

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 30 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 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.

[उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण-पृष्ठ पर दिये गये हैं ।]

Total No. of Printed Pages : 16

SEAL

FOR ROUGH WORK

RETRAVEL (B)

and / or

and Date

NOTIONS TO CANDIDATES

The following information is intended to provide candidates with a general overview of the process and requirements for the position. It is not intended to constitute an offer of employment or a contract. The information is subject to change without notice. Candidates are encouraged to read the information carefully and to contact the appropriate personnel if they have any questions.

1. Eligibility Requirements: Candidates must be a U.S. citizen, at least 18 years of age, and have a high school diploma or equivalent. A minimum of two years of professional experience in the field is required.

2. Application Process: Candidates must submit a completed application form, a current resume, and three references. All applications must be submitted to the Human Resources Department, 1234 Main Street, Suite 500, New York, NY 10001. Applications will be accepted on a rolling basis.

3. Selection Process: The selection process will consist of a written examination, an oral interview, and a background check. The written examination will be held on [Date]. The oral interview will be held on [Date]. The background check will be completed within [Timeframe].

4. Offer of Employment: Successful candidates will be offered a position on a full-time basis. The offer will be contingent upon the successful completion of the background check and the receipt of all required documentation.

5. Compensation and Benefits: The starting salary for this position is \$[Amount] per year. The position is eligible for the company's health, dental, and vision insurance plans. A 401(k) retirement plan is also available.

6. Work Schedule: The normal work schedule is 9:00 a.m. to 5:00 p.m., Monday through Friday. There may be occasional overtime requirements.

7. Equal Opportunity: The organization is an equal opportunity employer. All qualified candidates will be considered for employment without regard to race, color, religion, sex, age, or national origin.

Research Entrance Test – 2018

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. Which of the following is referred as Buffalo grass ?
(1) Para grass (2) Napier grass (3) Setaria grass (4) Guinea grass
2. Who is known as "Father of White Revolution in India" ?
(1) Dr. M. S. Swaminathan (2) Dr. J. J. Chinoy
(3) Dr. R. S. Paroda (4) Dr. Verghese Kurien
3. A character which is expressed in hybrid is called :
(1) Epistatic (2) Co-dominant (3) Dominant (4) Recessive
4. First antibiotic isolated was :
(1) Neomycin (2) Streptomycin (3) Terramycin (4) Penicillin
5. Mycorrhiza is the :
(1) Parasitic association between fungus and roots of seed plants
(2) Symbiotic association between fungus and roots of seed plants
(3) Saprophytic association between fungus and roots of seed plants
(4) Symbiotic association between bacteria and the roots of seed plants
6. Growing of complete plant from a cell is known as :
(1) Totipotency (2) Axenic culture
(3) Clone formation (4) Micro propagation
7. Clay soil particle size is :
(1) Less than 0.002 mm (2) Between 0.002-0.02 mm
(3) Between 0.02-0.2 mm (4) More than 2 mm
8. Which bacteria is useful for "Dairy Industry" ?
(1) *Clostridium acetobutyricum* (2) *Bacillus megatherium*
(3) *Acetobacteria aceti* (4) *Bacterium acidi lactic*
9. The silkworm *Bombyx mori* is fed on :
(1) Rose leaves (2) Mulberry leaves
(3) Hibiscus leaves (4) *Gladiolus* leaves
10. Sansad Adarsh Gram Yojana (SAANJHI) was launched on :
(1) November, 2005 (2) January, 2010
(3) October, 2014 (4) March, 2017

11. A novel chitin synthesis inhibitor affecting specifically the whiteflies, plant hoppers and scale insect is :
- (1) Buprofezin (2) Dimilin
(3) Novaluron (4) Teflubenzuron
12. Blue disease of cotton is transmitted by :
- (1) Aphid (2) Whitefly
(3) Jassid (4) Pink boll worm
13. Antennae are innervated by :
- (1) Tritocerebrum (2) Ventral nerve cord
(3) Protocerebrum (4) Deutoceraebrum
14. The microbes, mostly fungi and sometimes bacteria, that grow entirely within the plant body, inter or intra cellular and spend all or nearly all their life cycle in the host are called :
- (1) Antibiotics (2) Biotypes
(3) Parasite (4) Endophytes
15. Flubendamide 20WG is recommended to control cotton boll worms measured 250 g and is added to 200 litre of water spray fluid. The percentage concentration of insecticide in spray fluid will be.
- (1) 0.025% (2) 0.05%
(3) 0.085% (4) 0.25%
16. Which one of the following under goes embryonic diapause:-
- (1) Silk worm (2) Pink boll worm
(3) Mosquito (4) Tobacco horn worm
17. The total heat energy required to complete a certain stage of development in the life cycle of species is called :
- (1) Developmental unit (2) Thermal constant
(3) Thermoregulation (4) Acclimation

18. Pollination by insect is called :
- | | |
|-----------------|------------------|
| (1) Entomophily | (2) Entomophobia |
| (3) Hydrophily | (4) Entomophagy |
19. The first documented case of resistance to insecticide was reported from the insect :
- | | |
|-----------------------|------------------------|
| (1) Singhara beetle | (2) Sanjose scale |
| (3) Diamond back moth | (4) American boll worm |
20. The sac for storage of sperms in male insects is called :
- | | |
|---------------------|------------------|
| (1) Seminal vesicle | (2) Spermatheca |
| (3) Genital chamber | (4) Vas deferens |
21. An insecticide used for seed treatment against sucking insect pests is :
- | | |
|------------------|-----------------|
| (1) Quinalphos | (2) Decamethrin |
| (3) Imidacloprid | (4) Phorate |
22. An arthropod that parasitizes and kills an arthropod host; is parasitic in its immature stages but is free living as an adult is known as :
- | | |
|----------------|--------------------|
| (1) Parasite | (2) Entomopathogen |
| (3) Parasitoid | (4) Paedogenesis |
23. The term 'Ecosystem' was proposed by :
- | | |
|-------------------|------------------|
| (1) Hannis Reiter | (2) A.G. Tansley |
| (3) E.P. Odum | (4) Mayer |
24. Site of pupation of mango fruit fly :
- | | |
|---------------|-------------------|
| (1) on leaves | (2) inside fruits |
| (3) in soil | (4) on stem |
25. The movement of insecticide towards the surface of the soil along with water is called :
- | | |
|------------------------|---------------------------|
| (1) Surface residue | (2) Disorption phenomenon |
| (3) Penetrated residue | (4) Wick - effect |

26. The concentration of pheromone which is necessary to trigger behavior response of other individuals of same species is called :
- (1) Behavioral Threshold concentration
 - (2) Releaser response
 - (3) Receiver response
 - (4) Allelochemicals
27. Internally foregut is lined with :
- (1) Taenidia
 - (2) Peritrophic membrane
 - (3) Epithelial membrane
 - (4) Intima
28. Which of the following, is a pest of apple :
- (1) *Sylepta lunalis*
 - (2) *Cydia hemidoxa*
 - (3) *Nodostoma subcostatum*
 - (4) *Eriosoma lanigerum*
29. Curling of leaf upwards and yellowing of terminal cotton shoots is characteristic symptom of :
- (1) *Aphis gossypii*
 - (2) *Amrasca devastans*
 - (3) *Pectinophora gossypiella*
 - (4) *Dysdercus cingulatus*
30. Which of the insect grub feeds exclusively on seed legumes and pupation occurs within the seed :
- (1) Pulse beetle
 - (2) Blister beetle
 - (3) Cockchafer beetle
 - (4) Hadda beetle
31. Which of the following larval parasitoid is an attack on larvae of rice gall midge :
- (1) *Goniozus nephantidis*
 - (2) *Bracon brevicornis*
 - (3) *Platygaster oryzae*
 - (4) *Tetrastychus schoenobi*
32. Whorled type of antennae found in :
- (1) Butter fly
 - (2) Male mango mealy bug
 - (3) Grasshopper
 - (4) Termite

33. Mode of action of spiromesifen insecticide is :
- (1) Ryanodine receptor modulator (2) Inhibit ATP synthase
 (3) Lipid biosynthesis inhibitor (4) Nicotinic acetylcholine receptor
34. Lipids and polyphenols present in the epicuticle acts as :
- (1) Water proofing (2) Prevents escape of water
 (3) Prevent water loss (4) All the above
35. International Centre of Insect Physiology and Ecology (ICIPE) is situated in :
- (1) USA (2) Sri Lanka
 (3) Kenya (4) India
36. The blood sucking insects find their mammalian host through the perception of :
- (1) Relative humidity (2) Moisture
 (3) Light (4) Temperature
37. Which of the following insects was used first in biological control ?
- (1) *Rodolia cardinalis* (2) *Aphelinus mali*
 (3) *Oecophylla smaragdina* (4) *Cryptolaemus montrouzieri*
38. The most important enzyme of mixed function oxidise system :
- (1) Carboxyl esterase (2) Phosphatase
 (3) Cytochrome P-450 (4) Dechlorinase
39. What is the total life span of a worker bee in a colony :
- (1) 24 days (2) 21 days
 (3) 42 days (4) 30 days
40. Larvae have calliper like mandible and terminal cerci like structures called *urogamphi* are characteristic features of family :
- (1) Carabidae (2) Cicindelidae
 (3) Lampyridae (4) Sacrabaeidae