

Set No. : 1

Question Booklet No.

RET/16/TEST-B

747

Horticulture

(To be filled up by the candidate by blue/black ball point pen)

Roll No.

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
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Roll No. (Write the digits in words)

Serial No. of OMR Answer Sheet

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 10 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, Bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope.*
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.*
7. *Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).*
11. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet.
12. *Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.*
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

Total No. of Printed Pages : 16

8. A2.

ROUGH WORK

रफ़ कार्य

Research Entrance Test-2016

No. of Questions : 50

Time : 2 Hours

Full Marks : 200

- Note: (1)** This Question Booklet contains **40** Multiple Choice Questions followed by **10** Short Answer Questions.
- (2)** Attempt as many MCQs as you can. Each MCQ carries **3 (Three)** marks. **1 (One)** mark will be deducted for each incorrect answer. **Zero** mark will be awarded for each unattempted question. If more than one alternative answers of MCQs seem to be approximate to the correct answer, choose the closest one.
- (3)** Answer only **5** Short Answer Questions. Each question carries **16 (Sixteen)** marks and should be answered in **150-200** words. Blank **5 (Five)** pages attached with this booklet shall only be used for the purpose. Answer each question on separate page, after writing Question No.

- 01.** Where is the International Rice Research Institute located ?
- | | |
|------------|-------------|
| (1) Manila | (2) Chicago |
| (3) Cairo | (4) Cuttack |
- 02.** Trypsin is basically what ?
- | | |
|----------------------|-------------|
| (1) Fatty acid | (2) Sugar |
| (3) Oligo-nucleotide | (4) Protein |
- 03.** GMO stands for what ?
- (1) Genetically Modified Organisms
 - (2) Genetically Multiplied Organisms
 - (3) Green Modified Organisms
 - (4) Green Modified Orange

04. Which international treaty was documented in 1987 and implemented in 1989, to avoid deleterious effects of ultra- violet radiation owing to ozone layer depletion ?
- (1) Cartagene protocol
 - (2) Montreal protocol
 - (3) Geneva protocol
 - (4) Antartica Environmental protocol
05. The tissue bearing dead cells is ?
- (1) Collenchyma
 - (2) Parenchyma
 - (3) Xylem
 - (4) Phellogen
06. Sub-cellular components are separated by means of ?
- (1) Chromatography
 - (2) Autoradiography
 - (3) Electrophoresis
 - (4) Differential and density gradient centrifugation
07. Which these is a vertebrate animal ?
- (1) Prawn
 - (2) Snake
 - (3) Mosquito
 - (4) Octopus
08. Which of these is not a C_4 plant ?
- (1) Maize
 - (2) Rice
 - (3) Sorghum
 - (4) Sugarcane
09. Cell theory was first formulated by ?
- (1) Schleiden and Schwann
 - (2) Rudolf Vrichow
 - (3) A.V. Leeuwenhock
 - (4) Ruth Sagar
10. Apple is a ?
- (1) True fruit
 - (2) False fruit
 - (3) Vegetable
 - (4) Parthenocarpic fruit

11. Tendrometer is used to major maturity of :
- | | |
|-------------------|----------------|
| (1) French bean | (2) Garden pea |
| (3) Dolichus bean | (4) Cow pea |
12. Horse radish tree is common name of which vegetable crop :
- | | |
|-----------------|---------------|
| (1) Bread fruit | (2) Asparagus |
| (3) Drumstick | (4) Rhubarb |
13. Edible part of Asparagus is :
- | | |
|------------------|------------|
| (1) Root | (2) Fruit |
| (3) Tender shoot | (4) Flower |
14. Sree Keerthi is a variety of :
- | | |
|-----------------|-------------------|
| (1) Greater Yam | (2) Lesser Yam |
| (3) White Yam | (4) Medicinal Yam |
15. Which of the vegetable is often cross pollinated ?
- | | |
|----------------|-----------------|
| (1) Cow pea | (2) Winged bean |
| (3) Broad bean | (4) Lima bean |
16. *Leucinodes orbanilis* is the major pest of :
- | | |
|------------|-------------|
| (1) Tomato | (2) Brinjal |
| (3) Potato | (4) Chilli |
17. AVRDC is situated at :
- | | |
|------------|------------------|
| (1) Tokyo | (2) Tasmania |
| (3) Taiwan | (4) Turkmenistan |

18. Hermaphrodite cultivar of ridge gourd is :

- | | |
|-----------------|------------------|
| (1) Pusa Nasdar | (2) Satputia |
| (3) CO-1 | (4) Jhinga Torai |

19. Sex from of Kakrol is :

- | | |
|---------------------|-------------------|
| (1) Monoecious | (2) Dioecious |
| (3) Andromonoecious | (4) Gynodioecious |

20. Leek is grown for its :

- | | |
|-----------|------------------------------|
| (1) Bulb | (2) Tuber |
| (3) Clove | (4) Branched stem and leaves |

21. Type of inflorescence found in grape is :

- | | |
|--------------|-------------|
| (1) Solitary | (2) Spadix |
| (3) Penicel | (4) Catkins |

22. Genetic classification of banana was given by :

- | | |
|---------------------|--------------------------|
| (1) Burn and Prayug | (2) Simmond and Shepherd |
| (3) De Candale | (4) Vavilob |

23. Which growth regulator is used to reduce period of chilling requirement ?

- | | |
|---------------|---------|
| (1) NAA | (2) IBA |
| (3) Cytokinin | (4) GA3 |

24. Yellow Heart is the variety of :
- | | |
|-----------------|------------|
| (1) Loquat | (2) Litchi |
| (3) Bread fruit | (4) Almond |
25. Kanchan a chance seedling of Aonla is derived from :
- | | |
|--------------|--------------|
| (1) Foster | (2) Krishna |
| (3) Banarasi | (4) Chakaiya |
26. Girdling is most common in :
- | | |
|------------|------------|
| (1) Litchi | (2) Mango |
| (3) Grape | (4) Citrus |
27. Bitter principal present in citrus is :
- | | |
|--------------|-----------------|
| (1) Lycopene | (2) Isocoumarin |
| (3) Eugenol | (4) Limonin |
28. Which variety of mango has characteristics turpentine flavour :
- | | |
|---------------|--------------|
| (1) Chausa | (2) Langra |
| (3) Dashehari | (4) Totapari |
29. TSS or tomato sauces should be :
- | | | | |
|---------|---------|---------|---------|
| (1) 25% | (2) 28% | (3) 30% | (4) 35% |
|---------|---------|---------|---------|
30. Father of canning is :
- | | |
|---------------------|---------------|
| (1) Nicholas Appert | (2) Needham |
| (3) Frunk | (4) Bergilius |

31. Transvaal Daisy is another name of :
(1) Gerbera (2) Jasmine
(3) Lily (4) Carnation
32. The basic chromosome number of gladiolus is :
(1) 13 (2) 15 (3) 17 (4) 20
33. Which type of gardens developed by Le Notre ?
(1) French (2) Japanese
(3) English (4) Italian
34. The Physiological disorder Preharvest stem break is observed in :
(1) Gladiolus (2) Gerbera
(3) Tuberose (4) Jasmine
35. Chalking is a physiological disorder of :
(1) Rose (2) Gloriosa
(3) Narcissus (4) Tulip
36. "Prajwal" is variety of :
(1) Tuberose (2) Chrysanthemum
(3) Gladiolus (4) Rose
37. Which of following species of marigold is tetraploid ?
(1) *Tagetes erecta* (2) *Tagetes tenuifolia*
(3) *Tagetes lucida* (4) *Tagetes patula*
38. 'Arka Aradhna' is a variety of :
(1) *Jasminum sambac* (2) *Jasminum grandiflorum*
(3) *Jasminum auriculatum* (4) *Jasminum pubescens*

39. Parent of gladiolus variety Agnirekha, Mayur and Pusa Suhagin is
- | | |
|----------------|---------------------|
| (1) Kalima | (2) Sylvia |
| (3) Friendship | (4) American Beauty |
40. Which of following orchid commonly called "Lady's Slipper" ?
- | | |
|---------------|-------------------|
| (1) Oncidium | (2) Bulbophyllum |
| (3) Cymbidium | (4) Paphiopedilum |

Short Answer Questions

Note: Attempt any **five** questions. Write answer in **150-200** words. Each question carries **16** marks. Answer each question on separate page, after writing Question Number.

1. Discuss in brief the different botanical varieties of cultivated lettuce.
2. Describe in short the production constraints of brinjal.
3. Discuss in brief the physiological disorders of tomato.
4. Define hybridization and give some suitable examples of important vegetable varieties develop through it.
5. Discuss the significance of hybrid varieties in enhancement of production and export of mango.
6. Discuss the role of root-stock in high density planting of fruit crops.
7. Discuss the criteria of pruning on different training systems of grapes.
8. What do you understand by 'Geotropic bending of gladiolus spike' ? Write the role of hormone responsible for it and also give remedy of it.
9. Write the reason of 'Bent neck in rose'. Mention the name of varieties influenced by this physiological disorder. Give remedial measures of it.
10. Write about mobility in the garden. What are the plants to be planted in the garden to create mobility ?

Question No.

Page for Short Answer

Question No.

Page for Short Answer

Question No.

Page for Short Answer

Question No.

Page for Short Answer

Question No.

Page for Short Answer

अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कौन-सा प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/का, भागी होगा/होगी।