

(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 – 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. According to Friedman theory of consumer behaviour  $C^P = kY^P$  where  $Y^P$  denotes :  
(1) Real income (2) Nominal income  
(3) Permanent income (4) Average income

12. If marginal Propensity to Consume (MPC) is 0.9, the value of Multiplier will be :  
 (1) 1.9.                      (2) 9                      (3) 90                      (4) 10
13. The degree of freedom in testing the significance of an observed correlation coefficient is :  
 (1)  $n - 1$                       (2)  $n - 2$                       (3)  $n_1 + n_2 - 1$                       (4)  $n_1 + n_2 - 2$
14. According to Fisher's equation of exchange :  
 (1)  $P = MV/T$                       (2)  $M^d = kPY$   
 (3)  $M^s = kPY$                       (4)  $M^d = f(P, Y, r_B, r_E, r_D)$
15. Allocative resource use efficiency is ratio of :  
 (1) Economic efficiency and Technical efficiency  
 (2) Technical efficiency and Economic efficiency  
 (3) Cost of production and value of output  
 (4) Value of output and cost of production
16. If  $MU_x/MU_y > P_x/P_y$ , to bring consumer in equilibrium stage, consumer should :  
 (1) Increase the consumption of x  
 (2) Increase the consumption of y  
 (3) Increase the consumption of x and y  
 (4) Indifferent
17. In a production function  $Y = a + bX - cX^2$ , the MP is equal to :  
 (1)  $bX - 2cX$                       (2)  $bX - cX^2$                       (3)  $b - 2cX$                       (4)  $bX - 2cX^2$
18. In CES production function, the elasticity of substitution is :  
 (1) Zero                      (2) infinite  
 (3) One                      (4) Zero to infinite
19. The existence of patent, trademark refers to :  
 (1) Perfect competitive market                      (2) Monopoly  
 (3) Oligopoly                      (4) Monopolistic
20. If there are six firms in the market and product is homogenous, the market may be termed as :  
 (1) Monopoly                      (2) Duopoly                      (3) Oligopoly                      (4) Monopolistic

21. When a firm or industry combines its pricing, promotional and distribution strategies is termed as :
- (1) Marketing Mix (2) Marketing Segmentation  
 (3) Market Conduct (4) Market Performance
22. Normal Probability Curve should be :
- (1) Positively skewed (2) Positively skewed  
 (3) Leptokurtic skewed (4) Zero skewed
23. Which of the following could be used as a test for autocorrelation up to third order ?
- (1) The Durbin-Watson test (2) White's test  
 (3) The RESET test (4) The Breusch-Godfrey test
24. What would be the consequences for the OLS estimator if heteroscedasticity is present in a regression model but ignored ?
- (1) It will be biased (2) It will be inconsistent  
 (3) It will be inefficient (4) All of the above true
25. If a Durbin-Watson statistic takes a value close to zero, what will be the value of the first order autocorrelation coefficient ?
- (1) Close to zero  
 (2) Close to plus one  
 (3) Close to minus one  
 (4) Close to either minus one or plus one
26. Arrange the following steps of research in correct order :
1. Identification of research problem
  2. Listing of research objectives
  3. Collection of data
  4. Methodology
  5. Data analysis
  6. Results and discussion
- (1) 1-2-3-4-5-6 (2) 1-2-4-3-5-6  
 (3) 1-2-3-5-4-6 (4) 2-1-4-3-5-6

27. Marginal cost is equal to average cost where :
- (1) Average cost is minimum
  - (2) Average cost is maximum
  - (3) Marginal cost is minimum
  - (4) Fixed cost is minimum Total cost
28. The Cash Reserve Ratio is fixed by the :
- (1) Government of India
  - (2) Ministry of Finance
  - (3) Reserve Bank of India
  - (4) NABARD
29. Under the Amortized Even Repayment plan, principle portion of the installment is :
- (1) Increasing
  - (2) Decreasing
  - (3) Constant
  - (4) No change
30. Regional Rural Banks are sponsored by the :
- (1) Cooperative Bank
  - (2) Commercial Bank
  - (3) Private Bank
  - (4) Life Insurance Corporation of India
31. Ex-Post evaluation of a project is done :
- (1) In the beginning of the project
  - (2) Mid of the project
  - (3) After completion of project
  - (4) None of the above
32. When the MP of land is negative, the farmer is in :
- (1) Stage I for land
  - (2) Stage III for labour
  - (3) Stage II for land
  - (4) Stage IV of Land
33. The expansion path of production theory is analogous in consumption theory to the :
- (1) Price-consumption line
  - (2) Engle curve
  - (3) Income-consumption line
  - (4) Budget constraint line

34. Sampling error decreases with the :
- (1) Decrease in sample size
  - (2) Increase in sample size
  - (3) Process of randomization
  - (4) Process of analysis
35. .... is considered as life blood of the market :
- (1) Buyers
  - (2) Sellers
  - (3) Market information
  - (4) Market organisation
36. If all the variate values are same (e.g. 6, 6, 6), the standard deviation will be :
- (1) 3
  - (2) 6
  - (3) 36
  - (4) 0
37. The solution of Primal Linear Programming Problem contains the solution of its dual also in its :
- (1) First Iteration
  - (2) Second Iteration
  - (3) Third Iteration
  - (4) Last Iteration
38. The variable added to the Left Hand Side of the constraint to convert less or equal to sign into equal to is called :
- (1) New variable
  - (2) Surplus variable
  - (3) Slack variable
  - (4) Redundant variable
39. The solution of a Linear Programming Problem satisfying all the constraints is called :
- (1) Optimal
  - (2) Feasible
  - (3) Unbounded
  - (4) Appropriate
40. In a Cobb-Douglas production function, the maximum level of output will be at the point where :
- (1) Marginal product is maximum
  - (2) Can not be determined
  - (3) Average product is maximum
  - (4) Marginal product is Zero



*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. Substitution effect
2. Measures to curb inflation
3. Economic ideas of Gandhiji
4. IS and LM Curve
5. Co-integration
6. Stratified random sampling
7. Law of increasing returns and increasing returns to scale
8. Difference between Auto-regressive model and distributed lagged model
9. Duality in Linear Programming
10. Multicollinearity

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FOR ROUGH WORK

