

Question Booklet No.

(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 changes 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 page 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 : 15

FOR ROUGH WORK

Research Entrance Test – 2013

No. of Questions : 50

Time : 2 Hours

Full Marks : 200

Note : (i) This Question Booklet contains 40 Multiple Choice Questions followed by 10 Short Answer Questions.

(ii) 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.

(iii) 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.

1. One Horse Power (HP) is expressed in term of watt which is
(1) 720 (2) 786 (3) 746 (4) None of these
2. Number of segments present in insect head is :
(1) Two (2) Four (3) Six (4) Seven
3. Deficiency symptom of sulphur first appears an :
(1) Younger leaves (2) Older leaves
(3) Middle leaves (4) None of these
4. Protein content in lentil is :
(1) 18% (2) 25% (3) 16% (4) 20%
5. Demonstration showing how to do things is called ?
(1) Method demonstration (2) Result demonstration
(3) Training (4) Frontline demonstration
6. Dithane M-45 is a :
(1) Bactericide (2) Insecticide
(3) Fungicide (4) Nematicide
7. Jamunapari is a breed of :
(1) Cow (2) Goat
(3) Buffalo (4) None of the above
8. Select the correct formula of urea :
(1) $H_2NCO_2NH_2$ (2) $HNCONH$
(3) H_2NCONH_2 (4) H_4NCONH_4
9. The measure of central tendency is :
(1) Median (2) Mode
(3) Mean (4) All of the above
10. On which of the following plant Gregor Mendal perform his classical experiment ?
(1) Gram (2) Maize (3) Pea (4) Rice

11. Alstromeria flower is commonly known as :
- (1) Calla lily (2) Spider lily
(3) Peruvian lily (4) Kaifer lily
12. Oil percentage in *Rosa damascena* is :
- (1) 0.10 (2) 0.08 (3) 0.03 (4) 0.2
13. Which of the following flower is basipetally ?
- (1) Iris (2) Cymbidium
(3) Liatris (4) Freesia
14. "Prajwal" is variety of :
- (1) Rose (2) Chrysanthemum
(3) Gladiolus (4) Tuberose
15. 'A.P.J. Abdul Kalam' is a variety of :
- (1) Gladiolus (2) Rose
(3) Crossandra (4) Antirrhinum
16. *Nelumbo nucifera* commonly known as :
- (1) Indian lotus (2) American lotus
(3) Caspian lotus (4) Chinese lotus
17. Which species of *Tagetes* is grown for extraction of oil ?
- (1) *Tagetes lucida* (2) *Tagetes psylla*
(3) *Tagetes petula* (4) *Tagetes minuta*
18. Tuberose is native to :
- (1) South Africa (2) Mexico
(3) North America (4) Mediterranean region

19. What is basic chromosome number of gladiolus ?
- (1) X = 8 (2) X = 15
(3) X = 22 (4) X = 28
20. Which breeding method was followed to develop gladiolus varieties Shobha and Subhangini ?
- (1) Pureline Selection (2) Hybridization
(3) Mutation (4) Progeny Selection
21. Botanical name of Mandarin orange is :
- (1) *Citrus reticulata* (2) *Citrus sinensis*
(3) *Citrus aurantifolia* (4) *Citrus paradise*
22. Sathgudi is a variety of :
- (1) Mandarin (2) Sweet orange
(3) Pummelo (4) Grapefruit
23. Kohir Safed is a cross between :
- (1) Kohir × Allahabad Safeda (2) Allahabad Safeda × Kohir
(3) Redfleshed × Kohir (4) L-49 × Kohir
24. Chilling requirement of apple is :
- (1) 500-600 hr below 7°C (2) 200-400 hr below 7°C
(3) 800- 1600 hr below 7°C (4) 1000-2000 hr below 7°C
25. Pusa Arunima is a cross between :
- (1) Amrapali × Sensation (2) Sensation × Amrapali
(3) Amrapali × Dashehari (4) Neelum × Dashehari

26. Which pigment is responsible for orange-yellow colour in papaya and orange?

- (1) Flavonoids (2) Xanthophyll
(3) Anthocyanins (4) Lycopene

27. High density planting was first established in which fruit tree ?

- (1) Mango (2) Guava
(3) Apple (4) Banana

28. 'Salt tolerant polyembryonic mango rootstock is :

- (1) Vellaicolumban (2) Olour
(3) Kurrukan (4) Chandrakaran

29. Popular tissue culture variety of banana is :

- (1) Alpan (2) Basrai Dwarf
(3) Harichal (4) Grand Nane

30. Cleavage polyembryony is found in :

- (1) Grape (2) Citrus
(3) Apple (4) Coconut

31. Which of the following is C_4 plant ?

- (1) Carrot (2) Potato
(3) Beans (4) Amaranthus

32. In brinjal cross pollination occurs due to :

- (1) Heterostyly (2) Self incompatibility
(3) Dioecy (4) Monoecy

- 33.** Hybridization is easy in all crops falling in :
- | | |
|------------------------|-------------------------|
| (1) Primary gene pool | (2) Secondary gene pool |
| (3) Tertiary gene pool | (4) Octinary gene pool |
- 34.** Inhibition of seed germination as a result of absence of water is termed as :
- | | |
|-------------------|-------------------|
| (1) Seed dormancy | (2) Quiescence |
| (3) Seed vigour | (4) Vernalization |
- 35.** Delayed harvesting in radish may cause :
- | | |
|--------------------|------------------------|
| (1) Forking | (2) Pithiness |
| (3) Deformed roots | (4) Increased pungency |
- 36.** Ivy gourd is propagated by :
- | | |
|-------------------|------------------|
| (1) Seed | (2) Root cutting |
| (3) Tuberos roots | (4) Stem cutting |
- 37.** Wart disease of potato is caused due to :
- | | |
|------------|----------------|
| (1) Fungus | (2) Bacteria |
| (3) Virus | (4) Mycoplasma |
- 38.** Pusa Deepti is a F_1 hybrid of :
- | | |
|--------------|------------|
| (1) Capsicum | (2) Tomato |
| (3) Brinjal | (4) Chilli |
- 39.** Which aspect of juice is adversely affected by the process of pasteurization at high temperature ?
- | | |
|------------------|-------------|
| (1) Colour | (2) Taste |
| (3) Storage life | (4) Flavour |

40. Pea is packed in :

- | | |
|------------------------|---------------------------|
| (1) Acid resistant can | (2) Sulphur resistant can |
| (3) Plain can | (4) Lacquered can |

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. What is geotropic bending of gladiolus spike. Write the causes and remedies.
2. Describe the bent neck in rose.
3. Describe the role of male sterility in marigold.
4. Differentiate between training and pruning.
5. What do you understand by stionic effect.
6. Describe the modified atmospheric storage.
7. Explain sex forms in cucurbits and their role in pollination, fruit set and seed production.
8. What is vegetable forcing? How can this type of gardening be helpful in vegetable production in India?
9. Explain the various factors responsible for good setting of jelly.
10. Define landscape and describe landscaping.

Roll No. :

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FOR ROUGH WORK

