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 – 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. Neoprene is polymer of:
   (1) Orlon   (2) SAN   (3) ABS   (4) All of these

2. The reagent that can be used to distinguish between Glucose and Fructose is:
   (1) Bromine water   (2) Fehling's solution
   (3) Tollen's reagent   (4) Phenyl hydrazine

3. What will happen if a lysosome leaks inside the cell?
   (1) The lysosomal enzymes will digest cell organelles
   (2) The lysosomal enzymes will become nonfunctional at pH 7.4 of the cytoplasm
   (3) The lysosomal enzymes will be secreted out of the cell
   (4) The leaked suicidal bag will make cell to commit suicide

4. Oxygen evolved during photosynthesis in plants comes from:
   (1) Splitting of water molecules
   (2) Breakdown of carbon dioxide
   (3) Carbohydrates accumulated by plants
   (4) Lipids

5. The contribution of Gregor Johann Mendel is related to the area of:
   (1) Plant classification   (2) Genetics
   (3) Cell structure   (4) Plant functions

6. Himalaya is:
   (1) Paleozoic tectonic mountain   (2) Recent Folded mountain
   (3) Indian mountain   (4) Eurasian mountain

7. A particle executes simple harmonic motion under the restoring force provided by a spring. The time period is T. If the spring is divided in two equal parts and one part is used to continue the simple harmonic motion, the time period will:
   (1) remain T   (2) become 2T   (3) become T/2   (4) become T/√2

RET/15/Test B/894  (2)
8. The efficiency of the Carnot's engine working between the steam point and the ice point is:
   (1) 36.81%    (2) 26.81%    (3) 40%    (4) 16.8%

9. If \( \vec{a} = 2i - 3j + 4k \) and \( \vec{b} = 3i + 2j \), then the angle between \( \vec{a} \) and \( \vec{b} \) is:
   (1) 45°    (2) 90°    (3) 180°    (4) 120°

10. The value of the integral \( \int_0^{\pi/2} \frac{\sqrt{\sin x}}{\sqrt{\sin x + \sqrt{\cos x}}} \, dx \) is
    (1) \( \pi \)    (2) \( \frac{\pi}{2} \)    (3) \( \frac{\pi}{4} \)    (4) \( -\frac{\pi}{4} \)

11. 73 Constitutional Amendment bill was passed in Lok Sabha on:
    (1) 22nd December, 1992    (2) 16th December, 1991
    (3) 23rd December, 1992    (4) 22nd December, 1993

12. Which of the following is not a fancy yarn?
    (1) Loop yarn    (2) Chenille yarn
    (3) Ply yarn    (4) Slub yarn

13. The defects of questionnaire method could possibly be:
    (1) Ambiguous format    (2) Halfhearted information
    (3) Based interpretation    (4) All above

14. The entire group from which sample is chosen is known as:
    (1) The population    (2) Universe
    (3) Supply    (4) All

15. Council for Advancement People and Rural Technology (CAPART) works under the guidance of which ministry?
    (1) Agriculture    (2) Home
    (3) Human Resource Development    (4) Rural Development
16. The study determines frequency with which something occurs with something else:
   (1) Diagonostic
   (2) Experimental
   (3) Descriptive
   (4) Exploratory

17. A quick approach to analysing a situation for assessing former's needs by a Multidisciplinary team through appropriate tool in more accurate and cost effective manner is known as:
   (1) Participatory Rural Appraisal
   (2) Rapid Rural Appraisal
   (3) Field Survey
   (4) Meeting with officers and staff at block level

18. The natural impurities and grease from wool is removed by process known as:
   (1) Bleaching
   (2) Scouring
   (3) Mercerization
   (4) None of the above

19. Nutritive value of the proteins of pulses/legumes is improved by:
   (1) Diet planning
   (2) Eating raw
   (3) Heat processing
   (4) None of the above

20. Which one of the vitamin 'A', functions as a steroid hormone?
   (1) Retinal
   (2) Provitamin 'A'
   (3) Retinol
   (4) B Carotene

21. Enterpreneurship is a game of:
   (1) Money
   (2) Time
   (3) Skill
   (4) Talent

22. The hormones essentially required for the implantation of fertilized ovum and maintenance of pregnancy:
   (1) Estrogen
   (2) Prolectin
   (3) Cortisol
   (4) Progesterone

RET/15/Test B/894
23. Sodium chloride lost in sweat and urine can be made up by adding in the diet:
   (1) Salt  (2) Chilli
   (3) Turmeric Powder  (4) None of the above

24. The essential amino acid limiting in rice is:
   (1) Methionine  (2) Tryptophan  (3) Lysine  (4) Histidine

25. In dobby weaving machine the number of heads are upto:
   (1) 40  (2) 120  (3) 100  (4) 20

26. The nutritional status is directly related to:
   (1) Food groups  (2) Nutrition
   (3) Good health  (4) Poverty line

27. The gap between present situations and possible situations is called:
   (1) Goal  (2) Desire  (3) Need  (4) Interest

28. The bicarbonate in ORS is needed for:
   (1) Absorption  (2) Treatment of acidosis
   (3) To dilute the solution  (4) None

29. Extension Educational Process consists of how many phases according to Leagan (1960)?
   (1) 6  (2) 5  (3) 7  (4) 4

30. Which of the following sleeves are developed by combining sleeve length with bodice?
   (1) Puff sleeves  (2) Bishop sleeves
   (3) Cap sleeves  (4) Kimono sleeves

31. Hyperacidity is a symptom of:
   (1) Peptic ulcer  (2) Duodenal ulcer
   (3) Gastric ulcer  (4) Mouth ulcer

RET/15/Test B/894

(5)

P. T. O.
32. Training method that works on the principle of empathy is:
   (1) Role playing  (2) Case study
   (3) Transactional analysis  (4) Sensitivity Method

33. Absolute Zero is a property of:
   (1) Nominal scale  (2) Ordinal scale
   (3) Ratio scale  (4) Interval scale

34. Heart beat of fetus starts in the:
   (1) Germinal period  (2) Embryonic period
   (3) Period of fetus  (4) Prenatal period

35. The zigzag running stitch in Kasuti embroidery is known as:
   (1) Govanti  (2) Murgi  (3) Menthi  (4) Negi

36. An assumption which can be put to test its validity is known as:
   (1) Analysis  (2) Hypothesis
   (3) Results  (4) Research

37. The hormone secreted by pancreatic B cells is:
   (1) Insulin  (2) Glucagon  (3) Lipase  (4) Pepsin

38. A research report written on a given topic by using the past literature and experience is known as:
   (1) Research note  (2) Review article
   (3) Foot notes  (4) None of the above

39. The proportion of head and chest at the age of eighteen years is:
   (1) 3 : 2  (2) 6 : 3  (3) 5 : 3  (4) 4 : 3

40. Social learning theory was given by:
   (1) Laura E. Berk  (2) Albert Bandura
   (3) John Dewey  (4) Plato

RET/15/Test B/894
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. Explain the difference between qualitative and quantitative research.

2. Explain Digestion.

3. Importance of perception in Education.


5. Women Entrepreneures.

6. Importance of research Design.

7. Transfer of Technology.


10. Importance of research in Home Science and its contribution in National Development.
FOR ROUGH WORK