

HALL TICKET

ANDHRA UNIVERSITY : VISAKHAPTANAM

SCHOOL OF DISTANCE EDUCATION

**APPLICATION FORM FOR ENTRANCE TEST FOR ADMISSION
INTO THREE YEAR & TWO YEAR MBA (Marketing / Finance / HRM) /
MCA PROGRAMME 2016 - 2017**

Time & Date : 10.00 am to 12.30 pm 11-09-2016

Hall Ticket No. :

Test Centre : Srikakulam / Visakhapatnam /Gajuwaka / Kakinada / Rajahmundry / Vijayawada / Hyderabad.

(To be filled in by the candidate in his / her own handwriting and to be submitted along with the application)

1. Name of the Candidate : _____
(in Block Letters)
2. Name of the Parent / Husband : _____
3. Identification Marks a) _____
b) _____

Latest Passport size
Photograph to be
affixed and duly
attested by
Gazetted Officer

I do hereby attest that the candidate has signed in my presence.

Signature of the Attesting Officer
With official stamp

Signature of the Candidate

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INSTRUCTIONS TO THE CANDIDATE

1. Candidates are advised to be present in the test hall 15 minutes before the commencement of the test.
2. Candidates will not be admitted to the Entrance Test after 30 minutes of the commencement of the test. Candidates once admitted will not be allowed to leave the hall till half-an-hour before the closing time of the entrance test.
3. Hall Ticket shall be produced at the gate of the test centre and also in the hall at the time of the test, failing which the candidate will not be allowed to appear for the Entrance test.
4. **PLEASE NOTE** : YOUR SCRIPT WILL NOT BE VALUED IF YOU WRITE ANY IRRELEVANT MATTER OR SYMBOLS, INCLUDING RELIGIOUS MARKS AND SYMBOLS, PRAYERS OR ANY COMMUNICATION WHATSOEVER, ANYWHERE, EITHER ON THE COVER SHEET OR INSIDE THE SCRIPT.
5. ANSWER MUST BE WRITTEN IN BLUE/BLACK INK FOUNTAIN OR BALL PEN ONLY (SKETCH PEN, PENCIL OR INK OR ANY OTHER COLOUR IS NOT ALLOWED)
6. HALL TICKET MUST BE PRESERVED TILL THE TIME OF ADMISSION OF THE COURSE.
7. No. T.A. and D.A. will be paid for any journey undertaken by the candidate for the Entrance test.
8. Adoption of any kind of unfair means at the time of Test or any act of impersonation will result in invalidation of his / her script and forfeiture of his / her claim for taking the Test besides criminal action as per law. Decision of the Chief Superintendent of the Test Centre shall be final on these matters.
9. Issue of Hall Ticket appearance at the test, does not automatically entitle a candidate for admission.
10. Calculators or any other aids are not allowed in the Test Hall.
11. Any rough work is to be done only on the blank sheet provided for the purpose in the Test Booklet.
12. Attestation on the Application Form and Hall Tickets can be made by any Gazetted Officer / Principal of a College / A University Professor.
13. Each question will have four alternative choices with one correct / appropriate answer. Candidate has to choose correct / appropriate answer and has to write its number in the relevant question number box on the answer sheet. If any alteration is to be made, strike off the previous one and write the correct number neatly in the box.

(Cell Phones are strictly prohibited in the Examination Hall)

Answers with overwriting will be ignored while awarding marks.

INSTRUCTIONS TO THE CANDIDATE

1. Candidates are advised to be present in the test hall 15 minutes before the commencement of the test.
2. Candidates will not be admitted to the Entrance Test after 30 minutes of the commencement of the test. Candidates once admitted will not be allowed to leave the hall till half-an-hour before the closing time of the entrance test.
3. Hall Ticket shall be produced at the gate of the test centre and also in the hall at the time of the test, failing which the candidate will not be allowed to appear for the Entrance test.
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SCHOOL OF DISTANCE EDUCATION
VISAKHAPATNAM 530 003 : ANDHRA PRADESH
MBA (Marketing / Finance / HRM) / MCA TEST
INSTRUCTIONS BOOK-LET

Last date for receipt of filled in application form : 24-08-2016 Upto 5.00 p.m

Eligibility for appearing the Test :

<p>A) 3 - Year MBA :</p> <p>a) Marketing Management b) Finance Management c) Human Resources Management</p>	<p>Any graduate except BFA and BAOL of Andhra University or any other University recognised by Andhra University as equivalent there to, with 50 per cent marks (SC / ST / BC candidates with 45% marks) is eligible. Further, he / she must also have studied Mathematics as one of the subjects at SSC / X class / Intermediate level. The candidate, with professional qualification like BE./B.Tech/ B.Pharm / Medicine / CA / ICWA / CS / AMIE /AIETE, etc. are also eligible.</p>
<p>B) 2 - Year MBA :</p> <p>a) Marketing Management b) Finance Management c) Human Resource Management</p>	<p>Any graduate except BFA and BAOL of Andhra University or any other University recognised by Andhra University as equivalent there to, with 50 per cent marks (SC / ST / BC candidates with 45% Marks) is eligible. Further, he / she must also have studied Mathematics as one of the subjects at SSC/X class / Intermediate level. The candidate, with professional qualification like BE / B.Tech / B.Pharm / Medicine / CA / ICWA / CS / AMIE / AIETE, etc. are also eligible.</p> <p>Besides the above, the candidates, who have 2 years in - service experience in an organization, after graduation, as on 1st July, 2016 can seek admission in 2 - year MBA course (Marketing / Finance / HRM).</p>
<p>Note : Candidates, who qualified in ICET - 2016 or the Candidates, who completed 5 years of service after graduation in the respective fields, need not appear for Entrance Examination and can seek admission directly.</p>	
<p>C) MCA :</p> <p>i) Educational qualification : Candidates should have passed Bachelor's degree in any faculty, except BFA and BAOL of Andhra University or any other University recognised by Andhra University as equivalent there to, with 50% marks (SC / ST / BC candidates with 45% marks) besides passing Intermediate or +2 examination with Maths as one of the subjects of study.</p> <p>ii) The Course of Study for MCA Programme shall extend over a period of three Academic Years. However in case of candidates with PGDC PA of AU, the study period is two years.</p>	
<p>Note : Candidates, who qualified in ICET - 2016 need not appear for Entrance Examination and can seek admission directly.</p>	

II. Schedule of dates :

- | | |
|---|---|
| a) Commencement of sale of application forms | : 01-08-2016 |
| b) Last date for receipt of filled in application form | : 24-08-2016 |
| c) Last date for receipt of filled in application form With a fine of Rs 300/- upto | : 05-09-2016 |
| d) Date and time of Entrance Test | : 10.00 am to 12.30pm. 11-09-2016 (Sunday) |

III. Cost of application form for Entrance Test : ₹. 300/- (By Hand)
(Inclusive of registration and test fee) : ₹. 350/- (By Post)

Application must be affixed with an attested passport size photograph taken after 01/01/2016. Candidates indulging in impersonation are liable for prosecution inviting a punishment of imprisonment of 3 to 7 years with or without fine ranging from Rs.5000/- to Rs.20,000/-.

IV. **Medium of Test : English only**

Hall-tickets will be issued to candidates in person one day before the commencement of the examination at the respective centres.

- Examination Centers :**
- 1) Govt. Arts College for Men, Srikakulam
 - 2) School of Distance Education, A.U. Campus, Visakhapatnam.
 - 3) TSR & TBK Degree College, Gajuwaka, Visakhapatnam.
 - 4) PR Govt College, Kakinada
 - 5) Govt. Arts College, Rajahmundry
 - 6) Satavahana College, Chuttagunta, Vijayawada.
 - 7) R.G. Kedia College of Commerce, Near New Chadarghat Bridge, Hyderabad.

The number of seats are limited. Rule of reservation will be followed as per the norms of the University. Rank obtained in the test will be valid for admission into MBA (Marketing / Finance / HRM / Hospital Administration) / MCA course offered by the School of Distance Education, Andhra University for the academic year 2016-17 only.

* Candidates can also download the application form from our website WWW.andhrauniversity.edu.in/sde. However they have to pay ₹. 300/- by way of DD drawn in favour of Registrar A.U. towards cost of application form along with the application form and submit the same along with the application.

SERVICE CERTIFICATE

(To be signed by Head of the Department / Employer)

The certifying authority is solely responsible for any incorrect information)

This is to certify that Sri / Smt./ Kum _____

S/o D/o W/o. _____ is working in our Office / Institution as _____

from _____ to till date (Total Service. Years _____ Months _____ Days _____ as

on the last date of submission of application form. His / Her Scale of pay is Rs. _____ and his / her

gross salary is Rs. _____ PM (Rupees _____). His / Her

Services are found to be Good / Satisfactory during the above period.

We have no objection to Sri / Smt / Kum _____

joining in MBA / MCA Programme offered by School of Distance Education, Andhra University if given admission.

Place :

Signature :

Date :

Designation:

Office Seal :

* Applicable to the candidates who are seeking admissions into two year MBA Programme.

CHECK LIST :

Enclose the following with Application form :

1. Xerox Copies of Service Certificate from Head of the Department / Employer. (incase of two year MBA Programme).
2. Degree Certificate / Provisional Certificate of qualifying examination. (Xerox Copy Only).
- 2a. Intermediate or +2 examination certificate (in case of MCA Programme)
3. S.S.C. or equivalent certificate with Date of Birth
4. Xerox Copies of Caste Certificate in case of SC/ST/BC Candidates.
5. Two Self-Addressed envelopes of 9" x 4" size.

Note : *Original Certificates are to be produced at the time of admission.*

SYLLABUS AND MODEL QUESTION PAPERS

Section - A Analytical Ability : 75Q (75 Marks)

1. Data Sufficiency : 20Q (20 Marks)

A question is given followed by data in the form of two statements labelled as I and II. If the data given in I alone is sufficient to answer the question then choice (1) is the correct answer. If the data given in II alone is sufficient to answer the question choice (2) is the correct answer. If both I and II put together are sufficient to answer the question but neither statement alone sufficient, then choice (3) is the correct answer. If both I and II put together are not sufficient to answer the question additional data is needed, then choice (4) is the correct answer.

Problem Solving 55 : Q (55 Marks)

a) Sequences and Series 25 : Q (25 Marks)

Analogies of numbers and alphabets, completion of blank spaces following the pattern in a:b: :c:d relationship; odd thing out: missing number in a sequence or a series.

b) Data Analysis : 10 Q (10 Marks)

The data given in a Table, Graph, Bar diagram, Pie Chart, Venn Diagram or a passage is to be analysed and the questions pertaining to the data are to be answered.

Coding and Decoding Problems 10 : Q (10 Marks)

A code pattern of English Alphabet is given. A given word or a group of letters are to be coded or decoded based on the given code or codes.

Date, Time & Arrangement Problems : 10 Q (10 Marks)

Calendar problems, Clock Problems, blood relationships, arrivals, departures and schedules: seating arrangements, symbol notation interpretation.

Section - B: Mathematical Ability : 75 Q (75 Marks)

I. Arithmetical Ability : 35 Q (35 Marks)

Laws of indices, ratio and proportion; surds; numbers and divisibility, 1.c.m. and g.c.d; Rational numbers,; Ordering; Percent Profit and loss; Partnerships, Pipes and cisterns, time, distance and work problems, areas, and volumes, mensuration, Modular Arithmetical.

II. Algebraical and Geometrical Ability : 30 Q (30 Marks)

Statements, Truth tables, implication, converse and inverse, Tautologies-Sets, Relations and functions, applications, Equation line in different forms. Trigonometry - Trigonometric ratios, Trigonometric ratios of standard angles ($0^\circ, 30^\circ, 45^\circ, 60^\circ, 90^\circ$) Trigonometric identities: simple problems on heights and distances Polynomials; Remainder theorem and consequences; equations and expressions; Progressions, Binomial Theorem, Matrices, Notion of a limit and derivative Plane geometry. Triangles, Quadrilaterals, Circles, Coordinate geometry-distance between points and

III. Statistical Ability : 10 Q (10 Marks)

Frequency distributions, Mean, Median, Mode, Standard Deviation, Correlation, Simple Problems on Probability

Section-C : Communication Ability : 50 Q (50 Marks)

Objectives of the Test

Candidates will be assessed on their ability to

1. Identify vocabulary used in the day-to-day communication.
2. Understand the functional use of grammar in day-to-day communication as well as in the business contexts.
3. Identify the basic terminology and concepts in computer and business contexts (letters, reports, memoranda, agenda, minutes etc.)
4. Understand written text and drawing inferences.

Part 1 : Vocabulary 10Q (10M)

Part 2 : Business and computer terminology 10Q (10 M)

Part 3 : Functional Grammar

Part 4 : Reading Comprehension (3 Passages) 15Q (15 M)

**M.B.A. / M.C.A. ENTRANCE TEST
MODEL QUESTION PAPER**

Time: 150 Minutes

**Max. Marks: 200
(Marks:75)**

**Section – A
(Analytical Ability)**

(i) Data sufficiency :

Directions for questions 1 to 20: Each question is followed by two statements I and II. Answer the question using the following instructions.

- Mark choice:
1. If the question can be answered by the statement I alone.
 2. If the statement II alone is sufficient to answer the question.
 3. If both the statements I and II are sufficient to answer the question, but neither of them alone is not sufficient
 4. If both the statements I and II together are not sufficient to answer this question and additional data is required.

1. What is the average of a, b, c, d ?
 - I. $a + b + c = d - 24$
 - II.
2. What is the average age of A, B ?
 - I. Their ages differ by 8
 - II. The sum of their ages is 18
3. How old is Mr X?
 - I. The retirement age of Mr X is 62 years
 - II. Mr X will retire in ten years
4. In how many days Mr A alone can complete the work?
 - I. A and B together can complete the work in 26 days $6(a+b+d) = 49$ and $\frac{c}{2} = 5$
 - II. A takes 30 days more than B to complete the work alone
5. How many students in the class are left-handers?
 - I. 80% of the students are right handers
 - II. 40% of left handers are girls
6. How much profit Mr A earns by selling 20 motorbikes?
 - I. Each motor bike is sold at Rs. 49,000
 - II. Each motor bike has maximum speed 100 k.m.ph.
7. What is the volume of the right circular cone?
 - I. The semi vertical angle of the cone is 30°
 - II. The Lateral surface area of the cone is 20 sq. units
8. Who is tallest among X, Y, Z ?
 - I. X is taller than Y
 - II. Z is taller than Y
9. Does 8 divide A?
 - I. A is divisible by 24
 - II. A is divisible by 66

10. Is $\frac{1}{2}$ an integer ?
- $\frac{1}{2}$ is a negative integer
 - $\frac{1}{2}$ is an integer
11. What is the value of $\frac{1}{2}$?
- $a + b = 10$
 - $\frac{1}{2}$
12. What is the value of $\frac{1}{2}$?
- $\frac{1}{2}$
 - $\frac{1}{2}$
13. What is the slope of the line L?
- The line L is passing through the point (7, 5)
 - The line L is perpendicular to the line $2x + 3y = 5$
14. Is $\frac{1}{2}$ an irrational number ?
- $\frac{1}{2}$ is a rational number
 - $\frac{1}{2}$ is a rational number
15. What is A to B?
- B is a brother of A
 - A is the father of Mr. X.
16. What is the area of circle C ?
- Area of the square S is 49 sq. inches
 - The diameter of circle C is equal to the perimeter of the square S
17. How many factors the positive integer X have ?
- The number of factors of X is 15
 - X is not a prime number
18. Is $\frac{1}{2}$?
- $\frac{1}{2}$
 - $\frac{1}{2}$
19. What is the product of the positive integers m and n ?
- L.c.m of m, n is 36
 - g.c.d. of m, n is 2
20. What is the first term in the sequence of numbers?
- The given sequence of number are in Arithmetic progression
 - The second term in the sequence is 5 and the last term is 65

(b) Coding problems :

In a certain code A, B, C, D, are coded by the following rules.

- (i) Vowels are coded as 3 times the number represented by them in the sequence -1, 2, 3, 4, For example code for A is 3, E is 15 etc.
- (ii) Consonants are coded as 2 times the number represented by them in the sequence 1, 2, 3, 4, For example B is coded as 4, C as 6 and so on.
- (iii) The code number of a word is the sum of the codes of the letters involved in it Answer questions 36 to 40.

36. The code number of LION is
1) 124 2) 100 3) 136 4) 144
37. The code number of FARE is
1) 84 2) 61 3) 66 4) 88
38. The word with <x>de number 99 is
1) CAT 2) TIP 3) MEN 4) RUB
39. Which of the following pairs of words have same code number
1) BEN, MAD 2) CAN, DET 3) PIG, FEW 4) LIT, JUG
40. A two letter word with code number 65 is
1) UP 2) AT 3) GO 4) IS

In a certain code, the code number of a letter in the English alphabet is defined as sum of the number represented by the consonants that come before that letter when A,B,C,D,E, are given numbers 1,2,3, 4, 5 respectively. Now answer the following questions 41 to 45.

41. The code number of the letter P is
1) 90 2) 100 3) 110 4) 120
42. The Code number of the letter I is
1) 30 2) 36 3) 39 4) 45
43. The number of letters with code number 76 is
1) 0 2) 1 3) 2 4) 3
44. The letters) whose code number is 180 is (are)
1) T 2) TU 3) U,V 4) W
45. The number of pairs having same code number is (both the letters in the pair have same code number)
1) 2 2) 3 3) 4 4) 5

55. How many people read at least two news papers?
 1) 100 2) 120 3) 180 4) 140

Direction for questions 56 to 60:

Read the following information and answer questions 56 to 60.

The following table gives the details of commodities P, Q, R, S, T with their costs, required for a family in a month in the year 2010, 2014.

Commodity	Quantity required in a month in kgs	Rate per kg in rupees	
		2010	2014
P	40	30	50
Q	10	60	80
R	5	120	130
S	15	80	95
T	20	60	75

56. The total amount spent on all the commodities in the year 2014 in rupees is
 1) 430 2) 5250 3) 6375 4) 6125
57. The amount spent on P,R,S in the year 2010 is how much more than the amount spent on Q, T, in the year 2014 in rupees is
 1) 3000 2) 2000 3) 700 4) 1200
58. The percentage of the amount spent on P and Q in the year 2010 is the total amount spent on all commodities in that year is
 1) $\frac{75}{30} = 34, 4 * 2 = 20,$ 2) $\frac{30}{16}$ 3) $\frac{15}{16}$ 4) $\frac{15}{16}$
59. The amount spent on Q, R, T, in both years put together in rupees is
 1) 5250 2) 5350 3) 2900 4) 2450
60. The percentage increase of the total amount spent in the year 2014 over the same in the year 2010 is
 1) 2) 3) 4)

(d) Date, time and arrangement problems:

61. If _____ then _____
 1) 44 2) 41 3) 48 4) 54
62. The smaller angle between the hours hand and minutes hand in a clock when the time is 9 hours 30 minutes is
 1) 90° 2) 105° 3) 100° 4) 95°
63. If 23rd July 2002 is a Friday, then 28th August of 2003 is
 1) Friday 2) Saturday 3) Sunday 4) Monday

SECTION - B
(Mathematical Ability)

Marks: 75

76. By selling an article for Rs. 1 980 a man gains 1 0%. To get a profit of 25%, the selling price of the article should be
 1) Rs. 2,100 2) Rs. 2,150 3) Es. 2,200 4) Rs. 2,250
77. The cost price of 1 2 pens is same as selling price of 1 0 pens. Then what is the profit /loss?
 1) 20% profit 2) 30% profit 3) 15%profit 4) 12%profit
78. If an article is sold at a profit of 1 5% instead of a profit of 12%, the seller gets Rs. 72 more. The cost price of the article is
 1) Rs. 1,800 2) Rs.2,100 3) Rs. 2,400 4) Rs. 2,700
79. A bicycle was sold at a loss of 10%. If it were sold Rs. 630 more he would have got a profit of 8%. The cost price of the bicycle is
 1) Rs.3,000 2) Rs.3,500 3) Rs. 6,000 4) Rs. 7,000
80. A. B, C are partners in a business. A invests Rs. 1,800 for 9 months, B invests Rs. 2,100 for 8 months and C invests Rs. 2,400 for 6 months. If there is a profit of Rs. 1,580, what is the share of C in the profit?
 1) Rs.480 2) Rs.560 3) Rs.540 4) Rs.420
81. P started a business with capital of Rs. 7,500. After 'X' months. Q joins the business with a capital of Rs. 1 0,000. At the end of the year, they shared the profit in the ratio 9:8 then X =
 1) 8 2) 4 3) 9
~~7) 7~~ 4) 3
82. The equation of the line passing through the point and perpendicular to the line is
 1) 2) 3) 4)
83. The ratio of two numbers is 7:11. After adding 11 to each number, the ratio is 15:22. Than
 1) 301 2) 329 3) 378 4) 252
84. If of of is 54, then x =
 1) 1000 2)1500 3) 2000 4) 3000
85. If HCF of two numbers is 8 and the product of the numbers is 896, their LCM is
 1) 116 2) 124 3) 112 4) 118
86. A and B can do a piece of work in 1 0 days, B and C can do it in 1 8 days and, C and A can complete it in 1 5 days. In how many days A alone can complete the work ?
 1) 12 2) 15 3) 20 4) 18

107. The maximum value of _____ is _____
 1) 5 2) _____ 3) 11 4) _____
108. The value of \sin _____ is equal to _____
 1) $\frac{\sqrt{3}}{2}$ 2) _____ 3) _____ 4) _____
109. From a point at a distance of 100 meters from a pole, the angles of elevation of the top of the pole and the top of a flag staff on the pole are respectively 30° and 60° . Then the length of the flag staff in meters is _____
 1) _____ 2) _____ 3) _____ 4) _____
110. If _____ then $x^3 - 9x^2 + 18x + 5 =$ _____
 1) 12 2) 24 3) 17 4) 29
111. If _____ then $x + \frac{1}{x} =$ _____
 1) 14 2) _____ 3) _____ 4) 7
112. _____
 1) 1 2) _____ 3) 2 4) _____
113. If _____ then $\frac{2^x + 6}{2^x - 4} =$ _____
 1) $\frac{6}{7}$ 2) _____ 3) _____ 4) _____
114. If _____ then the largest value of m such that _____ divides _____ is _____
 1) 3 2) 6 3) 8 4) 5
115. If _____ then _____
 1) 28:55 2) 35:44 3) 55:28 4) 44:35
116. If _____ then _____
 1) 3:4:5 2) 8:15:20 3) 5:4:3 4) 20:15:8
117. If _____ centimeters and _____ meters then _____
 1) 1:25 2) 4:1 3) 25:1 4) 1:4
118. The largest perfect square with 4 digits is _____
 1) 9604 2) 9801 3) 9999 4) 9921

119. If a polynomial leaves remainders -2, -3 when divided by _____ respectively, then the remainder we get when the same polynomial is divided by _____ is
- 1) _____ 2) _____ 3) _____ 4) _____
120. The remainder we get when _____ is divided by _____ is
- 1) _____ 2) _____ 3) _____ 4) _____
121. The coefficient of _____ in the expansion of _____ is
- 1) _____ 2) $11_{c_4} \cdot 3^7 \cdot 4^4$ 3) $11_{c_2} \cdot 3^9 \cdot 4^2$ 4) $11_{c_5} \cdot 3^6 \cdot 4^5$
122. The number of terms in $(2x-3y)^{13} + (2x-3y)^{13}$ is
- 1) 14 2) 7 3) 13 4) 6
123. $\frac{2}{3} + \left(\frac{2}{3}\right)^2 + \left(\frac{2}{3}\right)^3 + \dots$ to infinite terms is equals to
- 1) 3 2) 1 3) 2 4) infinity
124. The sum of the first 8 terms of the sequence 1,3,5,7, ,,..... is ;
- 1) 24 2) 36 3) 49 4)64
125. If n^{th} term is the first negative term of the sequence $\frac{45-9n}{(3)40x^2}$, 15,112,..... then
- 1) 38 2) 39 3) 40 4) 41
126. The sum of all multiples of 5 between 1 and 501 is
- 1)25250 2)5050 3) 2525 4)505
127. $9 + 99 + 999 + \dots$ to 10 terms =
- 1) _____ 2) _____ 3) $\frac{10^{11}-10^2}{9}$ 4) $\frac{10^{12}-10}{9}$
128. The least positive integer that is exactly divisible by 4, 6, 10, 12 is
- 1) 120 2) 60 3) 180 4) 30
129. If _____ then $x + \frac{1}{x} =$
- 1) 12 2) _____ 3) 6 4) _____
130. If 20 is added to 75% of a number _____ gives the same number _____, then
- 1) 90 2) 100 3) 60 4) 30

131. Two pipes P and Q can fill a tank in 6, hours and 12 hours respectively. If both the pipes are turned on at the same time, the time taken to fill the tank is
- 1) 4 hours 2) 8 hours 3) 12 hours 4) 3 hours
132. A pipe can fill a tank in 4 hours. Because of a hole in the tank, it takes 5 hours to fill the tank. In how much time the hole can empty the full tank ?
- 1) 10 hours 2) 15 hours 3) 20 hours 4) 25 hours
133. A car covers a distance of 100 km in 75 minutes. If the speed of the car is reduced by 5 kmph, the time it takes to cover the same distance is
- 1) 80 minutes 2) 85 minutes 3) 90 minutes 4) 120 minutes
134. Two cars A, B start from the same point on perpendicular roads at a speed of 60 kmph and 80 kmph respectively. After 2 hours the shortest distance between the two cars is
- 1) 100 km 2) 150 km 3) 200 km 4) 250 km
135. If $\log_2 x = 3$ then $x =$
- 1) 8 2) 12 3) 16 4) 18
136. If $\log_2 x = 3$ then $x =$
- 1) 8 2) 13 3) 5 4) 9
137. If N is the set of all natural numbers and $R = \{(m, n) \in N \times N \mid m + n \text{ is an even integer}\}$ then the relation R on N is
- 1) reflexive only 2) reflexive and symmetric only
3) reflexive and transitive only 4) equivalence relation
138. The ascending order of the rational numbers $\frac{11}{12}, \frac{13}{14}, \frac{15}{16}, \frac{10}{11}$ is
- 1) $\frac{10}{11} > \frac{11}{12} > \frac{13}{14} > \frac{15}{16}$ 2) $\frac{11}{12} > \frac{13}{14} > \frac{10}{11} > \frac{15}{16}$ 3) $\frac{13}{14} > \frac{15}{16} > \frac{10}{11} > \frac{11}{12}$
139. If $3^{36} \equiv x \pmod{10}$ and $0 \leq x \leq 9$, then
- 1) 3 2) 9 3) 7 4) 1
140. The remainder obtained when the product $74 \times 75 \times 76 \times 77$ is divided by 13 is
- 1) 7 2) 9 3) 11 4) 13
141. When a year is selected at random the probability that it is a leap year is
- 1) $\frac{1}{4}$ 2) $\frac{1}{3}$ 3) $\frac{1}{2}$ 4) $\frac{1}{5}$

SECTION - C
(Communication Ability)

Marks: 50

Directions for (151 -15 5): Fill in the blanks with the most appropriate word from the given choices:

151. Scientists believed that a vaccine derived from chimpanzees may _____ a safer way to present and treat smallpox.

- 1) product 2) provide 3) eliminate 4) determine

152. A/ An _____ is a prisoner or captive.

- 1) intern 2) internee 3) interner 4) interant

153. _____ by both financial and emotional problems, the father decided he had enough and slipped away from the house quickly at dawn.

- 1) pressured 2) grind 3) beset 4) drowned

154. Contrary to popular belief, present day historians see the renaissance as an economic _____ and argue that a lot of peasants and urban poor, worsened during this period.

- 1) progression 2) evolution 3) regression 4) flexibility

155. He was ordered to pay _____ charges totalling thirty million dollars last year.

- 1) fine 2) punitive 3) substantial 4) huge

Direction for (156-160); choose the word which is most nearly the same in meaning as the word or group of words given in capitals in each question.

156. CAPRICIOUSNESS

- 1) general agreement 2) gullibility 3) readiness to obey 4) unpredictability

157. VIRTUOSO

- 1) superfluity 2) sluggishness 3) lack of friendliness 4) expert performer

158. STUPEFY

- 1) examine 2) approve 3) reduce in intensity 4) astound

159. RESCIND

- 1) drive away 2) support 3) cancel 4) waver

160. PROFLIGATE

- 1) unwieldy 2) cautious 3) impudently taking liberty 4) dissolute

Choose the right answer to fill in the blanks (161-170)

161. Which multiplexing technique transmits analog signals ?
1) FDM 2) Synchronous TDM 3) Asynchronous TOM 4) None of these
162. The speed at which the monitor accepts data is called _____.
1) Bandwidth 2) Interlacing 3) Response time 4) Scanning
163. Array is
1) Complex data structure 2) Simple data structure
3) Linear data structure 4) Non-linear data structure
164. In which technique is data stored in several disk units by breaking them into smaller pieces and storing each piece in separate disk ?
1) EDI 2) RAID 3) DISK 4) FLOPPY
165. Microcomputer hardware consists the following three basic categories of physical equipment.
1) Keyboard, monitor, hard drive
2) System unit, Input /Output, Secondary storage
3) System unit, Primary storage, Secondary storage
4) None of these
166. Tape Drive gives _____ access to data.
1) Timely 2) Sporadic 3) Random 4) Sequential
167. Which of the following commands, would you use to change your password in UNIX system?
1) pass 2) en pass 3) passwd 4) set pass
168. A scripting language similar to and which runs only on a browser is
1) FORTRAN 2) Basic 3) FOXPRO 4) Java script
169. Magnetic tape is not practical for applications where data must be quickly recalled because tape is
1) A random access medium 2) Fragile and easily damaged
3) Read only medium 4) A sequential access medium
170. In shell programming, which of the following commands is used for character translation ?
1) tr 2) dd 3) grep 4) sed
- Directions (171-175): Each of the following has four parts forming a sentence. The error will be found in one of the four parts. Identify the part in which the error occurs.
- 171 1) The judge asked the man 2) if the bag he had lost
3) contain five thousand rupees 4) and the man replied that it did

172. 1) I trust you will
 3) a few minutes more
- 2) show forbearance to me
 4) so that I can finish this work
173. 1) The ground outside the village
 3) the enemies of mankind
- 2) abounding with frogs and snakes
 4) is soft and marshy
174. 1) We are all short-sighted
 3) and our views are not extended
- 2) and very often see but one side of the matter
 4) to all that has a connection with it
175. 1) Just laws are no restraint with
 3) for the good man desires nothing
- 2) the freedom of the good
 4) which a just law interfere with

Directions (176-180): Each of the following sentence may have one or two or three mistakes or have none at all. Mark (1) if there is one mistake, (2) if there are two mistakes, (3) if there are three mistakes and (4) if there are no mistakes.

176. The committee was divided in its opinion regarding this issue.
177. Among you and me, he is definitely in the wrong.
178. The teacher drew two radii.
179. If I were him, I would not misbehave like this.
180. Hardly, the judge entered the courtroom, than advocates stood up and greeted him.

Directions (181-185): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, four words are given, one of which fits the blank appropriately. Find out the appropriate word in each case.

For the past 35 years a professor of Zoology named Valerio Sbordonni has explored the caves and underground chambers of Mexico in search of new forms of life. He has found these in abundance to say the least. To date Sbordonni has discovered more than 150 species of _____ (181) unknown cave dwelling creatures. In one chamber _____ (182) he found over forty (183) species of butterfly, an incredible variety for such an inhospitable environment. Many of these species, Sbordonni believes _____ (184) underground millions of years ago to avoid extinction and adapted to life beneath the earth's surface. Obviously conditions for life underground are far from ideal, and Sbordonni believes that only severe climatic changes, probably caused by shifting glaciers, could _____ (185) such a migration.

181. 1) hitherto 2) hereby 3) henceforth 4) herewith
182. 1) exclusively 2) only 3) alone 4) solely

183. 1) dissimilar 2) distinct 3) disparate 4) disconnected
184. 1) retired 2) shrank 3) retreated 4) departed
185. 1) conjure-up 2) account for 3) bear out 4) carry off

Directions (186-195): Read the following passage carefully and answer the questions given below it.

By the time a child is six or seven she has all the essential avoidances well enough by heart to be trusted with the care of a younger child. And she also develops a number of simple techniques. She learns to weave firm square balls from palm leaves, to make pinwheels of palm leaves or frangipani blossoms, to climb a coconut tree by walking up the trunk on flexible little feet, to break open a coconut with one firm well-directed blow of a knife as long as she is tall, to play a number of group games and sing the songs which go with them, to tidy the house by picking up the litter on the stony floor, to bring water from the sea, to spread out the copra to dry and to help gather it in when rain threatens, to go to a neighboring house and bring back a lighted faggot for the chiefs pipe or the cook-house fire.

But in the case of the little girls all these tasks are merely supplementary to the main business of baby-tending. Very small boys also have some care of the younger children, but at eight or nine years of age they are usually relieved of it. Whatever rough edges have not been smoothed off by this responsibility for younger children are worn off by their contact with older boys. For little boys are admitted to interesting and important activities only so long as their behaviour is circumspect and helpful. Where small girls are brusquely pushed aside, small boys will be patiently tolerated and they become adept at making themselves useful. The four or five little boys who all wish to assist at the important, business of helping a grown youth lasso reef eels, organize themselves into a highly efficient working team; one boy holds the bait, another holds an extra lasso, others poke eagerly about in holes in the reef looking for prey, while still another tucks the captured eels into his lavalava. The small girls, burdened with heavy babies or the care of little staggerers who are too small to adventure on the reef, discouraged by the hostility of the small boys and the scorn of the older ones, have little opportunity for learning the more adventurous forms of work and play. So while the little boys first undergo the chastening effects of baby-tending and then have many opportunities to learn effective cooperation under the supervision of older boys, the girls' education is less comprehensive. They have a high standard of individual responsibility, but the community provides them with no lesson in cooperation with one another. This is particularly apparent in the activities of young people: the boys organize quickly; the girls waste hours in bickering, innocent of any technique for quick and efficient cooperation.

186. The primary purpose of the passage with reference to the society under discussion is to

- 1) explain some differences in the upbringing of girls and boys
- 2) criticize the deficiencies in the education of girls
- 3) give a comprehensive account of a day in the life of an average young girl
- 4) delineate the role of young girls

187. The word brusquely most nearly means

- 1) quickly 2) gently 3) nonchalantly 4) abruptly

188. The list of techniques in paragraph one could best be described as
- 1) household duties
 - 2) rudimentary physical skills
 - 3) usefull social skills
 - 4) important responsibilities
189. It can be inferred that the high standard of individual responsibility is
- 1) developed mainly through child-care duties
 - 2) only present in girls
 - 3) taught to the girl before she is entrusted with babies
 - 4) actually counterproductive
190. Little girls are deprived of learning the adventurous forms of activities because
- 1) they don't show interest in the outdoor activities
 - 2) they are interested in gossiping
 - 3) they are snubbed and not allowed to take part in the activities,
 - 4) they are interested in doing household chores
191. Young boys learn to organize quickly
- 1) they are superior to girls in terms of mental and physical strength
 - 2) they are provided with many chances to learn to coexist
 - 3) they have formal education in these matters
 - 4) they don't have to take care of the younger children at all
192. The expression innocent of is best taken to mean
- 1) not guilty of
 - 2) unskilled in
 - 3) unsuited for
 - 4) un involved in
193. It can be inferred that in the community under discussion all of the following are important except
- 1) domestic handicrafts
 - 2) well-defined social structure
 - 3) fishing skills
 - 4) formal education
194. Which of the following if true would weaken the author's contention about lessons in cooperation?
- I. Group games played by younger girls involve cooperation
 - II. Girls can learn from watching boys cooperating
 - III. Individual girls cooperate with their mothers in looking after babies
- 1) I only
 - 2) II only
 - 3) I and II only
 - 4) I, II and III

195. Which of the following is the best description of the author's technique in handling her material ?

- 1) Both description and interpretation of observations
- 2) Presentation of facts without comment
- 3) Generalization from a particular viewpoint
- 4) Close examination of preconceptions

Directions: (196-200): In the following passage there are blanks each of which has been numbered. These numbers are printed below the passage and against each, four words are suggested one of which fits the blank appropriately in the context of the whole passage. Find out the appropriate words.

A combination of boredom and, increasingly, absenteeism, ensured that the standard of Eric's work declined alarmingly. Sadie, who had hoped that her son would do well at school, was too _____ (196), a mother to have remained, unaware of the problem for very long, but when the school reports started to _____ (197), just how poorly he was faring, she felt shocked and angry.

One report _____ (198) curtly that Eric was 45* out of 49 pupils. Sadie, typically, was determined that her son should arrest his dizzying decline as speedily as possible and then - she hoped - start to improve. She visited the school and offered to pay for further tuition but was told, 'it would be money down the drain'. This rejection only seemed to _____ (199) Sadie on in her search for a suitable career for Eric. It surprised no one who knew her that she reacted to the undeniably _____ (200) disappointment of this setback in such a remarkably spirited and positive manner.

196. 1) engrossed 3) riveted
 2) mindful 4) attentive
197. 1) proclaim 3) denote
 2) advocate 4) underline
198. 1) professed 3) aired
 2) announced 4) uttered,
199. 1) spur 3) incite
 2) press 4) boost
200. 1) vivid 3) bitter
 2) stark 4) hard