

Bhabha Atomic Research Center

Recruitment Entrance Test for Assistant 2014

Test Booklet				A
Date	:	October 12, 2014 (Sunday)		
Time	:	1000 Hrs. to 1300 Hrs.		
Parts		Type of questions	No. of questions	Marks
Part 'A'	:	General English (Objective type)	23	3 marks each
	:	General Knowledge (Objective type)	23	3 marks each
	:	Arithmetic (Objective type)	23	3 marks each
	:	Reasoning (Objective type)	13	3 marks each
	:	Computer Literacy (Objective type)	8	3 marks each
Part 'B'	:	Descriptive Questions	3	10 marks each
No of Pages (Other than cover sheet)			15 pages	

Instructions to the candidate

- The question paper is in the form of test booklet. All candidates will be assessed on identic questions.
- A separate **OMR** answer sheet is provided to all candidates for answering Part 'A'.
- A separate answer booklet is provided to all candidates for answering Part 'B' (Descriptive type). **Answer to be written by pen only.**
- Each objective question is provided with a text and/or figures wherever applicable with **multiple answer choices (a), (b), (c) and (d)**. Only one of them is correct.
- Read the instructions on the **OMR** sheet carefully. Use only **HB pencil** for writing/shading on OMR sheet and marking your answers.
- All objective type questions carry equal marks of **THREE** for a correct answer, **ZERO** for no answer and minus **0.5** for a wrong answer.
- Multiple answers** for a question will be regarded as a wrong answer.
- Although the test stresses on accuracy more than speed, it is important for you to use your time as effectively as possible.
- Do not waste time on questions which are too difficult for you. You can go on to other questions and come back to the difficult ones later.
- Question booklets have been marked with **A** or **B** or **C** or **D** or **E** on the right hand top corner, which is mandatory to be written on the OMR sheet in the box and bubble appropriately, failing which, the answer sheet will not be evaluated.
- Space available in the booklet could be used for rough work, if required. No separate sheet will be provided.
- Before signing the attendance sheet, the candidate should write the Booklet Code in the attendance sheet. Candidates should sign against THEIR names only.
- At the end of the test (1) Written Test Call Letter(s) with photograph pasted on it (2) OMR Answer Sheet and (3) Descriptive type answer sheet shall be returned to the Invigilator and shall not be carried by the candidate under any circumstances.

PART - A**GENERAL ENGLISH**

Choose the word, which is most nearly the same meaning for words given in Capital letters:

1. **UBIQUITOUS**
(a) pleasant (b)exhausting (c)present everywhere (d)antique
2. **PANACEA**
(a) cure for all (b)wide spread (c)tangible (d)eternal
3. **ENERVATED**
(a) full of ambition (b)full of strength (c)weak (d)troubled
4. **INNOCUOUS**
(a) harmless (b)insidious (c)insolvent (d)invasion

Choose the word opposite in meaning to the words given in Capital letters:

5. **QUEER**
(a) strange (b)coreless (c)shorten (d)ordinary
6. **MALEVOLENCE**
(a) liking (b)affection (c)kindness (d)generosity
7. **NIMBLE**
(a) ogile (b)quick (c)frank (d)clumsy

Choose the correct word to fill up the blanks from the alternatives:

8. One who has a good taste for food and enjoys it
(a) gourmet (b)curator (c)parasite (d)stoic

9. A general pardon of political offenders
(a) parole (b)amnesty (c)forgiveness (d)clemency
10. One who pretends to be what he is not
(a) imposter (b)magician (c)lair (d)rogue
11. The judge complimented the young witness for standing up to thecross examination.
(a) arduous (b)gruelling (c)lengthy (d)tedious
12. A good dictionary isfor learning English.
(a) invincible (b)indelible (c)incorrigible (d)indispensable

In the following questions, some parts have been jumbled up. Re arrange these parts which are labeled P,Q,R & S to produce the correct sentence.

13. The Chief Minister said (P) the Gorkhaland movement was an (Q) inclusion of Napali language in the 8th schedule (R)ethnic problem and he (S) always favoured the autonomy to these areas and
(a) PRSQ (b)RPQS (c)PQSR (d)RSQP
14. The only time (P)when this dynamic cricketer (Q)was on the 1979 tour of England (R)failed with bat (S) the tag of all-rounder did not fit him
(a) SPRQ (b)PRSQ (c)SRPQ (d)SQRP
15. When (P)it becomes an honor of a life time (Q)in recognition of their great performance (R)illustrious personalities (S) win an award
(a) RPSQ (b)PQRS (c)RSQP (d)QRSP

Choose the correct meaning from the options given for idiomatic expression:

16. To be up and doing
(a) to recover from illness (b) to be actively engaged (c) to progress satisfactorily (d) to be expressive and explicit
17. To cry wolf
(a) to listen eagerly (b) to give false alarm (c) to turn pale (d) to keep off starvation
18. To smell a rat
(a) signs of plague epidemic (b) bad smell (c) suspect foul dealings (d) to be in a bad mood
19. Left no stone unturned
(a) did very irrelevant (b) took no pains (c) used all available means (d) restored to intelligent practices

Each of following questions consists of a word which is spelt in four different ways. Choose the spelling which is correct.

- 20 (a) miscevious (b) mischieveous (c) mischevious (d) mischievous
- 21 (a) sovereignty (b) soveriegnity (c) soveriegnity (d) soveriegnity

Find out which part of the following sentence has an error.

22. He / was not / blind / from birth
(a) (b) (c) (d)
23. Sahana with / her brothers / and sisters / are present there.
(a) (b) (c) (d)

GENERAL KNOWLEDGE

24. Who introduced the system of civil services ?
- (a) Warren Hastings (b) Lord Dalhousie (c) Lord Hardinge (d) William Bentick
25. The two new sports introduced in Barcelona Olympics were
- (a) Tennis and Soft ball (b) Chess and Billiards (c) Badminton and Base ball (d) Synchronized Swimming and Water Polo
26. The only Indian woman who became President of WHO was
- (a) Smt. Vijayalakshmi Pandit (b) Smt. Kamala Devi Chattopadhyaya (c) Dr. Sushila Nayar (d) Raj Kumari Amrit Kaur
27. Name the largest indigenously built warship commissioned in to the Indian Navy by the Prime Minister of India at the Naval Dockyard, Mumbai recently
- (a) INS kolkata (b) INS ganga (c) INS vikrant (d) INS kaveri
28. India is joining hands with which foreign country to get its expertise to help India in implementing 100 'Smart cities' project
- (a) Dubai (b) Singapore (c) Canada (d) Saudi Arabia
29. Who was honoured with the prestigious South African award 'Amadelakupha' by the South African Government in January 2014
- (a) Smt. Sonia Gandhi (b) Ms. Ela Gandhi (c) Smt. Sumitra Mahajan (d) Smt. Sushma Swaraj

30. Name the launch vehicle of Indian Space Research Organization which carried with it French earth observation satellite SPOT-7 along with four other foreign satellites in June 2014.
- (a) PSLV – C24 (b) PSLV – C23 (c) PSLV – C25 (d) PSLV – C22
31. Name the first national security advisor of India
- (a) AK Antony (b) Brajesh Mishra (c) Arun Jaitley (d) KG Balakrishnan
32. Name India's first indigenous Light Combat Aircraft (LCA) developed by DRDO and HAL
- (a) Prithvi (b) Agni (c) Tejas (d) Vayu
33. The 'Indian super League' is related to
- (a) Hockey (b) Badminton (c) Tennis (d) Football
34. Which planet takes maximum time for one revolution ?
- (a) Venus (b) Earth (c) Mars (d) Jupiter
35. Who was the Chairman of 14th Finance Commission ?
- (a) YV Reddy (b) KC Pant (c) C Rangarajan (d) Madhavan Ravindran
36. Devaluation of currency basically helps to promote
- (a) National income (b) Savings (c) Imports at lower cost (d) Exports
37. Mac Mohan Line is the frontier line between
- (a) Pakistan and India (b) Pakistan and Afghanistan (c) India and Bangladesh (d) India and China

38. Telangana becomes 29th State of India on
(a) February 18, 2014 (b) February 20, 2014 (c) May 1, 2014 (d) June 2, 2014
39. Pellagra is caused by
(a) Vitamin B3 (b) Vitamin B12 (c) Vitamin C (d) Vitamin D
40. National Cancer Awareness Day is observed on 7th November every year to commemorate birth anniversary of
(a) Madam Curie (b) Albert Einstein (c) Prof. Partha Dasgupta (d) Dr. Anil Kakodar
41. Author of the book 'Inspiring thoughts'
(a) APJ Abdul Kalam (b) Anita Desai (c) Amartya Sen (d) Amar Singh
42. With which Sport the term 'Caddie' is associated
(a) Polo (b) Bridge (c) Billiards (d) Golf
43. Who amongst the following is the author of the book 'Dreams from My Father' – A Story of Race and Inheritance ?
(a) Nelson Mandela (b) Danny Boyle (c) Barack Obama (d) Bill Clinton
44. Who developed the first TB vaccine ?
(a) Louis Pasteur (b) JF Enders (c) Leon Calmette and Camille Guérin (d) Jonas Salk
45. In India, if 'White Revolution' is associated with Milk, then 'Yellow Revolution' is associated with
(a) Production of Paddy (b) Production of Wheat (c) Production of oil Seeds (d) Production of Sunflower
46. Shanti Swarup Bhatnagar Prize is given for outstanding contributions in the field of
(a) Literature (b) Science (c) Social Service (d) Performing Arts

ARITHMETIC

47. What year comes next in the sequence 1973, 1979, 1987, 1993, 1997, 1999 ...?
(a) 2001 (b) 2003 (c) 2005 (d) 2007
48. I am facing east. I turn 100 degree in the clockwise direction and then 145 degree in the anticlockwise direction. Which direction am I facing now?
(a) East (b) North-east (c) North (d) South-west
49. In a group of persons traveling in a bus, 6 persons can speak Tamil, 15 can speak Hindi and 6 can speak Gujarati. In that group, none can speak any other language. If 2 persons in the group can speak two languages and one person can speak all the three languages, then how many persons are there in the group?
(a) 21 (b) 22 (c) 23 (d) 24
50. The average salary of all the workers in a workshop is Rs.8,000/-. The average salary of 7 technicians is Rs.12,000/- and the average salary of the rest is Rs.6,000/-. The total number of workers in the workshop is
(a) 20 (b) 21 (c) 22 (d) 23
51. Aman gave 40% of the amount he had to Rohan. Rohan in turn gave one-fourth of what he received from Aman to Sahil. After paying Rs.200/- to the taxi driver out of the amount he got from Rohan, Sahil now has Rs.600/- left with him. How much amount did Aman have?
(a) Rs.4,000/- (b) Rs.8,000/- (c) Rs.12,000/- (d) Rs.14,000/-
52. Two numbers are in the ratio 3:5. If 9 is subtracted from each, the new numbers are in the ratio 12:23. The smaller number is:
(a) 11 (b) 22 (c) 33 (d) 55
53. Insert the missing number 5, 10, 13, 26, 29, 58, 61, ...
(a) 122 (b) 64 (c) 125 (d) 128

54. How much will be compound interest to be paid on a principle amount of Rs.53,000/- after 2 years at the rate of 4% per annum?
- (a) Rs.4324.8 (b)Rs.4432.8 (c)Rs.4342.8 (d)Rs.4234.8
55. A is twice as fast as B and B is thrice as fast as C. The journey covered by C in 42 min will be covered by A in
- (a) 7 min (b)28 min (c)63 min (d)14 min
56. What is the sum of two consecutive even numbers when the difference of their square is 84?
- (a) 30 (b)39 (c)42 (d)48
57. In how many different ways can the letters 'SIMPLE' be arranged?
- (a) 520 (b)120 (c)5040 (d)720
58. Traffic light at one particular crossing changes after every 40 seconds. The traffic light at the next crossing changes after every 32 seconds. At a certain time they change together. After what time will they again change together?
- (a) 64 seconds (b)160 seconds (c)80 seconds (d)8 seconds
59. A, B and C started a business in which A contributed Rs.30,000/-. Out of the total profit of Rs.7,200/- A got Rs.1,920/- and C got Rs.2,880/-, find the capital invested by B?
- (a) Rs.9,000/- (b)Rs.15,000/- (c)Rs.12,000/- (d)Rs.10,000/-
60. By selling an electric pump at a cost for Rs.4,800/-, a farmer loses one-quarter of what it cost him. What was the cost price?
- (a) Rs.6,400/- (b)Rs.1,200/- (c)Rs.6,000/- (d)Rs.8,400/-

61. A and B together can do a piece of work in 6 days and A alone can do it in 9 days. In how many days can B alone do it?
- (a) 8 days (b) 9 days (c) 15 days (d) 18 days
62. The average age of three persons is 45 years, their ages are in the ratio of 2:3:4. The difference between the ages of the youngest and eldest of them is
- (a) 15 years (b) 20 years (c) 30 years (d) 45 years
63. Which of the following is equal to the product of 45×25 ?
- (a) $40 \times 20 + 5 \times 5$ (b) $45 \times 20 + 5 \times 5$ (c) $40 \times 25 + 5 \times 5 + 5 \times 5$ (d) $40 \times 25 + 25 \times 5$
64. What is the sum of all odd numbers between 1 and 32?
- (a) 256 (b) 128 (c) 25 (d) 16
65. A train has 26 compartments. Some compartments having seating capacity of 40 passengers and others 45 passengers. If the train carried 1080 persons, how many compartments are there of each kind?
- | | | | |
|--|--|--|--|
| (a) 6 compartments of 30 persons & 10 compartments of 20 persons | (b) 8 compartments of 45 persons & 18 compartments of 40 persons | (c) 5 compartments of 30 persons & 12 compartments of 10 persons | (d) 7 compartments of 40 persons & 11 compartments of 35 persons |
|--|--|--|--|
66. $(999)^2 + 2(999) + 1 = ?$
- (a) 1000 (b) 100 (c) 998 (d) 1000000
67. In climbing a greased pole 15m high, a monkey ascends 5m and slips down 3m in alternate minutes. To get to the top of the pole the monkey would take
- (a) 10 min (b) $7 \frac{1}{2}$ min (c) 15 min (d) 11 min

68. 2 taps can fill a tank in 8 hrs and 6 hrs respectively. A third tap can empty it in 12 hrs. How long will it take to fill the tank if all 3 taps are opened together?
- (a) 6 hrs (b) 5 hrs (c) 4.8 hrs (d) 7 hrs
69. What least number should be subtracted from 9068 to make it a perfect square?
- (a) 148 (b) 51 (c) 189 (d) 43

REASONING

70. If '+' means division, '-' means multiplication, 'x' means minus, '÷' means plus then
- (a) 112 (b) 70 (c) -392 (d) 58
71. Three of the following four are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- (a) 187 (b) 329 (c) 289 (d) 298
72. How many meaningful English words can be formed with the letters "ACRS" using each letter only once in each word?
- (a) One (b) Three (c) Two (d) Four
73. Blueberries cost more than strawberries.
Blueberries cost less than raspberries.
Raspberries cost more than both strawberries and blueberries.
If the first two statements are true, the third statement is
- (a) True (b) False (c) Uncertain (d) Data Inadequate
74. Arrange the words given below in a meaningful sequence.
1. Presentation 2. Recommendation 3. Arrival 4. Discussion 5. Introduction
- (a) 5,3,4,1,2 (b) 3,5,4,2,1 (c) 3,5,1,4,2 (d) 5,3,1,2,4

75. Find out the alternative which will replace the question mark
REASON : SFBTPO :: THINK : ?
(a) SGHMJ (b) UIJOL (c) UHNKI (d) UJKPM
76. Sneha correctly remembers that Kiran's birthday was after Tuesday but before Friday. Raman correctly remembers that Kiran's birthday was after Wednesday but before Sunday. On which day of the week does Kiran's birthday definitely fall?
(a) Monday (b) Thursday (c) Friday (d) Saturday
77. i) Apartments in the Riverdale Manor cost less than apartments in The Gaslight Commons.
ii) Apartments in the Livingston Gate cost more than apartments in The Gaslight Commons.
iii) Of the three apartment buildings, the Livingston Gate costs the most.
If the first two statements are true, the third statement is
(a) True (b) False (c) Uncertain (d) Data Inadequate
78. In a certain code PLAY is written as TPEC. How would GAME be written in that code?
(a) KEQA (b) KIQE (c) KAQI (d) KEQI
79. Five persons are sitting in a row. Tarak is to the right of John. Murali is to the left of John but to the right of Lalit. If Tarak is to the left of Khurshid who is at the extreme left?
(a) John (b) Tarak (c) Lalit (d) Khurshid
80. In a certain language, GARDENER is coded as FBQEDODS, then what will be code for DRAMATIST?
(a) CSNZZTHUS (b) CSZNUHTS (c) ZCSNUTHZ (d) ZSCNUTHZ
81. In a row of boys, Rajan is 10th from the right and Suraj is 10th from the left. When Rajan and Suraj interchange their positions, Suraj will be 27th from the left. Which of the following will be Rajan's position from the right?
(a) 10th (b) 26th (c) 29th (d) 27th

82. If in each number, first and the last digit are interchanged, which one of the following will be the third highest number?
(a) 972 (b) 682 (c) 189 (d) 298

COMPUTER LITERACY

83. The two broad categories of software are
(a) word processing and spreadsheet (b) transaction and application (c) windows and mac os (d) system and application
84. An email account includes a storage area often called
(a) Attachment (b) Hyperlink (c) Mailbox (d) IP address
85. What is the biggest number you can get with 8 bits
(a) 256 (b) 128 (c) 1000 (d) 1024
86. Which keys are used to switch between applications on the desktop?
(a) ALT, CTRL (b) ALT, TAB (c) ESC, CTRL (d) SHIFT, ALT
87. UNIVAC is
(a) Universal Automatic Computer (b) Universal Array Computer (c) Compactable Disk Read Only Memory (d) Compact Disk Read Only Memory
88. The capacity of 3.5 inch floppy disk is
(a) 1.40 MB (b) 1.44 GB (c) 1.40 GB (d) 1.44 MB
89. What is the name of first super computer of India
(a) Saga 220 (b) PARAM 8000 (c) ENIAC (d) PARAM 6000
90. Which of the following is required to create an HTML document?
(a) Browser (b) Internet (c) Text Editor (d) Search Engine

END OF PART A

PART - B

I Write an Essay on any ONE of the following (about 400 words):

1. Disaster Management System in India
2. Creation of smaller states and the consequent administrative, economic and development implications.
3. The Golden Age is before us not behind us.

II Read the following passage carefully and answer the question below.

However, despite the beliefs of these 17-21 million people, there is no evidence that accidents are more likely to happen on Friday the 13th. On the contrary, some studies have shown there are actually fewer accidents on Friday the 13th. A recent report completed by a Dutch insurance company showed that there were fewer incidents of fires and theft on Fridays that fell on the 13th than on any other Fridays in the same year. It is highly probable that this reduction in accidents owes itself to the fear of Friday the 13th itself. If people are more cautious on Friday the 13th, then there are likely to be fewer accidents. If, then, there is no significant evidence that Friday the 13th is any more dangerous than any other day of the year, why do friggatriskaidekaphobics remain convinced of its unluckiness? While the historical or folk traditions discussed earlier may have something to do with this belief, people may also use associational links to justify their superstitions.

If a friggatriskaidekaphobic loses his wallet on Tuesday the 21st, for example, he would probably not assign any meaning to the date on which this event occurred. If the same individual lost his wallet on Friday the 13th, however, he might be likely to conclude that the inauspicious nature of Friday the 13th was at fault.

Questions

1) This passage is most likely an excerpt from

- (a) the case study of a patient suffering from friggatriskaidekaphobia
- (b) the introduction to an article about friggatriskaidekaphobia
- (c) the introduction to a study about the likelihood of accidents occurring on Friday the 13th
- (d) a longer work proving that superstitions are justified by real-world events
- (e) the conclusion of a longer work that analyzes evidence about the superstition of Friday the 13th

2) Based on information in the passage, it can be inferred that an earlier section of this passage likely

- I. featured a personal anecdote about why the author no longer believes that Friday the 13th is Unlucky
- II. provided some explanations about why people might fear Friday the 13th
- III. introduced the term "friggatriskaidekaphobia"

- (a) I only (b) II only (c) I and II only (d) II and III only (e) I, II, and III

3) Which of the following pieces of evidence, if true, would best support the author's argument in paragraph 1?

- (a) In ancient Egypt, the number 13 was actually considered lucky by the pharaohs.
- (b) Major airlines report that there is no significant drop in the number of passengers who fly on Friday the 13th
- (c) Studies performed in the United Kingdom reveal that significantly fewer people choose to drive their cars to work on Friday the 13th
- (d) More traffic accidents occur on Fridays than on any other day of the week.
- (e) 50% fewer marriages occur on Friday the 13th than on other Fridays occurring in the same year.

4) According to the example presented in paragraph 2, which of the following logical fallacies is committed by the man who loses his wallet and blames Friday the 13th?

(a) Post hoc, characterized by the argument in which two sequential events are said to be causally related, but this is not actually the case; the arguer wrongly concludes that the earlier event cause the later. That is, correlation isn't the same thing as causation.

(b) Appeal to probability, characterized by the assumption that because an event could happen, it is inevitable that it will happen.

(c) Appeal to ignorance, characterized by the supposition that, due to a lack of conclusive evidence, the conclusion of an argument should be accepted.

(d) Hasty generalization, characterized by making assumptions about a whole group or range of cases based on a sample that is inadequate (usually because it is atypical or too small).

(e) Weak analogy, characterized by an argument that relies on an analogy between two or more objects, ideas, or situations which aren't really alike in the relevant respects.

5) As used in paragraph 2, which is the best antonym for inauspicious?

(a) predictable (b) pleasant (c) fortunate (d) successful (e) honest

III Write a letter on any one of the following:

Write a letter to the Editor of a leading national daily newspaper, giving your views on inappropriate pictures and photographs published in newspaper and magazines these days.

OR

Write a letter to the Editor of a newspaper about the abnormal raise in the cost of living.