramosa  
 d). **All of the above**
- Q.295. A weed not controlled by clodinafop-propargyl in wheat  
 a). **Poa annua**  
 b). Phalaris minor  
 c). Avena ludoviciana  
 d). Lolium temulentum
- Q.296. Weed species which can tolerate solarisation effect  
 a). Phalaris minor  
 b). **Sorghum halepense**  
 c). Alopecurus myosuroides  
 d). Lolium temulentum
- Q.297. A deep rooted hygrophilous perennial  
 a). Phragmites  
 b). Equisetum  
 c). Juncus  
 d). **All**
- Q.298. Pendimethalin is an effective treatment for weed control in  
 a). Brinjal, tomato, chillies etc  
 b). Cabbage and cauliflower  
 c). Onion and garlic  
 d). **All**
- Q.299. Pendimethalin an effective herbicidal treatment in  
 a). Gladiolus  
 b). Gerbera  
 c). Tuberos  
 d). **All**
- Q.300. Three-phased integrated technology including cutting, spray of glyphosate and land utilization as per its capability for the management of *Lantana camara* was developed at  
 a). Jabalpur, MP  
 b). **Palampur, HP**  
 c). Jaipur, Rajasthan  
 d). Hisar, Haryana
- Q.301. Each year an awareness week is organized by DWR Jabalpur, an ICAR Institute in reference to which of the weed  
 a). *Lantana camara*  
 b). *Chromolaena adenophorum*  
 c). ***Parthenium hysterophorus***  
 d). *Imperata cylindrica*
- Q.302. Directorate of Weed Research is situated at  
 a). **Jabalpur, MP**  
 b). Karnal, Haryana  
 c). Jhansi, UP  
 d). Navsari, Gujarat
- Q.303. A herbicide for controlling weeds in grassland and pastures  
 a). 2,4-D  
 b). Carfentrazone  
 c). **Metsulfuron-methyl**  
 d). **All**
- Q.304. Herbicidal control of pre-established thatch grass (*Imperata cylindrical*) control in tea orchard  
 a). **Glyphosate + 2,4-D**  
 b). Oxyflourfen + 2,4-D  
 c). Diuron + 2,4-D  
 d). Paraquat + 2,4-D
- Q.305. Chemical control of *Parthenium hysterophorus*  
 a). Metsulfuron methyl  
 b). Metribuzin  
 c). Atrazine  
 d). **All**
- Q.306. The 25<sup>th</sup> Asian Pacific Weed Science Society Conference (October 13-16, 2015) was held at  
 a). **Hyderabad, India**  
 b). Colombo, Sri Lanka  
 c). Seoul, South Korea  
 d). Brisbane, Australia
- Q.307. The Asian Pacific Weed Science Society (APWSS) was founded in  
 a). **1667**  
 b). 1985  
 c). 1951  
 d). 1992
- Q.308. National Research Centre for Weed Science (NRCWS), now Directorate of Weed Research (DWR) Jabalpur came into existence on  
 a). 22 April, 1982  
 b). 22 April, 1985  
 c). **22 April, 1989**  
 d). 22 April, 1997
- Q.309. The Founder Director of NRCWS, now DWR Jabalpur was  
 a). **Dr V.M. Bhan**

- b). Dr V.N. Saraswat  
 c). Dr. N.T. Yaduraju  
 d). Dr. A.R. Sharma
- Q.310. Indian Society of Weed Science was founded in  
 a). 1958  
 b). **1968**  
 c). 1989  
 d). 1997
- Q.311. The international Weed Science Society (IWSS) was formed in  
 a). 1955  
 b). 1968  
 c). **1975**  
 d). 1985
- Q.312. The official peer-reviewed Journal of the EWRS (European Weed Research Society) is  
 a). Journal of Crop and Weed  
 b). **Weed Research**  
 c). Weed Science  
 d). Weed Biology and Management
- Q.313. Weed Science of America is publishing which of the Journals  
 a). Weed Science  
 b). Weed Technology  
 c). Invasive Plant Science and Management  
 d). **All the above**
- Q.314. When NRCWS Jabalpur was upgraded to Directorate of Weed Science Research (DWSR)  
 a). 2005  
 b). **2009**  
 c). 2011  
 d). 2014
- Q.315. When DWR (Directorate of Weed Research) renamed from DWSR (Directorate of Weed Science Research)  
 a). 2011  
 b). 2013  
 c). **2014**  
 d). 2016
- Q.316. Besides isoproturon resistance in *P. minor*, other cases of herbicide resistance reported in India are  
 a). *Poa annua*  
 b). *Brachiaria ramosa*  
 c). *Commelina sp*  
 d). **None of the above**
- Q.317. The earliest attempt to control weeds by herbicides was made in 1937 in Punjab to control *Carthamus oxyacantha* by using  
 a). Sulfosulfuron  
 b). Atrazine  
 c). **Sodium arsenate**  
 d). 2,4-D
- Q.318. 2,4-D was first tested in India in  
 a). 1950  
 b). **1946**  
 c). 1943  
 d). 1942
- Q.319. Scheme for testing the field performance of herbicides in rice, wheat and sugarcane in different states of India by ICAR was initiated in  
 a). 1948  
 b). **1952**  
 c). 1956  
 d). 1960
- Q.320. A widely used pre-plant herbicide in conservation agricultural systems  
 a). Pendimethalin  
 b). Trifluralin  
 c). **Glyphosate**  
 d). Fluchloralin
- Q.321. Established at Hisar in 1968, who was the founder President/Secretary of ISWS  
 a). **Dr. MK Moolani**  
 b). Dr. RK Malik  
 c). Dr. VM Bhan  
 d). Dr. RS Paroda
- Q.322. The first person who used the term weed  
 a). **Jethro Tull**  
 b). Liebig  
 c). James Hampshire  
 d). None of these
- Q.323. The weed used as a fence  
 a). Bermuda grass  
 b). Quack grass  
 c). **Prickly pear**  
 d). Digitaria
- Q.324. A troublesome weed of water body  
 a). Water lilly  
 b). Lotus (*Nelumbo sp*)  
 c). Water hyacinth  
 d). **All the above**
- Q.325. Number of weed species identified in the world  
 a). 30  
 b). 300  
 c). 3000  
 d). **30000**
- Q.326. Complete crop failure is caused in which of the following crops  
 a). Vegetables  
 b). Upland rice  
 c). **both a and b**  
 d). Wheat
- Q.327. Which of the weeds make harvesting difficult  
 a). Canada thistle  
 b). Cocklebur  
 c). Wild safflower  
 d). **All of these**

- Q.328. Present in sweet clover, an anti-blood coagulant in animals is named as \_\_\_\_\_  
 a). **Dicumarin**  
 b). Swainsonne  
 c). Lantradene A  
 d). None of these
- Q.329. Established at Hisar in 1968, who was the founder President/Secretary of ISWS  
 a). Amaranthus sp  
 b). Chenopodium  
 c). Cirsium sp  
 d). **All of these**
- Q.330. Which weed induces asthma in humans due to pollen spread?  
 a). Ambrosia artemissifolia  
 b). Franseria sp  
 c). **Both a and b**  
 d). None of these
- Q.331. Weed responsible for dermal allergies on human is  
 a). Carrot grass  
 b). Common rag weed  
 c). Sneeze weed  
 d). **All of these**
- Q.332. Aquatic weed act as alternate host and vectors of malaria, yellow and dengue fever is  
 a). Water lettuce  
 b). Salvinia  
 c). Alligator weed  
 d). **All of these**
- Q.333. Which of the following weed is used in cottage industry for making rope and thatch material?  
 a). *Typha*  
 b). *Saccharum* sp  
 c). **Both a and b**  
 d). Lantana
- Q.334. Weed species which has nematicidal property  
 a). Crotonaria  
 b). Parthenium  
 c). Eichhornia sp  
 d). **All of these**
- Q.335. An alternate host of root knot nematode in vegetables  
 a). Brassica kaber  
 b). Cleome viscosa  
 c). Carthamus oxyacantha  
 d). **All of these**
- Q.336. In paddy field which of the following controls weeds effectively?  
 a). Puddling  
 b). Transplanting  
 c). Manuring  
 d). **Both a and b**
- Q.337. Which of the weed act as alternate host on gram caterpillar of redgram?  
 a). Amaranthus  
 b). Datura  
 c). **Both a and b**  
 d). None of these
- Q.338. Weed which reduces the Juice quality of sugarcane is  
 a). Aeginitia indica  
 b). Striga litura  
 c). **Both a and b**  
 d). None of these
- Q.339. A diocious weed  
 a). Canada thistle  
 b). Eel grass  
 c). Amaranthus sp  
 d). **Both a and b**
- Q.340. A weed producing > 1 lakh seeds/plant  
 a). Amaranthus sp  
 b). Portulaca sp  
 c). **Both a and b**  
 d). Cascutta sp
- Q.341. an ephemerals  
 a). Phyllanthus niruri  
 b). Phyllanthus fraternus  
 c). **Both a and b**  
 d). Commelina benghalensis
- Q.342. The weed producing smallest seed  
 a). **Cuscuta** sp  
 b). *Xanthium* sp  
 c). *Amaranthus* sp  
 d). *Commelina* sp
- Q.343. The weed propagated through rhizomes/ root stock  
 a). Agropyron repens  
 b). Cynodon dactylon  
 c). Typha angustata  
 d). **All of these**
- Q.344. The weed propagated through bulbils  
 a). Allium sp  
 b). Oxalis latifolia  
 c). Both a and b  
 d). None of these
- Q.345. Hydrilla verticillata is propagated by  
 a). Root stocks  
 b). Runners  
 c). **Turions**  
 d). Bulbils
- Q.346. A weed acting as a satellite weed  
 a). Avena fatua  
 b). Cuscuta sp  
 c). Cichorium sp  
 d). **All of these**
- Q.347. The bird which disperses *Lantana camara*  
 a). Indian Myha  
 b). Chinese turtle dove  
 c). Parrot  
 d). **Both a and b**
- Q.348. A weed brought as ornamental  
 a). Water hyacinth  
 b). Lantana  
 c). **Both a and b**  
 d). None of these
- Q.349. A weed of drylands  
 a). Tribulus terrestris  
 b). Argemone mexicana  
 c). Euphorbia hirta  
 d). **All of these**

- Q.350. A weed selective under irrigated conditions  
 a). Commelina benghalensis  
 b). Trianthema sp  
 c). **Brachiaria ramosa**  
 d). **All of these**
- Q.351. A dominant weed of puddle paddy soil  
 a). Echinochloa  
 b). Caesulina  
 c). Eclipta sp  
 d). **All of these**
- Q.352. A salt tolerant weed  
 a). Chenopodium murale  
 b). Polygonum sp  
 c). Distichalis stricta  
 d). *All of these*
- Q.353. October sowing of berseem/lucerne promotes the growth of  
 a). Amaranthus sp  
 b). Trianthema sp  
 c). **Both a and b**  
 d). None of these
- Q.354. November sown berseem crop induces the weed  
 a). Chenopodium sp  
 b). Anagallis sp  
 c). Vicia sp  
 d). **All of these**
- Q.355. In which weed seeds mature after uprooting the plant?  
 a). Stellaria media (Chick weed)  
 b). Portulaca oleracea  
 c). **Both a and b**  
 d). None of these
- Q.356. A biennial weed  
 a). Alternanthera sp  
 b). Cichorium intybus  
 c). Cirsium vulgare  
 d). **All of these**
- Q.357. In which of the weed the underground system is located deeper than one metre?  
 a). Cyperus rotundus  
 b). Sorghum halepense  
 c). Pluchea lanceolata  
 d). **All of these**
- Q.358. Which of the following is a monocot weed but broad-leaved plant?  
 a). Eichhornia crasipus  
 b). Commelina banghalensis  
 c). Cynnotis axillaris  
 d). **All of these**
- Q.359. Which of the following is a brush weed  
 a). Lantana  
 b). Prospopis (Mesquite)  
 c). Zizyphus rotundifolia  
 d). **All of these**
- Q.360. A parasite in lucerne  
 a). **Cuscuta** sp  
 b). Orobanche sp  
 c). Striga sp  
 d). All of these
- Q.361. An associated weed in lucerne and potato  
 a). Chicory  
 b). Swine grass (Coronopus didymus)  
 c). Striga  
 d). **Both a and b**
- Q.362. Mimicry weed in wheat field  
 a). Phalaris minor (Canary grass)  
 b). Wild oat  
 c). **Both a and b**  
 d). None of these
- Q.363. Mimicry weed in rice field is  
 a). Wild rice (Oryza sativa var fatua)  
 b). Echinochloa colona  
 c). Echinochloa crusgalli  
 d). **All of these**
- Q.364. Weed move from its origin to new environment is called  
 a). Introduced weed  
 b). **Alien weed**  
 c). Antrophytes  
 d). All of these
- Q.365. A weed native of America  
 a). Chromolaena odorata  
 b). Clidemia hirta  
 c). Cocklebur  
 d). **All of these**
- Q.366. The origin of puncture vine is  
 a). **Mediterranean region**  
 b). Tropical America  
 c). Srilanka  
 d). India
- Q.367. A recent noxious weed of Tamil Nadu  
 a). **Wild brinjal**  
 b). Striga  
 c). Lantana  
 d). Cuscutta
- Q.368. Industrial weeds can be controlled by using  
 a). Non selective herbicides  
 b). Selective herbicides  
 c). Soil sterilants  
 d). **Both a and c**
- Q.369. Parthenium is a very serious problem in  
 a). Tamil Nadu  
 b). Rajasthan  
 c). Jammu and Kashmir  
 d). **Maharastra**
- Q.370. Most dominant factor influencing weed composition in a field is  
 a). **Soil moisture**  
 b). Soil type  
 c). Soil texture  
 d). Soil temperature
- Q.371. Most problematic weed of the world spread to 92 countries is  
 a). Cyperus rotundus  
 b). Cynodon dactylon  
 c). Eleusine indica  
 d). Sorghum halepense
- Q.372. Test weight of barnyard grass seeds is about g  
 a). 20  
 b). 10  
 c). **1.4**  
 d). 15

- Q.373.** Test weight (g) of *Phalaris minor* is  
 a). **2**  
 b). 10  
 c). 15  
 d). 20
- Q.374.** Dormancy mechanism in wild oats  
 a). Innate  
 b). Induced  
 c). Enforced  
 d). **All of these**
- Q.375.** Common weed in pasture land  
 a). *Tephrosia procumbens*  
 b). *Boerhaavia diffusa*  
 c). **Both a and b**  
 d). None of these
- Q.376.** Submerged weed  
 a). *Hydrilla verticillata*  
 b). *Nagar sp*  
 c). *Utricularia stellaris*  
 d). **All of these**
- Q.377.** Growth of the weed is reduced due to root exudates of maize  
 a). *Chenopodium album*  
 b). *Amaranthus retroflexus*  
 c). **Both a and b**  
 d). None of these
- Q.378.** A basophile weed  
 a). Alkali grass (*Puccinallia sp*)  
 b). Quack grass  
 c). *Amaranth sp*  
 d). **Both a and b**
- Q.379.** Acidophile weed  
 a). *Digitaria sanguinalis*  
 b). *Borreria sp*  
 c). **Both a and b**  
 d). None of these
- Q.380.** The weed having more dormancy  
 a). *Dactyloctenium sp*  
 b). *Lathyrus sp*  
 c). Field bind weed  
 d). **All of these**
- Q.381.** Kharif annual weed  
 a). *Ammannia bacifera*  
 b). *Cyperus difformis*  
 c). *Ludwigia parviflora*  
 d). **All of these**
- Q.382.** A multi-season annual weed  
 a). *Echinochloa colona*  
 b). *Eclipta alba*  
 c). *Phyllanthus nirurii*  
 d). **All of these**
- Q.383.** A simple perennial weed  
 a). *Ipomoea carnea*  
 b). *Lantana camara*  
 c). **Both a and b**  
 d). None of these
- Q.384.** Weed eradication is rare but practiced in  
 a). *Lantana*  
 b). *Saccharum sp*  
 c). *Striga sp*  
 d). **All of these**
- Q.385.** Blind hoeing with bullock/tractor drawn spike-tooth harrow successfully controls weeds in  
 a). Potato  
 b). Sugarcane  
 c). Maize  
 d). **Both a and b**
- Q.386.** Implements commonly used in dry farming areas  
 a). Sweep  
 b). Blade harrow  
 c). Spike tooth harrow  
 d). **Both a and b**
- Q.387.** Cultural practice reducing weed population  
 a). Arresting flowering  
 b). Deep ploughing  
 c). Puddling  
 d). **All of these**
- Q.388.** The weed less responsive to nitrogen  
 a). *Cyperus*  
 b). *Cynodon*  
 c). **Both a and b**  
 d). None of these
- Q.389.** Digging reduces population of  
 a). ***Cynodon sp***  
 b). *Amaranthus sp*  
 c). *Convolvulus sp*  
 d). None of these
- Q.390.** A preventive method of weed control  
 a). Using weed free seeds  
 b). Using clean machineries  
 c). Following quarantine measures  
 d). **All of these**
- Q.391.** An eradication method of weed control  
 a). Killing underground parts of weeds by tillage  
 b). Using soil sterilants  
 c). Repeated foliar application on perennial weeds  
 d). **All of these**
- Q.392.** Ammonium nitrate acts as chemical stimulant to control  
 a). Wild oats  
 b). *Eleusine indica*  
 c). *Echinochloa colona*  
 d). **All of these**
- Q.393.** Trap crop for striga is  
 a). Sunflower  
 b). Cotton  
 c). Cowpea  
 d). **All of these**
- Q.394.** Trap crop for *Orobanche*  
 a). Linseed  
 b). Sunhemp  
 c). Chillies  
 d). **All of these**
- Q.395.** Biological weed control is not successful because  
 a). Not possible to eradicate weed  
 b). Bioagents are weed specific  
 c). Controlled only introduced weeds  
 d). **All of these**

- Q.396. Important quality of bioagents  
 a). Attack only host plant  
 b). Free from predators/parasites and quick adoption to new environment  
 c). Able to kill reproductive parts of weed  
 d). **All of these**
- Q.397. Insect to control Lantana  
 a). Ophimoyia sp (seed fly)  
 b). Teleonania sp (Lace bug)  
 c). Theola sp (Butterfly)  
 d). **All of these**
- Q.398. Klamath weed (*Hypericum perforatum*) is controlled by an insect  
 a). *Chrysolina hyperici* (Beetle)  
 b). *Chrysolina gamellata* (Beetle)  
 c). *Agrilus hyperici* (Root borer)  
 d). **All of these**
- Q.399. Which is soil acting herbicide?  
 a). Fluchloralin  
 b). EPTC  
 c). **Both a and b**  
 d). Glyphosate
- Q.400. Which is foliage acting herbicide?  
 a). Glyphosate  
 b). Paraquat  
 c). EPTC  
 d). **Both a and b**
- Q.401. A herbicide both soil and foliage active  
 a). 2,4-D  
 b). Isoproturon  
 c). Diuron  
 d). **All of these**
- Q.402. Typically pre-plant soil incorporated herbicide  
 a). Fluchloralin  
 b). Trifluralin  
 c). EPTC  
 d). **All of these**
- Q.403. Early post-emergence treatment is followed in  
 a). Potato  
 b). Sugarcane  
 c). **Both a and b**  
 d). Rice
- Q.404. Commonly used post-emergence herbicide in wheat  
 a). 2,4-D  
 b). Isoproturon  
 c). Atrazine  
 d). **Both a and b**
- Q.405. In which herbicide, micro-capsulation formula is commercially available  
 a). Alachlor  
 b). Metachlor  
 c). **Both a and b**  
 d). Atrazine
- Q.406. Commonly used wetting agent for herbicide spray in India  
 a). Soap solution  
 b). Teepol  
 c). Uphar  
 d). **All of these**
- Q.407. Herbicide spray drift can be reduced by  
 a). Increasing the droplet size  
 b). Forming a foam  
 c). Making invert emulsion  
 d). **All of these**
- Q.408. The herbicide perform better in sunny days  
 a). 2,4-D  
 b). Paraquat  
 c). Simazine  
 d). **All of these**
- Q.409. Herbicide effectively controls *Saccharum* and *Sorghum halepense* only at pre-flowering stage  
 a). Diuron  
 b). Atrazine  
 c). Amitrole  
 d). **Both a and c**
- Q.410. Which of the herbicides are classified as highly toxic  
 a). Paraquat and diquat  
 b). DNBP and DNOC  
 c). 2,4,5-T and PCP  
 d). **All of these**
- Q.411. Which is the less toxic herbicide?  
 a). Atrazine  
 b). 2,4-D  
 c). Simazine  
 d). **All of these**
- Q.412. Which is the widely used herbicide to control broadleaved weeds in winter grains?  
 a). 2,4-D  
 b). MCPA  
 c). **Both a and b**  
 d). Atrazine
- Q.413. Herbicide deactivation of selectivity in plants is achieved by  
 a). Herbicide metabolism  
 b). Herbicide conjugation  
 c). **Both a and b**  
 d). None of these
- Q.414. Reverse metabolism induce the susceptibility to weeds by  
 a). 2,4-D  
 b). MCPA  
 c). **Both a and b**  
 d). None of these
- Q.415. Which of the following physiological process influence the herbicide selectivity?  
 a). Absorption and translocation  
 b). Deactivation  
 c). Phytotoxicity  
 d). **All of these**
- Q.416. Besides NA and R 25788, other safeners to counteract the effect of carbamate herbicide is  
 a). CGA 43089  
 b). CGA 92194  
 c). **Mon 4606**  
 d). **All of these**
- Q.417. Classic example for success of breeding herbicide resistant variety is  
 a). Canola-rape variety resistant to triazine

- b). Secale cereal resistant to paraquat  
 c). Tracy-M soybean variety resistant to metribuzin  
 d). **All of these**
- Q.418. 2,4-D was developed during 1945 in USA by  
 a). P.W. Zimmerman  
 b). A.E. Hitchcock  
 c). **Both a and b**  
 d). None of these
- Q.419. MCPA was developed during 1945 in England by  
 a). W.G. Templeman  
 b). W.A. Sexton  
 c). **Both of them**  
 d). None of these
- Q.420. First introduced organic herbicide in the world is  
 a). **Dinoseb**  
 b). 2,4-D  
 c). MCPA  
 d). All of these
- Q.421. Herbicide commonly available as fumigant is  
 a). Methyl bromide  
 b). Metham  
 c). Allyl alcohol  
 d). **All of these**
- Q.422. Herbicides of which group are generally incorporated in soil?  
 a). Carbamate  
 b). Dinitroaniline  
 c). Triazine  
 d). **Both a and b**
- Q.423. Which ultra low volume sprayer is used for controlled droplet application  
 a). Herbi sprayer  
 b). Micron herbi sprayer  
 c). **Both a and b**  
 d). None of these
- Q.424. Direct contact herbicide application can be achieved by  
 a). Re-circulating sprayer  
 b). Weed wick wiper  
 c). Roller applicator  
 d). **All**
- Q.425. Inhibition of electron transfer in photosystem II is the reason for herbicide action in  
 a). Nitriles  
 b). Ureas  
 c). **Both a and b**  
 d). None
- Q.426. Weed seeds are abundant at a depth of \_\_\_ cm  
 a). **1-1.5**  
 b). 3  
 c). 10  
 d). 20
- Q.427. At sub lethal dose which of the herbicides improves colour of the apple  
 a). 2,4-D  
 b). **2,4,5-T**  
 c). MCPA  
 d). All of these
- Q.428. Herbicide residue in soil are undesirable because of  
 a). Injury to sensitive crops  
 b). Accumulate in the produce  
 c). Inhibit soil micro-organisma  
 d). **All**
- Q.429. Persistence herbicides pose hazard in soil when  
 a). High persistence herbicides are used  
 b). Crop failure necessitate re-planting  
 c). Susceptible crop follows a short crop  
 d). **All**
- Q.430. Which type of herbicides act as growth promoter under sub-lethal dose  
 a). Phenoxy  
 b). Triazines  
 c). Ureas and uracils  
 d). **All**
- Q.431. Application of organophosphorus group of pesticides along with which herbicides cause injury to crops  
 a). Triazines  
 b). Ureas  
 c). **Both**  
 d). None
- Q.432. Effective rate (kg/ha) of 2,4-D for weed control  
 a). 0.2-0.5  
 b). **0.5-1.0**  
 c). 2  
 d). 5
- Q.433. Which formulation of 2,4-D has fastest absorption by crop plants?  
 a). **Ethyl ester**  
 b). Dimethylamine  
 c). Na salt  
 d). All
- Q.434. Which of the weeds are rapidly controlled by MCPA than 2,4-D  
 a). Nutsedge  
 b). **Canada thistle**  
 c). **Both**  
 d). None
- Q.435. The major consumer of dalapon in India  
 a). Coffee planters  
 b). Jute growers  
 c). **Both**  
 d). None
- Q.436. How many times atrazine is more soluble than simazine?  
 a). 1  
 b). 2  
 c). 4  
 d). **6**
- Q.437. A very potent herbicide for the control of perennial, broad-leaved weed and brushes  
 a). Atrazine  
 b). 2,4-D  
 c). **Picloram**  
 d). Amitrole



- Q.438. Which is the contact, non-selective and zero persistent herbicide in soils?  
 a). **Paraquat**  
 b). Atrazine  
 c). 2,4-D  
 d). Bromacil
- Q.439. Largest pre-emergence herbicide for weed control in citrus and pineapple orchards  
 a). Atrazine  
 b). **Metham**  
 c). Allyl  
 d). All
- Q.440. Alachlor is an effective pre-emergence herbicide in \_\_\_\_\_  
 a). Maize  
 b). Soybean  
 c). **Both**  
 d). None
- Q.441. Butachlor has to be applied to control weeds in upland rice at  
 a). Immediately after sowing  
 b). 2 DAS  
 c). 6-8 DAS  
 d). **15 DAS**
- Q.442. Propanil has to be applied to rice crop at  
 a). One leaf stage  
 b). **2-3 leaf stage**  
 c). 4 leaf stage  
 d). None of these
- Q.443. 2,4-d to wheat is effective when it is applied at  
 a). 15 DAS  
 b). 20-25 DAS  
 c). **25-30 DAS**  
 d). 45 DAS
- Q.444. 2,4-D is injurious to  
 a). Cotton  
 b). Mustard  
 c). Chickpea  
 d). **All**
- Q.445. Isoproturon to wheat is effective at  
 a). 15 DAS  
 b). **25-30 DAS**  
 c). 45- DAS  
 d). 5 DAS
- Q.446. A broad-spectrum herbicide in groundnut  
 a). **Fluchloralin**  
 b). Atrazine  
 c). Alachlor  
 d). 2,4-D
- Q.447. Selective herbicide under cotton + blackgram intercropping system  
 a). Diuron  
 b). **Oxadiazon**  
 c). Fluchloralin  
 d). All
- Q.448. A herbicide tolerant to lucerne and can be applied mixed with seed is  
 a). **EPTC**  
 b). Benefix  
 c). Pendimethalin  
 d). None of these
- Q.449. Herbicide which increase tuber size besides weed control in potato  
 a). **EPTC**  
 b). Fluchloralin  
 c). Pendimethalin  
 d). Atrazine
- Q.450. Application of which herbicide at 5-10% of emergence in potato is more common in India?  
 a). Paraquat  
 b). Diquat  
 c). EPTC  
 d). **Both a and b**
- Q.451. a very successful pre-emergence herbicide in banana in India  
 a). Atrazine  
 b). **Alachlor**  
 c). Glyphosate  
 d). Dalapon
- Q.452. The most commonly used herbicide in rubber plantation  
 a). Amitrole T  
 b). Paraquat  
 c). **Both**  
 d). None
- Q.453. Present day versatile herbicide to control difficult, perennial, broadleaved weeds and brushes in grasslands  
 a). Alachlor  
 b). Atrazine  
 c). **Picloram**  
 d). All
- Q.454. In India, Striga is a problem of  
 a). Sorghum  
 b). Pearl millet  
 c). **Both**  
 d). None
- Q.455. The most common species of Typha in India is  
 a). **T. angustata**  
 b). T. latifolia  
 c). T. elephantina  
 d). All
- Q.456. Trap crop for Cuscuta sp  
 a). Small grains  
 b). Chickpea  
 c). Mustard  
 d). **All**
- Q.457. A noxious weed of South India  
 a). Cynodon  
 b). Cyperus  
 c). **Wild brinjal**  
 d). All
- Q.458. Commonly used algicide  
 a). Copper sulphate pentahydrate  
 b). Simazine  
 c). Diuron  
 d). **All**
- Q.459. Commonly used chemical fertilizer to control submerged weeds and water bloom non-selectively  
 a). **Anhydrous ammonia**

- b). Ammonium sulphate  
c). Ammonium nitrate  
d). Urea
- Q.460. Native of water hyacinth is  
a). Australia  
b). **Brazil**  
c). India  
d). China
- Q.461. Allelo-chemicals interfere with survival and growth of  
a). Neighbouring plants  
b). succeeding plants  
c). The donor plants themselves  
d). **All**
- Q.462. Auto allelopathy existed in  
a). Wheat  
b). alfalfa  
c). cowpea  
d). **all**
- Q.463. Root exudates of wheat and oats which has detrimental effects on wild mustard contain  
a). **Phenolic acid**  
b). Alkaloids  
c). Sulphides  
d). Lactones
- Q.464. The donor plants release allelochemicals in the immediate environment as  
a). volatiles  
b). root exudates  
c). **microbial decomposition products**  
d). **All**
- Q.465. A shortest time span in the life cycle of a crop when weeding results in highest economic returns  
a). Economic threshold  
b). **Critical period**  
c). Competitive threshold  
d). None of these
- Q.466. The competitive crop requiring weed free period of about 3-4 weeks  
a). **Soybean**  
b). Carrot  
c). Garlic  
d). Onion
- Q.467. The effective solution to manage weed shifts  
a). Herbicide combinations  
b). Herbicide rotations  
c). Crop rotations  
d). **All**
- Q.468. From site of uptake to site of action, fluzifop-butyl move in  
a). water conducting stream  
b). sap conducting stream  
c). **Both**  
d). None
- . Amino acid synthesis inhibitors a).  
**Sulfonyl ureas**  
b). Amides  
c). Triazines  
d). all
- . Herbicides disrupting cell membranes a).  
Bipyridilliums  
b). diphenylethers  
c). **Both**  
d). Ureas
- . The \_\_\_\_\_ selectivity is an example of true selectivity  
a). Chronological  
b). **Biochemical**  
c). Chemical  
d). None
- . Mid morning application of which of the herbicides is better than its evening application  
a). Butachlor  
b). Alachlor  
c). Glyphosate  
d). **Paraquat**
- . The herbicide susceptible to photodecomposition  
a). Trifluralin  
b). Ethalfuralin  
c). Fluchloralin  
d). **All**
- Which of the following is an activator adjuvant  
a). Surfactant  
b). Wetting agent  
c). penetrants  
d). **All**
- The most common mechanism of herbicide resistance is  
a). Enhanced metabolism  
b). **Altered target site**  
c). Sequestration  
d). All
- A synergistic herbicide combination a).  
2,4-D + Docamba  
b). 2,4-D + atrazine  
c). Atrazine + alachlor  
d). **All**
- The first non-transgenic HRC such as triazine resistant canola was developed in  
a). 1995  
b). 2000  
c). 1997  
d). **1984**
- Which of the safeners counteract inhibition of synthesis of very long chain fatty acids in rice by pretilachlor and metolachlor  
a). Fenclorim  
b). Benoxacor  
c). Fluxofenim  
d). **All**
- Which of the following pre-emergence herbicides can be applied with herbicides that have efficacy with emerged weeds  
a). Chloracetamide  
b). Thiocarbamates  
c). Dinitroanilines  
d). **All**

Allelochemicals are mostly present in which of the following plant parts

- a). Flowers and fruits
- b). Leaves and stems
- c). Roots
- d). **All**

A period in the ontogeny of crop at which maximum crop weed competition occurs is called

- a). Economic threshold
- b). Gain threshold
- c). Competitive threshold
- d). **None**

A non-competitive crop requiring weed free period of three or more months

- a). Maize
- b). Rice
- c). Soybean
- d). **Onion**

With poor weed management, a field could shift to

- a). Predominant weed species
- b). Species not effectively controlled
- c). Species not responded to control measures
- d). **All the above**

When the weeds are under pressure, the herbicides enter the leaf

- a). **less readily**
- b). more readily
- c). do not enter
- d). entry not affected

Growth regulating herbicides that act similar to that of endogenous auxin (IAA)

- a). Benzoic acid
- b). pyridine carboxylic acid
- c). quinoline carboxylic acid
- d). **All**

Herbicides inhibiting amino acid synthesis).

- a). Imadazolinone
- b). Sulfonamide
- c). amino acid derivatives
- d). **all**

Selectivity achieved due to changes in functional group is called

- a). Physical
- b). Biological
- c). **Chemical**
- d). Chronological

Coupling of intact herbicide molecules with sugars in living plants

- a). Metabolism
- b). reverse metabolism
- c). **Conjugation**
- d). None of these

Herbicide loss by volatilization increases as which of the following increases

- a). Vapour pressure
- b). Soil moisture content
- c). Soil temperature
- d). **all**

An utility modifier is which of the following).

- a). Emulsifier
- b). Antifoam agents
- c). dispersants
- d). **All**

A concentrated band of a herbicide about 7 -10 cm below the soil surface is required to control

- a). *Cyperus rotundus*
- b). *Convolvulus arvensis*
- c). *Oxalis*
- d). **All**

An adsorbant

- a). Activated carbon
- b). lignin byproducts
- c). ion exchange resins
- d). **All**

Prohexadione calcium a plant growth regulator affect efficacy of which of the following

- a). acifluorfen
- b). bentazon
- c). imazethapyr
- d). **None**

The type of research where the researcher look for loopholes in patents or methods to develop products similar to those already in the market is called

- a). **Me-too**
- b). mimic
- c). Emperical
- d). None of these

A prosafener among the following).

- a). Fenclorim
- b). benoxacor
- c). Fluxofenim
- d). **L-oxothiazolidine-4-carboxylate (OTC)**

Herbicide antidote interactions are a).

- a). synergistic
- b). **antagonistic**
- c). Enhancement
- d). None of these

The ecological phenomenon of plant-plant interference

- a). Competition
- b). Allelopathy
- c). **Both**
- d). None

The crops known for autotoxicity).

- a). **Lucerne and wheat**
- b). Berseem and oats
- c). Rice and soybeans
- d). None of these

Allelochemicals liberate through volatilization

- a). **Terpinoid**
- b). Alkaloids
- c). Tannins
- d). Lactones

A natural pre-emergence weed control in turf grass

- a). **Corn gluten meal**

- b). Bialaphos
- c). Sulcotrione
- d). Cinmethylin

The striving of two or more individuals for the same object

- a). Allelopathy
- b). **Competition**
- c). Co-operation
- d). None of these

To compete derived from competere which is a

- a). Greek word
- b). Spanish word
- c). **Latin word**
- d). None of these

A nitrophyll

- a). **Amaranthus**
- b). *Setaria lutescens*
- c). *Digitaria*
- d). *Chenopodium*

A weed accumulate over 550 ppm of Zn in its dry matter

- a). *Digitaria*
- b). ***Setaria lutescens***
- c). *Portulaca*
- d). *Chenopodium*

A potassium lover a).

- Chenopodium*** b).
- Digitaria*
- Amaranthus*
- Setaria*

Having higher phosphorus content a).

- Amaranthus*
- b). *Setaria*
- c). *Chenopodium*
- d). ***Digitaria***

A rectangular hyperbolic relationship between weed density and crop yield is proposed by

- a). Roberts and Bonds (1975)
- b). **Cousens et al (1984&1985)**
- c). Zimdahl 1980
- d). None of these

The sigmoidal relationship between weed density and crop yield was proposed by

- a). **Zimdahl 1980**
- b). Roberts and Bonds (1975)
- c). Cousens et al (1985)
- d). None of these

A curvilinear relationship between weed density and crop yield was reported by

- a). Zimdahl 1980
- b). **Roberts and Bonds (1975)**
- c). Cousens et al (1985)
- d). None of these

Competitive ability of the crops in decreasing order

- a). **barley>rye>wheat >oats**
- b). oats>wheat> rye> barley
- c). rye>barley>oats> wheat
- d). wheat>oats>barley >rye

A herbicide requiring good spray coverage of all foliage for effective control of a weed population

- a). **Paraquat**
- b). Glyphosate
- c). Atrazine
- d). Isoproturon

Through wetting of all foliage is unnecessary with which of the following a). **glyphosate**

- b). paraquat
- c). diquat
- d). None of these

A herbicide move through sap conducting tissue

- a). Paraquat
- b). Diquat
- c). MSMA
- d). **Glyphosate**

A herbicide move through water conducting tissue

- a). Paraquat
- b). DSMA
- c). Glyphosate
- d). **Atrazine**

Dehalogenation is the most common inactivation reaction in which of the following

- a). **Simazine**
- b). Glyphosate
- c). Pendimethalin
- d). Bispyribac

Decarboxylation is most common in a).

- Phenoxy's
- b). Benzoics
- c). **Substituted ureas**
- d). **All**

Hydroxylation is common among a).

- Phenoxy's
- b). Benzoics
- c). **Substituted ureas**
- d). **All**

Dealkylation involving removal of alkyl side chains is common in case of

- a). Triazines
- b). Carbamates
- c). Donitroanilines
- d). **All**

An important benzoic acid herbicide

- a). **Dicamba**
- b). 2,4-D
- c). Atrazine
- d). None of these

A amino acid derivative

- a). Paraquat
- b). **Glyphosate**
- c). 2,4-D
- d). None of these

A lipid inhibitor

- a). Diclofop
- b). Quizalofop
- c). Sethoxydim
- d). **All**

A cell membrane disrupter

- a). Paraquat
- b). Acifluorfen
- c). Difenzoquat
- d). **All**

A pigment inhibitor a).

- Clomazone**
- b). Alachlor
- c). Trifluralin
- d). All

A selectivity achieved due to manipulation of time of application is called a). Biochemical

- b). Chronological**
- c). Chemical
- d). Physical

Tolerance of the rice plants to molinate is due to

- a). Reverse metabolism
- b). Protoplasmic resistance**
- c). Conjugation
- d). Slow translocation

To control broad-leaved weeds in barley, which of the herbicide is most suitable

- a). 2,4-D
- b). Metsulfuron
- c). Alachlor
- d). **Both a and b**

To manage mixed weed flora in barley which of the herbicides is to be applied

- a). 2,4-D
- b). Isoproturon
- c). a and b as tank mix**
- d). None of these

Which of the herbicides can be used in gram crop?

- a). Pendimethalin**
- b). Metolachlor
- c). Fluchloralin
- d). **All**

To manage grassy weed flora in barley which of the herbicides is to be applied

- a). Pendimethalin
- b). Isoproturon**
- c). **a and b**
- d). Metsulfuron

A weed of common use in worships/ prayers/poojas of Hindu ceremonies

- a). *Digitaria sanguinalis*
- b). *Cyperus rotundus*
- c). ***Cynodon dactylon***
- d). *Eleusine indica*

A ceremonial weed

- a). *Asparagus racemosus* (Shatawari)
- b). *Cynodon dactylon* (Dhoob ghaas)
- c). **Both a and b**
- d). *Digitaria sanguinalis*

A ceremonial weed

- a). *Asparagus racemosus* (Shatawari)
- b). *Cynodon dactylon* (Dhoob ghaas)
- c). *Nelumbo nucifera* (Lotus flower)
- d). **All of these**

A ceremonial weed a).

- Cynodon dactylon* b).
- Datura stramonium* c).
- Tagetes* sp
- d). **All of these**

Economic cost is the sum of \_\_\_\_\_

- a). Variable and fixed costs
- b). Variable, fixed and opportunity costs**
- c). Fixed and opportunity costs
- d). Variable, fixed and marginal costs

Marginal cost is defined as \_\_\_\_\_

- a). Cost that arises when the quantity produced changes by one unit
- b). Cost of producing one more unit of a good
- c). Increase in cost that accompanies a unit increase in output
- d). **All the above**

The additional cost from taking a cost of action is called

- a). Total cost
- b). Opportunity cost
- c). Variable cost
- d). **Marginal cost**

A cost independent of the quantity of goods and services produced

- a). Variable cost
- b). **Fixed cost**
- c). Opportunity cost
- d). Marginal cost

The cost of any activity measured in terms of the value of the next best alternative forgone a).

- Economic cost
- b). Variable cost
- c). Opportunity cost**
- d). Marginal cost

If the gross returns from an enterprise are INR 30000 and the net returns INR 20000, the benefit-cost ratio based on net gain would be

- a). 3.0
- b). **2.0**
- c). 1.0
- d). 1.5

If the yield from weed free is 3500 kg and that from weedy 1500 kg/ha, weed index would be a).

- 57.1%**
- b). 133.3%
- c). 45.0%
- d). 25.6%

If the count of *Echinochloa* in weedy check is 70 and that in a treatment 25/m<sup>2</sup>, weed control efficiency will be

- a). 54.3%
- b). **64.3%**
- c). 73.4%
- d). 79.6%

If weed population is 70/m<sup>2</sup> and the crop 140/m<sup>2</sup>, weed intensity would be

- a). **33.3%**
- b). 66.6%
- c). 50%
- d). 73.4%

Out of 50 quadrats studied, if *Echinochloa* is found in 26 quadrats, its frequency of occurrence would be

- a). 13%
- b). 26%
- c). **52%**
- d). 68%

If *Echinochloa* falls in frequency class 'E', the weed community is said to be

- a). Contiguous
- b). Heterogenous
- c). **Homogenous**
- d). Random

In a 100 quadrat study of 1 sqm each *Cyperus rotundus* was found in 80 quadrats with overall of 5640 individuals. The frequency (%), abundance and density ( $m^2$ ) would be

- a). 70.5, 80.0 and 56.4
- b). 56.4, 70.5 and 80.0
- c). **80.0, 70.5 and 56.4**
- d). 80.0, 56.4 and 70.5