

## **MCA/M.SC.IT ENTRANCE TEST (2012)**

### **Syllabus & Model Question Paper**

The syllabus of the written test for admission to MCA/M.Sc.IT shall consist of Mental Ability, English Comprehension and Mathematics of 12th standard. The test shall be of about two hours duration.

#### **(a) Description of the Test:**

The test is a little different from those normally conducted in schools or colleges. The candidates will be given a test booklet containing questions. For each question, several suggested answers will be given, of which only one answer shall be correct. The questions will have serial numbers, 1,2,3, etc. and the answer choices for each question will be marked as A,B,C,D, etc. A separate answer sheet shall be given to answer the questions.

#### **(b) Methods of answering questions:**

On the answer sheet, for each question there shall be several spaces i.e. O (circle) under the heading A, B, C & D. While answering any question, the index (i.e. A or B or C or D) of the correct answer chosen from the question booklet should be noted and the corresponding O should be blacked with HB pencil against the appropriate question number on the answer sheet. (*See sample answer sheet*)

#### **(c) Important Rules for Candidates:**

- i. Read the directions for each of the sections of the test carefully. The question paper will be divided into several parts. Use your time as economically as possible.
- ii. Do not give more than one answer to any question, as there is only one correct answer to each question. If more than one answer is given for any question, it will be counted as wrong. If after blackening some O on the answer sheet, you want to change your answer, erase the first mark completely and then mark the new one.
- iii. Follow the instructions given by the supervisor. When supervisor asks you **start** or **stop** the test or a section of the test, you must follow his instructions immediately. This is very important.
- iv. You will not be permitted to take rough paper, scales or drawing instruments or calculator into the examination hall. Do your rough work in the space provided on the booklet itself.
- v. After finishing the test submit the test booklet and the answer sheet to the supervisor. Do not take these out of the hall.
- vi. Do not forget to write your roll number and question booklet number on the answer sheet in the space provided for the same.
- vii. The candidates are instructed to be careful while answering the questions. The candidates should answer only those questions for which they are fully confident. They should avoid guessing the answers as for every wrong answer there shall be a deduction of 0.25 marks i.e. a negative marking.
- viii. Eligible candidates shall be issued Admit Cards by post or by hand on request.
- ix. Eligible candidates will be allowed to appear in the Entrance Test on the production of admit card. Those who do not receive their Admit Card prior to the commencement of the test are advised to contact the Office of the University and collect their duplicate Admit Card personally and can also

download from our website [www.bgsbuniversity.org](http://www.bgsbuniversity.org) after submitting attested passport size photograph.

- x. The candidates should remain in touch with the University regarding the declaration of the result, merit list, selection list and other related information and also visit our website [www.bgsbuniversity.org](http://www.bgsbuniversity.org).

#### (d) SYLLABUS

- |    |   |   |     |
|----|---|---|-----|
| 1. | (a) Series-Numeric and Alphabetic<br>(b) Logical Reasoning  | } | 35% |
| 2. | English- Synonyms, Antonyms, Identification of Grammatical Errors etc.  | } | 15% |
| 3. | Arithmetic including Percentage, Interest, Profit and Loss, Time and Work, Height and Distance, Stock and Shares, Ratio and Proportion, Average, Fractions etc.<br>Mathematics covering Trigonometry, Geometry, Algebra , Calculus etc. | } | 50% |

#### (e) SAMPLE QUESTION PAPER

SERIES (INVOLVING LOGIC)

##### Directions for Questions 1-8:

In each question below you will find a series either with integers or with two letters 'a' and 'b' and these are arranged following some pattern or rule. Try to understand the pattern or rule. There are some blank spaces in the series. Your task is to find out the missing integer or letter from the given alternatives and indicate your answer on the answer sheet.

##### Question:

- 1) **a - b ba - b b a a b -**  
A) aba      B) aab      C) bab      D) bba
- 2) **85      80      76      73 \_**  
A) 71      B) 70      C) 75      D) None
- 3) **a - b - a b - b**  
A) aab      B) aba      C) bab      D) bbb
- 4) **105      315      693      --**  
A) 819      B) 1287      C) 455      D) None
- 5) **a - b c a a a b - a**

- A) bc    B) cb    C) ac    D) ca    E) None of these
- 6)  $a - a c a a b - a a$   
 A) ab    B) bc    C) ca    D) ac    E) None of these
- 7)  $5 \ 10 \ 125 \ 3 \ 6 \ \dots$   
 A) 81    B) 136    C) 25    D) 27    E) None of these
- 8)  $1 \ 49 \ 9 \ \dots \ 25 \ \dots$   
 A) 81, 125    B) 16, 136    C) 16, 35    D) 81, 121    E) None of these

## MATHEMATICS

- 9) The expression  $ax^2 + bx + c$  has the same sign as of "a" if  
 A)  $b^2 - 4ac > 0$     B)  $b^2 - 4ac = 0$     C)  $b^2 - 4ac \leq 0$   
 D) "b" and "c" have the same sign as "a"
- 10) If  $a:b = c:d$  then which of the following is true?  
 I)  $bc = ad$     II)  $\frac{a+b}{b} = \frac{c+d}{d}$     III)  $\frac{a+b}{a-b} = \frac{c+d}{c-d}$   
 A) Only I and II are true but III is false.  
 B) I and III are true but II is false.  
 C) II and III are true but I is false  
 D) I, II and III are all true.
- 11) In a business A, B & C invested Rs. 500/-, Rs. 225/- and Rs. 300/- respectively. If the profit earned is Rs. 410/- what will be the share of A?  
 A) Rs. 200/-    B) Rs. 180/-    C) Rs. 120/-    D) None of these
- 12) The If diameter of the circle is doubled, the area becomes  
 A) Twice    B) Thrice    C) Four times    D) Eight times    E) None of these

## REASONING

### Directions for questions 13 & 14:

Each of the following question is followed by two statements labelled by (a) and (b). Use the data / information given in (a) and (b) to decide whether the data are sufficient to answer the question. Record your answer as:

- (A) If only "a" is required.  
 (B) If only "b" is required.  
 (C) Either "a" or "b" will do.  
 (D) Both "a" and "b" are required.  
 (E) More information is needed.

- 13) **Is Ram younger than Shyam?**  
 (a) 15 years ago Shyam was 20 years old.  
 (b) After 10 years Ram will be 30 years old.

14) Is 'X' larger than 'Y'? ('X' and 'Y' are integers)

(a)  $(X - 15)$  is larger than  $(Y + 7)$

(b)  $(X + 1)^2 - (Y + 2)^2$  is positive.

**Directions for Questions 15 & 16:**

In the following questions a pair of words is given followed by 4 additional pairs of words. Select the pair of words from among the four alternatives that best matches the relationship existing between first two words.

15) **HEREDITY : TRAINING**

(A) Cultivated: Acquired

(B) Instinct: Habit

(C) Natural: Hobby

(D) Excuse : Denial

16) **BUD : FLOWER**

(A) Food : Stomach

(B) Baby: Adult

(C) Fruit: Tree

(D) Sun : Sky

**ENGLISH**

**Directions for questions 17 -19:**

In each of the following questions, a word is given followed by four other words marked by A, B, C and D, one of which is nearest in meaning with the given word. Your task is to choose that word and indicate that on the answer sheet. If you do not find any correct answer then indicate "E" as your answer.

17) **INSIPID**

A) Ominous

B) Chink

C) Prosy

D) Avocation

18) **CONTRITION**

A) Indemnity B) Compunction C) Resuscitation D) Garniture

19) **SAGACIOUS**

A) Multigenerous B) Shackle C) Secession

D) Exude

**Directions for questions 20 - 22 :**

In each of the following questions the alphabets of a word are prescribed in a disarranged way. Your task is to arrange them in proper order so that a meaningful word is formed and then indicate on the answers the index of the alphabet that is put at the end.

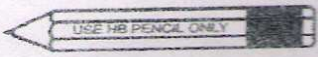
20) **V O R E P**  
(A) (B) (C) (D) (E)

21) **H E F C I**  
(A) (B) (C) (D) (E)

22) **D A L T U**  
(A) (B) (C) (D) (E)

# Rough Work

| EXAMPLE |   |     |       |       |     |     |
|---------|---|-----|-------|-------|-----|-----|
| WRONG   | 1 | (A) | (B) ✓ | (C)   | (D) | (E) |
| WRONG   | 2 | (A) | (B)   | (C) ✗ | (D) | (E) |
| WRONG   | 3 | ●   | (B)   | (C)   | ●   | (E) |
| RIGHT   | 4 | (A) | ●     | (C)   | (D) | (E) |

| INSTRUCTIONS   |   |
|--|---|
|  |   |
| ★  | MAKE HEAVY BLOCK MARKS TO FILL THE CIRCLE COMPLETELY.                         |
| ★  | ERASE CLEARLY ANY ANSWER YOU WISH TO CHANGE.                                  |
| ★  | MAKE NO STRAY MARKS ON THIS SHEET.  |
| ★  | THE ENTRIES IN THIS BOX NOS. 1,2,3,4,5,6&7 MUST BE MADE USING HB PENCIL ONLY. |

| CERTIFICATION FROM INVIGILATOR   |  |
|--|--|
| Certified that entries in the Box Nos. 1,2,3,4,5,6 & 7 are checked and found correct |  |
| Signature of the invigilator with date.  |  |

**1. ROLL NO. BEGIN HERE**

|   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 1 | 0 |   |   |   |   |   |   |   |   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |

**2. SUBJECT / DISCIPLINE CODE**

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |   |   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

**3. BOOKLET NO. BEGIN HERE**

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 9 | 5 |   |   |   |   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 |

**4. BOOKLET SERIES**

|   |
|---|
| C |
| A |
| B |
| ● |
| E |
| D |

**5. REGISTRATION NO. BEGIN HERE**

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

**NAME OF CANDIDATE**  
(LEAVE A COLUMN BLANK BETWEEN FIRST, MIDDLE AND LAST NAME)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R | A | H | U | L |   | K | H | A | N | N | A |   |   |   |   |   |   |   |   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**7. CATEGORY**

|         |                       |              |                       |
|---------|-----------------------|--------------|-----------------------|
| GENERAL | <input type="radio"/> | OBC          | <input type="radio"/> |
| SC      | <input type="radio"/> | DEPARTMENTAL | <input type="radio"/> |
| ST      | <input type="radio"/> | OTHERS       | <input type="radio"/> |
| BC      | <input type="radio"/> | EBC          | <input type="radio"/> |

THE ENTRIES IN BOX NO. 8,9 & 10 MAY BE MADE USING BALL POINT PEN.

**8. WRITE SUBJECT / DISCIPLINE**

MCA

**9. WRITE ROLL NO.**

1010

**10. CANDIDATE SIGNATURE & DATE.**



