

(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.

FOR ROUGH WORK

Research Entrance Test – 2015

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. "Fluid mosaic model" relates to the structure of :
 - (1) Cell wall
 - (2) Protoplasm
 - (3) Plasma membrane
 - (4) Nucleic acid
2. Spongy tissue of mango is a :
 - (1) Bacterial disease
 - (2) Physiological disease
 - (3) Viral disease
 - (4) Fungal disease
3. A purpose of initiating a conscious and purposeful action is called :
 - (1) Education
 - (2) Motivation
 - (3) Action
 - (4) Coordination
4. Yellow colour of egg is due to :
 - (1) Carotene
 - (2) Xanthophyll
 - (3) Anthocyanin
 - (4) Vitamin B
5. During prophase-I of meiosis crossing over occurs at :
 - (1) Zygotene
 - (2) Pachytene
 - (3) Diplotene
 - (4) Diakinesis
6. In which crop the use of Blue-Green Algae as a bio-fertilizer will be most useful ?
 - (1) Maize
 - (2) Potato
 - (3) Rice
 - (4) Sugarcane
7. Lycopene pigment is present in :
 - (1) Beetroot
 - (2) Tomato
 - (3) Radish
 - (4) Chilli
8. Ooze test is done to detect :
 - (1) Bacterial disease
 - (2) Fungal disease
 - (3) Viral disease
 - (4) All of these
9. Number of chromosome in wheat endosperm is :
 - (1) 21
 - (2) 42
 - (3) 63
 - (4) 14
10. Acridine orange is used for inducing :
 - (1) DNA denaturation
 - (2) Mutagenesis
 - (3) Chiasma formation
 - (4) Bacterial transduction

11. Bronzing in guava is caused due to deficiency of
 (1) Mn (2) Mo
 (3) Zn (4) P
12. Which growth regulator is used to reduce the period of chilling requirement?
 (1) NAA (2) IBA
 (3) Cytokinin (4) GA₃
13. "Swarn Roopa" is an important cultivar of
 (1) Pear (2) Litchi
 (3) Persimmon (4) Citrus
14. Who is known as "Father of Systematic Pomology" ?
 (1) M. S. Swaminathan (2) Williams
 (3) De Candolle (4) B. P. Pal
15. "Butter Fruit" is the nick name of
 (1) Avocado (2) Apricot
 (3) Cashew (4) Guava
16. The chromosome number of Bael (*Aegle marmelos*) is
 (1) 18 (2) 36
 (3) 26 (4) 24
17. Genomic constitution of FHIA-1 (Gold Finger) is
 (1) AAAA (2) AAAB
 (3) ABBB (4) AAA
18. Type of inflorescence in grape is
 (1) Solitary (2) Spadix
 (3) Panicle (4) Catkins

19. Hen and Chicken disorder is commonly found in
 (1) Citrus (2) Guava
 (3) Panicle (4) Grape
20. Parents of mango variety Arka Puneet are
 (1) Banganpalli × Alphonso
 (2) Neelam × Alphonso
 (3) Alphonso × Banganpalli
 (4) Neelam × Banganpalli
21. Aroma containing compound present in onion is
 (1) Diallyl disulphide (2) Allypropyl disulphide
 (3) Dimethyl disulphide (4) Isothiocyanate
22. "Pusa Parvati" is mutant variety of
 (1) French bean (2) Cowpea
 (3) Cluster bean (4) Garden pea
23. On the basis of photoperiod requirement sweet potato is classified as
 (1) Short day plant (2) Long day plant
 (3) Day neutral plant (4) Long-short day plant
24. Which of the vegetable crop is C₄ plant ?
 (1) Carrot (2) Potato
 (3) Amaranthus (4) Bean
25. Tomato leaf curl is transmitted by
 (1) Thrips (2) Aphids
 (3) White fly (4) Bees
26. In which type of flower maximum number of fruit setting takes place in brinjal ?
 (1) Long styled (2) Medium styled
 (3) Short styled (4) Pseudo short styled

27. "Big bub" in tomato is caused due to
 (1) Fungus (2) Mycoplasma
 (3) Bacteria (4) Virus
28. "Pusa Mukta" is variety of
 (1) Cauliflower (2) Cabbage
 (3) Knol-khol (4) Turnip
29. "Pusa Chikni" is variety of
 (1) Ridge gourd (2) Sponge gourd
 (3) Bitter gourd (4) Bottle gourd
30. Seed rate of potato (TPS) for one ha area is
 (1) 150 g (2) 200 g.
 (3) 100 g. (4) 300 g.
31. Which of the following cut rose variety is good for protected cultivation ?
 (1) Red Beauty (2) Grand Gala
 (3) Jawahar (4) Priyadarshini
32. Slabside is a physiological disorder of
 (1) Rose (2) Orchid
 (3) Gladiolus (4) Carnation
33. Which of following institute developed 'no pinch cultivars' Haldighati and Sharad Singar of chrysanthemum?
 (1) IARI (2) NBRI
 (3) IHR (4) IHBT
34. Bougainvillea variety Thimma is bud sport of
 (1) Archana (2) Mary Palmer
 (3) Rao (4) Maharaja of Mysore

35. Which of the following flowering plant family has largest species?
- (1) Compositae (2) Rosaceae
(3) Orchidaceae (4) Malvaceae
36. What are the parentage of Tea rose?
- (1) *Rosa gallica* × *Rosa centifolia*
(2) *Rosa multiflora* × *Rosa wichuraiana*
(3) *Rosa centifolia* × *Rosa gallica*
(4) *Rosa chinensis* × *Rosa gigantea*
37. Who laid out Rashtrapati Bhawan Garden at New Delhi?
- (1) Lord Curzon (2) K. Mori
(3) Sir Edwin Lutyens (4) Shah Jahan
38. Which type of gardens developed by Le Notre?
- (1) French (2) Japanese
(3) English (4) Italian
39. Biggest cut flower market is located at
- (1) Tokyo (2) Paris
(3) Aalsmeer (4) New York
40. Who is the pioneer gladiolus breeder in India ?
- (1) T. M. Rao
(2) S. P. S. Raghava
(3) B. K. Banerji
(4) Bajaran Bahadur Singh Bhadari

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 crop regulation ? Give an account of crop regulation in guava.
2. Discuss the genomic classification and nomenclature of banana.
3. Enumerate the various factors causing pre-harvest fruit drop in mango and citrus.
4. Write reason of bent neck in rose and write remedy of bent neck in rose.
5. Write types of male sterility in marigold and its importance in hybrid seed production.
6. What are the reasons and conditions of more attack of thrips in rose ? Write control measures of thrips in roses.
7. What is osmodehydration ? Discuss the method of osmodehydration in mango.
8. Discuss in brief fruit cracking in tomato.
9. Discuss in brief seed plot technique in potato.
10. Explain in brief the sex forms in cucurbits and their role in pollination, fruit set and seed production.

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Q. No. :

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(8)

Roll No. :

Q. No. :

Roll No. :

Q. No. :

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(10)

Roll No. :

Q. No. :

Roll No. :

Q. No. :

FOR ROUGH WORK

