

Booklet No.

85122446

JECA—2018

Subject : APTITUDE

Time : 1 Hour

Full Marks : 50

Instructions

1. All questions are of objective type having four answer options for each. Only one option is correct. Correct answer will carry full mark 1. In case of incorrect answer or any combination of more than one answer, $\frac{1}{4}$ mark will be deducted.
2. Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C or D.
3. Use only Black/Blue ball point pen to mark the answer by complete filling up of the respective bubbles.
4. Do not make any stray mark on the OMR.
5. Write question booklet number and your roll number carefully in the specified locations of the OMR. Also fill appropriate bubbles.
6. Write your name (in block letter), name of the examination centre and put your full signature in appropriate boxes in the OMR.
7. The OMRs will be processed by electronic means. Hence it is liable to become invalid if there is any mistake in the question booklet number or roll number entered or if there is any mistake in filling corresponding bubbles. Also it may become invalid if there is any discrepancy in the name of the candidate, name of the examination centre or signature of the candidate vis-a-vis what is given in the candidate's admit card. The OMR may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
8. Candidates are not allowed to carry any written or printed material, calculator, docu-pen, log table, any communication device like mobile phones etc. inside the examination hall. Any candidate found with such items will be reported against and his/her candidature will be summarily cancelled.
9. Rough Work must be done on the question paper itself. Additional blank pages are given in the question paper for Rough Work.
10. Hand over the OMR to the invigilator before leaving the Examination Hall.

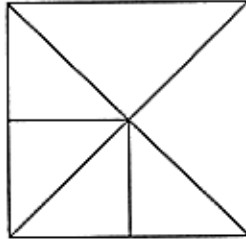
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SPACE FOR ROUGH WORK

1. In a code language 35796 is written as 44887. Find the code for 46823.
- (A) 55914 (B) 57194 (C) 55934 (D) 55745
2. A bag contains 1-rupee, 50-paisa and 25-paisa coins in the ratio 5 : 6 : 7. If the total amount is Rs. 780, find the number of 1-rupee, 50-paisa and 25-paisa coins.
- (A) 200, 240, 280 (B) 400, 480, 560
- (C) 400, 380, 560 (D) 400, 440, 520
3. A city has a population of 3,00,000 out of which 1,80,000 are males. 50% of the population is literate. If 70% of the males are literate, the number of literate females is
- (A) 20,000 (B) 24,000 (C) 30,000 (D) 34,000
4. The cost price of an article is Rs. 100. To gain 50% after allowing a 50% discount, the market price of the article is
- (A) Rs. 200 (B) Rs. 400 (C) Rs. 350 (D) Rs. 300
5. If RUNNER is coded by SUMMER, the code for WINTER will be
- (A) XIMSER (B) VINTER (C) SINVER (D) VIOUER
6. A man borrows Rs. 1,200 from a bank for a period of 3 months. He finds that he has to repay Rs. 1,236. The bank rate of yearly interest is
- (A) 3% (B) 6% (C) 12% (D) 24%
7. Forty-three persons went to a canteen which sold cold drink 'Maaza' and 'Pepsi'. If 18 persons took Maaza only, 8 took Pepsi only and 5 took nothing, find how many took both the drinks.
- (A) 35 (B) 21 (C) 12 (D) 26

8. How many triangles are there in the given figure?



- (A) 10 (B) 16 (C) 12 (D) 8

9. Unscramble the letters of words and find odd one out.

- (A) TLAES (B) KOBO (C) PPREA (D) NCEPLI

10. If $2x + 3y = 10$ and $y < 4$, then

- (A) $x > -1$ (B) $x < -1$ (C) $x > 0$ (D) $x < 0$

11. If $X \phi Y$ means X is the wife of Y , $X \$ Y$ means X is the son of Y and $X \psi Y$ means X is the sister of Y , which of the following would mean that A is the daughter of B ?

- (A) $A \$ C \psi D \phi B$ (B) $A \phi C \$ D \psi B$ (C) $A \psi C \phi D \$ B$ (D) $A \psi C \$ D \phi B$

12. The clinic of a Doctor faces the West. From the backside of his clinic, he walks straight 100 metres then turns to the left and walks 100 metres again. Finally, he turns towards right and stops after walking 50 metres. Now in which direction is Doctor from the starting point?

- (A) South-West (B) North-East (C) South-East (D) North-West

13. Find the wrong number in the following series :

1, 2, 4, 7, 13, 24, 54, 81

- (A) 13 (B) 24 (C) 54 (D) 81

14. A letter series is given below. Some of the letters of this series which are given in the same order in one of the alternative are missing. Find out that alternative.

_m l _ l n l _ m n m _ m l n _

- (A) l n m m l (B) m l m n n (C) m n n l m (D) n m n l l

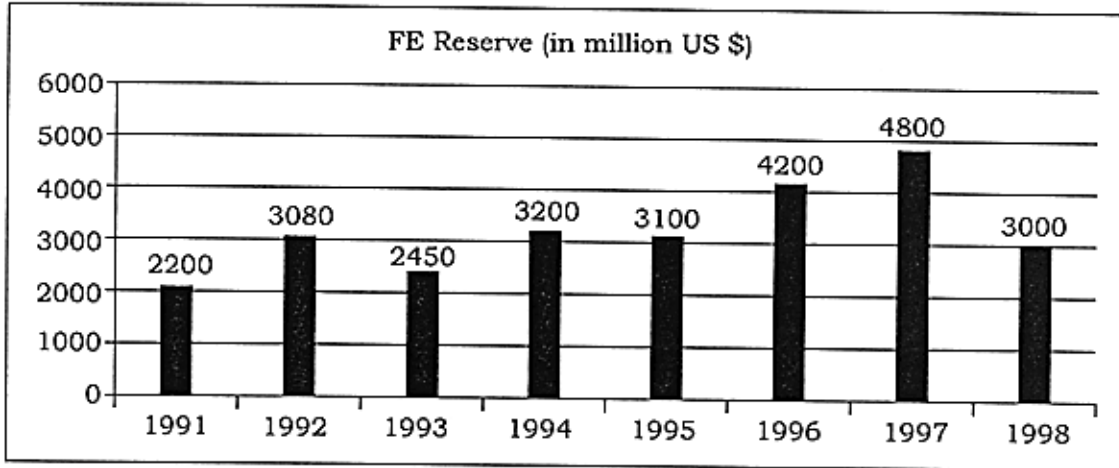
15. JDME : AGBL :: FENA : ?

- (A) AFEP (B) EJDO (C) BHCM (D) DICN

16. 9% of 50 + 8% of 24 - ? = 5.4

- (A) 18.3 (B) 1.83 (C) 1.02 (D) 10.2

17. Study the following graph showing the yearly foreign exchange reserves of a country :



The foreign exchange reserve in 1997 was how many times that in 1994?

- (A) 1.5 (B) 2 (C) 3.5 (D) 2.6

18. With reference to the figure in question no. 17, for which year, the percent increase of foreign exchange reserves over the previous year is the highest?

- (A) 1994 (B) 1995 (C) 1998 (D) 1992

19. Ignorance : Education :: Disease : ?

- (A) Medicine (B) Doctor (C) Nurse (D) Hospital

20. Which one of the following is the correct option in place of the question mark?
AOP, CQR, EST, GUV, ?

- (A) IYZ (B) HWX (C) IWX (D) JWX

21. 36, 34, 30, 28, 24, What number should come next?

- (A) 20 (B) 22 (C) 23 (D) 26

22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

“bca _ b _ aabc _ a _ caa”

- (A) acab (B) bcbb (C) cbab (D) ccab

23. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

“_ op _ mo _ n _ _ pnmop _”

- (A) mnpmon (B) mpnmop (C) mnompn (D) mnpomn

24. A told B, “The girl I met yesterday was the youngest daughter of the brother-in-law of my friend’s mother.” How is the girl related to A’s friend?

- (A) Niece (B) Cousin (C) Friend (D) Daughter

25. Marathon is to race as hibernation is to

- (A) winter (B) bear (C) dream (D) sleep

26. A man pointing to a photograph says, “The lady in the photograph is my nephew’s maternal grandmother.” How is the lady in the photograph related to the man’s sister who has no other sister?

- (A) Mother-in-law (B) Cousin (C) Sister-in-law (D) Mother

27. Six members of a family A, B, C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are married couple. E is the brother of C. D is the daughter of A. F is the brother of B. How many male members are there in the family?

- (A) 4 (B) 3 (C) 2 (D) 1

28. Find the odd one among the following :
- (A) 17 (B) 37 (C) 27 (D) 47
29. Find the odd one among the following :
- (A) SORE (B) SOTLU (C) NORGAE (D) MEJNIAS
30. *A*'s mother's father is the husband of *B*'s mother. How is *A* related to *B*, if *A* and *B* are both male?
- (A) Uncle (B) Father (C) Nephew (D) Son
31. How is David' father's only daughter-in-law's son's wife related to David?
- (A) Daughter (B) Daughter-in-law (C) Niece (D) Granddaughter
32. In a class of 165 students, 45 students are passed in Mathematics as well as in English, whereas 60 students are failed in Mathematics and 65 students are failed in English. How many students are passed in exactly one subject?
- (A) 160 (B) 100 (C) 115 (D) 165
33. With reference to the problem given in Question No. 32, How many students are failed in both the subjects?
- (A) 25 (B) 20 (C) 45 (D) 5
34. With reference to the problem given in Question No. 32, How many students are failed only in math?
- (A) 55 (B) 60 (C) 65 (D) 70
35. The unit digit in the product $(624 \times 708 \times 913 \times 463)$ is
- (A) 2 (B) 5 (C) 6 (D) 8
36. Given that $\sqrt{12} = 3.464$ and $\sqrt{120} = 10.95$, find the value of $\sqrt{1.2} + \sqrt{1200} + \sqrt{0.012}$.
- (A) 32.164 (B) 35.844 (C) 36.164 (D) 37.304

37. Two-third of a positive number and $16/216$ of its reciprocal are equal. Find the positive number.
- (A) $9/25$ (B) $14/4$ (C) $4/12$ (D) $144/25$
38. $(1000)^6 / 10^{15} = ?$
- (A) 10 (B) 100 (C) 1000 (D) 10000
39. The average weight of three boys P, Q and R is 54 kg, while the average weight of three boys Q, S and T is 60 kg. What is the average weight of P, Q, R, S and T ?
- (A) 66.4 kg (B) 63.2 kg (C) 58.8 kg (D) Data inadequate
40. In Daya's bag there are 3 books of History, 4 books of Science and 2 books of Maths. In how many ways can Daya arrange the books so that all the books of same subject are together?
- (A) 9 (B) 6 (C) 8640 (D) 1728
41. A sells a car to B at 10% loss. If B sells it for Rs. 54,000 and gains 20%, the cost price of the car for A was
- (A) Rs. 25,000 (B) Rs. 50,000 (C) Rs. 37,500 (D) Rs. 60,000
42. If the sum of two numbers is 31 and their product is 240, then find the absolute difference between the numbers.
- (A) 1 (B) 3 (C) 4 (D) 5
43. $(32)^2 - (20)^2 = 52a$, then find the value of a .
- (A) 13 (B) 14 (C) 12 (D) 11
44. $13.05 \times 4.5 + 0.5 = ?$
- (A) 1170.5 (B) 117.05 (C) 117.45 (D) 11.745
45. A contractor employs a worker for 60 days at the rate of Rs. 20 per day. If the worker is absent on any day, he does not get any pay and also has to pay a penalty of Rs 10. The worker gets Rs. 300 at the end of the term. Find for how many days the worker was absent.
- (A) 28 (B) 30 (C) 34 (D) 40

46. Statement :

The World Bank estimates that India is one of the highest-ranking countries in the world for the number of children suffering from malnutrition.

Action :

- I. Government, People and various NGOs should come together and try to eradicate the problem.
- II. Government should take financial help from foreign countries to eradicate this problem.

- (A) Only I follows (B) Only II follows
(C) Either I or II follows (D) Neither I nor II follows

47. Statement :

According to a survey, the current water reservoir will deplete by 50% by 2050.

Action :

- I. Government of all the countries should appeal to all the citizens to use water carefully and avoid wastage.
- II. Scientists should start finding an alternative solution to water.

- (A) Only I follows (B) Only II follows
(C) Either I or II follows (D) Neither I nor II follows

48. Statement :

An advertisement of a company XYZ—"If you are a software engineer we want to hire you".

Conclusion :

- I. Company hires no person with other qualification.
- II. Company XYZ is in need of software engineers.

- (A) Only conclusion I follows (B) Only conclusion II follows
(C) Either conclusion I or II follows (D) Neither conclusion I nor II follows

49. If SNOW is coded as 7100, then WALL will be coded as

- (A) 5000 (B) 4700 (C) 4800 (D) 4000

50. Bowl : Soup :: Plate : ?

- (A) Spoon (B) Coffee (C) Rice (D) Dish

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