

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

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. Percent change in quantity supplied induced by one percent change in price is known as :
- (1) elasticity of demand (2) elasticity of production
(3) elasticity of supply (4) elasticity of substitution
12. The curve, which is locus of points in commodity space, yields same total utility to consumer is known as :
- (1) Isoquant (2) Indifference curve
(3) Isocline (4) Expansion path
13. In an economy with 'n' markets, equilibrium in 'n-1' of those markets assures that equilibrium must hold in the nth market is known as :
- (1) Walras's Law (2) Hick's Law (3) Marshal's Law (4) Marx's Law
14. Kinked Demand Curve hypothesis is found in the market :
- (1) Monopoly (2) Monopolistic ompetition
(3) Perfect (4) Oligopoly
15. When the marketing efficiency is improved through improvement in market information/intelligence, it is known as :
- (1) Inefficiency (2) Technical efficiency
(3) Pricing Efficiency (4) Allocative Efficiency
16. Two markets are said to be integrated, if the price difference between two markets is :
- (1) Equal to storage cost (2) Equal to transportation cost
(3) More than transportation cost (4) Less than transportation cost
17. Government aims Doubling farmers' Income by :
- (1) 2030 (2) 2022 (3) 2020 (4) 2050
18. In distress sale :
- (1) Marketed Surplus > marketable Surplus
(2) Marketed Surplus < marketable Surplus
(3) Marketed Surplus = marketable Surplus
(4) No relation between two

19. The elasticity of substitution in CES production function is equal to :
- (1) 0 (2) < 0
 (3) Less than infinity (4) Between 0 and infinity
20. In the production function $Y = 0.53X_1^{0.25} X_2^{0.36} X_3^{0.34}$, return to scale is :
- (1) Constant (2) Increasing (3) Decreasing (4) 0
21. Constraints that can be removed from a system of linear constraints without changing the feasible region are called :
- (1) Redundant Constraints (2) Optimal Constraints
 (3) Feasible Constraints (4) Artificial Constraints
22. A variable that is added to an inequality constraint to transform it to equality :
- (1) Slack Variable (2) Simple Variable
 (3) Multiple Variable (4) Explanatory Variable
23. In case proportionate change in input quantity ratio is 5 and proportionate change in RTS is 2, then the elasticity of substitution will be :
- (1) 0 (2) 1 (3) 2.5 (4) 0.4
24. In simplex method the slack, surplus and artificial variables are restricted to be :
- (1) Multiplied (2) Negative (3) Non-Negative (4) Divided
25. When solution of the objective function tends to infinite, it is said to be a
- (1) Linear Solution (2) Unbound Solution
 (3) Degenerate Solution (4) None
26. The marginal product of labor curve shows the change in total product *resulting* from a :
- (1) one-unit increase in the quantity of labour used, letting other resources vary
 (2) one-unit increase in the quantity of labour used, holding constant other resources.
 (3) change in the cost of a variable resource.
 (4) change in the cost of a fixed resource.

27. The reason the marginal cost curve eventually increases as output increases for the typical firm is because :
- (1) of diseconomies of scale. (2) of minimum efficient scale.
 (3) of the law of diminishing returns. (4) normal profit exceeds economic profit.
28. The larger the diameter of a natural gas pipeline, the lower is the average total cost of transmitting 1,000 cubic feet of gas to 1,000 miles. This is an example of :
- (1) economies of scale. (2) normative economies.
 (3) diminishing marginal returns. (4) an increasing marginal product of labor.
29. A demand function for a good is given by $Q = 100 - 4P^2$, where Q = quantity demanded per unit of time and P = the price per unit. At a price of 4, the value of the price elasticity of demand is approximately equal to which of the following ?
- (1) 4 (2) 36 (3) 3.6 (4) 1
30. The total fixed cost curve :
- (1) Moves away from origin with increase in output
 (2) Remains constant at all output levels
 (3) Moves towards origin with increase in output
 (4) Rectangular hyperbola in shape
31. When is the isoquant L-shaped ?
- (1) The two factors are complementary
 (2) The two factors are perfect substitutes
 (3) The two factors are used in fixed proportion
 (4) The two factors are imperfect substitutes
32. As income increases, the average propensity to consume :
- (1) Increases (2) Decreases
 (3) Remain constant (4) First decreases than increases

33. ICOR is :
- (1) Ratio of capital and output
 - (2) Marginal productivity of capital
 - (3) Ratio of change in capital to one unit change on output
 - (4) Real GDP per hour of labor
34. Speculative demand of money is :
- (1) Perfectly interest elastic
 - (2) Relative interest inelastic
 - (3) Perfectly interest inelastic
 - (4) Unitary interest elastic
35. Consumption function studies the relationship between consumption and :
- (1) Saving
 - (2) Income
 - (3) Investment
 - (4) Employment
36. The key feature of oligopoly is :
- (1) Excess capacity
 - (2) High profitability
 - (3) Product differentiation
 - (4) Interdependence of firms
37. The point of optimum product combination is :
- (1) MRTS of inputs $>$ price ratio of inputs
 - (2) MRTS of inputs $<$ price ratio of inputs
 - (3) MRPS of products is inversely equal to price ratio of products
 - (4) MRTS of inputs is inversely equal to price ratio of inputs
38. Which of the following is correct ?
- (1) $MR = P(1 - (1/e))$
 - (2) $P = MR(1 - (1/e))$
 - (3) $e = P(1 - (1/MR))$
 - (4) $MR = P(1 - (1/P))$
39. Engel Curve shows relationship between :
- (1) income and interest
 - (2) income and food expenditure
 - (3) interest and money supply
 - (4) income elasticity and price elasticity
40. Expansion path of production theory is analogous in consumption theory to the :
- (1) budget constraint line
 - (2) Engel Curve
 - (3) income consumption line
 - (4) price consumption line