

3

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 – 2014

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
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4. Yellow colour of egg is due to :

(1) Carotene	(2) Xanthophyll	(3) Anthocyanin	(4) Vitamin B
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5. During prophase-I of meiosis crossing over occurs at :

(1) Zygotene	(2) Pachytene	(3) Diplotene	(4) Diakinesis
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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
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7. Lycopene pigment is present in :

(1) Beetroot	(2) Tomato	(3) Radish	(4) Chilli
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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
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10. Acridine orange is used for inducing :

(1) DNA denaturation	(2) Mutagenesis
(3) Chiasma formation	(4) Bacterial transduction

11. The unit for measuring Viscosity of Milk is:
(1) Dyne (2) mho (3) Poise (4) Volts
12. The PFA standards for Toned milk is:
(1) 3.0% Fat & 9.0% SNF (2) 3.0% Fat & 8.5% SNF
(3) 1.5% Fat & 8.5% SNF (4) 1.5% Fat & 9.0% SNF
13. Emulsifier improve the:
(1) Melting of Ice Cream (2) Whipping quality of Ice Cream
(3) Sogginess of Ice Cream (3) Sandiness of Ice Cream
14. Starter species commonly used in milk industry is:
(1) Staphylococcus (2) Streptococcus
(3) Lactobacillus (4) Leuconostoc
15. Mozzarella Cheese is preferably made from:
(1) Cow milk (2) Buffalo milk (3) Goat Milk (4) Camel Milk
16. Function of active **starter** in the manufacture of a fermented milk products is:
(1) **Acid Production.**
(2) Desired characteristics flavor production.
(3) Prevention of growth of undesirable microorganisms.
(4) All of these.
17. Which one of the following is a cross breed cow:
(1) Jersey (2) Brown Swiss (3) Karan Swiss (4) Holstein

18. The milk production growth in India is hovering around:
- (1) 1-2 % per year (2) 2-3 % per year
(3) 4-5 % per year (4) 7-8 % per year
19. The Lecithin Concentration of Phospholipid fractions in Buffalo milk is:
- (1) 4.63 (2) 6.69 (3) 7.29 (4) 9.12
20. UHT is the process of:
- (1) Filtration (2) Clarification
(3) Homogenization (4) Pasteurization
21. The first few strips of milk from each quarter should not be mixed with the rest of the milk as it contains:
- (1) More fat
(2) More bacteria
(3) Should be used for mastitis detection
(4) All of these
22. Goat meat is called as:
- (1) Mutton (2) Chevon
(3) Pork (4) Cara beef
23. India ranks..... in cattle population.
- (1) 1st (2) 2nd (3) 3rd (4) 5th
24. Pashmina is obtained from:
- (1) Chegu goat (2) Sannen goat
(3) Jamurapari goat (4) Merino Sheep

(4)

25. Colour of Haryana breed of cattle is:
(1) White or light grey (2) Black or light grey
(3) Red (4) Brown
26. T and D is a breed ofdeveloped at Birsa Agricultural University, Ranchi.
(1) Cattle (2) Sheep (3) Pig (4) Goat
27. Broiler is a bird (chicken) of about one kg (two pounds) of weight in about:
(1) 2-4 weeks (2) 4-6 weeks (3) 7-8 weeks (4) 8-10 weeks
28. Filled Milk is same as Recombined Milk, except that the fat is derived from one of the following source:
(1) Animal (2) Vegetable (3) Both (4) No Fat
29. Ovulation takes in cow during:
(1) Proestrus (2) Oestrus
(3) Metoestrus (4) Dioestrus
30. Which method is used for bloodless castration:
(1) Reuff's method (2) Alternative method
(3) Both (4) Burdizzo method
31. The percentage of fat in butter oil is:
(1) 90.00 - 92.00 (2) 92.50 - 95.75
(3) 99.50 - 99.80 (4) 95.25 - 97.50
32. The Casein content of cow milk is:
(1) 2.5 % (2) 3.0% (3) 3.2 % (4) 3.5%

33. Which one of the following is disinfectant:
(1) Chlorine (2) Chloroform
(3) Potassium Nitrate (4) Boric Acid
34. The highest milk producing country in the world is:
(1) U.K. (2) Germany (3) USA (4) India
35. 'Very Good' Grade milk should contain the SPC/ml is:
(1) Not exceeding 1.0 Lacs (2) Not exceeding 2.0 Lacs
(3) Not exceeding 3.0 Lacs (4) Not exceeding 5.0 Lacs
36. As per BIS Specification, total milk solids percentage in Condensed milk is:
(1) 27 (2) 29 (3) 31 (4) 33
37. Pasteurization of milk was first done by:
(1) Louis Pasteur in 1860. (2) Dr. Soxhlet in 1886.
(3) Nicholas Appert in 1809. (4) Gail Borden in 1801.
38. Murrah breed of Buffaloes has originated from:
(1) Pakistan (2) Thailand (3) Bangladesh (4) India
39. As per BIS Specifications, the minimum weight of one litre of Ice cream should be:
(1) 425 gm (2) 525 gm (3) 575 gm (4) 625 gm
40. Least variable constituents of milk is:
(1) Casein (2) Fat (3) Lactose (4) Minerals

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. Methods of selection in livestock
2. Methods of milking
3. A Dairy has 1000 kg of cream testing 50% fat, How much skim milk testing 0.1% fat required to obtain cream testing 40% fat ?
4. Define breeds & give five names of Indian cow & buffalo breeds.
5. Classify indigenous milk products and give the name of their western counterparts.
6. What is total quality management (TQM) ?
7. Describe briefly the packaging techniques for Dairy Industry.
8. Differentiate the overrun of butter & Ice-cream.
9. Give the flow diagram for the manufacture of Cheddar Cheese.
10. What are Probiotics & Prebiotics ?

Roll No. :

Q. No. :

Roll No. :

Q. No. :

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(9)

P.T.O.

Roll No. :

Q. No. :

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(10)

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Q. No. :

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(12)

FOR ROUGH WORK

