SET - C

P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Semester End Examination; July / Aug. - 2022

Aptitude and Reasoning Development - Advanced (ARDA)

(Common to all Branches)

Time: 2 hr.   Max. Marks: 50

Instructions:

Questions 1 – 25 carry Two marks each; Put a (✓) mark against correct option in the answer sheet.

Neither a Borrower Nor a Lender Be

Both borrowers and lenders in the sub-prime mortgage market are wishing they had listened to the old saying: neither a borrower nor a lender be.

Last year people with poor credit ratings borrowed $605 billion in mortgages, a figure that is about 20% of the home-loan market. It includes people who cannot afford to meet the mortgage payments on expensive homes they have bought, and low-income buyers. In some cases, the latter could not even meet the first payment. Lenders include banks like HSBC, which may have lost almost $7 billion.

Both sides can be blamed. Lenders, after the 2-3 percentage point premium they could charge, offered loans, known as 'liar loans', with no down payments and without any income verification to people with bad credit histories. They believed that rising house prices would cover them in the event of default. Borrowers ignored the fact that interest rates would rise after an initial period.

One result is that default rates on these sub-prime mortgages reached 14% last year- a record. The problems in this market also threaten to spread to the rest of the mortgage market, which would reduce the flow of credit available to the shrinking numbers of consumers still interested in buying property.

So, the housing market will remain weak; borrowers with weak credit histories will find the credit window closed; people with adjustable-rate mortgages will have to spend less so they can meet their increased payments; tighter lending standards and falling home prices will reduce consumers' ability to tap the equity in their homes.

But as long as the labor market remains strong, which it has done despite job losses in housing-related industries, and as long as real incomes continue to go up, consumers might complain, but they are unlikely to go on a buyers' strike on a scale that will make this slowdown become a recession. Therefore, we should not be too worried, but, at the same time, we should be a bit cautious and watch closely how things develop.

1. Sub-prime mortgage loans were offered
   a) only to low-income families.
   b) to people who wanted to by very expensive houses.
   c) to people with poor credit histories.

2. Who believed that rising house prices would cover them in the event of a default?
   a) Borrowers   b) Lenders   c) Both

3. Borrowers have been caught out
   a) Because they lied when applying for the loan.
   b) Because house prices have risen.
   c) Because interest rates rise after a while.

4. According to the text, people with adjustable-rate mortgages
   a) Will not be able to get credit.
   b) Will have to economies.
   c) Have weak credit histories.

5. The housing market problems
   a) could easily tip the country in recession.
   b) are unlikely to tip the country into recession.
   c) will cause a buyers' strike.

6. In how many ways can five boys and three girls sit in a row such that all boys sit together?
   a) 4800   b) 5760   c) 2880   d) 15000   e) 1440

7. A delegation of 5 members has to be formed from 3 ladies and 5 gentlemen. In how many ways the delegation can be formed, if 2 particular ladies are always included in the delegation?
   a) 20   b) 54   c) 42   d) 60   e) 40

8. A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is:
   a) 250   b) 276   c) 280   d) 285

9. A pupil's marks were wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by half (1/2). The number of pupils in the class is:
   a) 10   b) 20   c) 40   d) 73

10. A trader has 60 kg of pulses, one part of which is sold at 8% profit and the rest is sold at 14% profit. He gains 12% on whole. What is the quantity sold at 14% profit?
    a) 20kg   b) 30kg   c) 40kg   d) 50kg

11. In an AP twenty fifth term is 70 more than to fifteenth term. Find the common differences.
    a) 6   b) 8   c) 7   d) 4.5

12. The number of multiples of 4 between 10 and 250 is:
    a) 50   b) 40   c) 60   d) 30

13. Which term of the following sequence is 64 ?
    a) 12   b) 10   c) 11   d) 8

14. What is the 50th term of the sequence $\sqrt{3}$, 3, $3\sqrt{3}$, 9, ...
    a) $(\sqrt{3})49$ b) $(\sqrt{3})50$ c) 349   d) 350

15. If CHINA can be coded as BFFJV. How would you code INDIA?
    a) HMJXV   b) HLAEV   c) HJMTV   d) HLEVA

16. If 'Stress' is coded as Rtress, then 'Pulse' will be coded as –
    a) Ulse   b) Rulse   c) Qulse   d) Oulse

17. If E A T + T H A T = A P P L E, what is the value of A + T +L?
    a) 12   b) 13   c) 14   d) 15

18. SEND + MORE = MONEY, What is the value of M + O + N + E + Y?
    a) 12   b) 13   c) 14   d) 15

Data interpretation

The bar graph shows the production (in thousand tonnes) of Wheat, Rice and Maize in different states.
The pie-chart shows the percentage of agricultural land in the given six states.
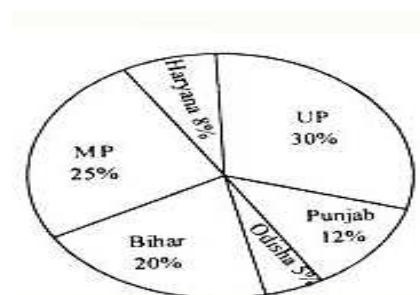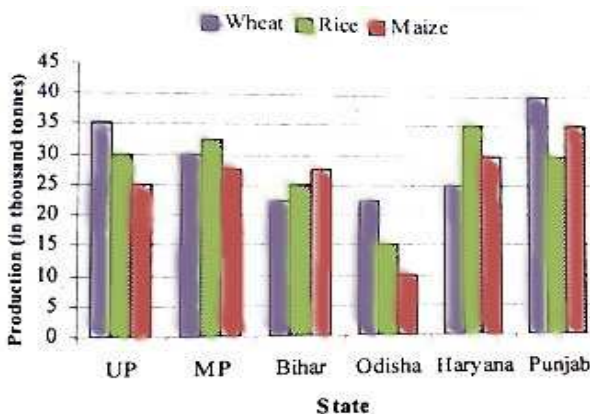
Productivity = total production/ area of agricultural land

19. The productivity of which state is the maximum?
    a) Bihar   b) Haryana   c) Punjab   d) UP   e) MP
20. The production of which state is the maximum?
    a) Bihar   b) MP   c) Haryana   d) UP   e) Punjab
21 The production of wheat in Punjab is what per cent more than the production of Maize in Odisha?
    a) 350%   b) 250%   c) 300%   d) 200%   e) 400%
22. What is the ratio of the production of Rice in Bihar to the production of Wheat in Haryana?
    a) 2:3   b) 3:2   c) 2:1   d) 1:1   e) 1:2
23. If MP exports 40% of Rice at the rate of Rs.30 per kg and UP exports 30% of Rice at the rate of Rs.32 per kg, then what is the ratio of the income from the exports?
    a) 65:48   b) 31:42   c) 43:54   d) 57:62   e) 1:2
24. If sixth and eleventh terms of an H.P. are 1/11 and 1/19, respectively. What will be the first term of the H.P.?
    a) 1   b) ½   c) 1/3   d) ¼
25. If the (n+1) term of a harmonic progression is twice the (3n+1)th term, find the ratio of the first term to (n+1)h term.
    a) 2:1   b) 1:2   c) 2:3   d) 3:2

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