Quiz Date: 23rd May 2020

Directions (1-5): Study the given graph Carefully and answer the following questions. The pie chart given below shows the no. of candidates appeared in different exams in a given year. The line graph shows the percentage of passed candidates in that exam.



Q1. Candidates failed in IES exam are what approximate percent of the candidates passed in SSC and CTET exams together?

- (a) 45%
- (b) 60%
- (c) 75%
- (d) 65%
- (e) 70%

Q2. Passed candidate in Gate exam are how much more or less than appeared candidates of SSC Exam?

- (a) 55200
- (b) 62500
- (c) 52500
- (d) 56500
- (e) 48500

Q3. If candidates who got selected from each exam (GATE, SSC, CTET, IES, IAS) are 50%, 60%, 40%, 30%, 40% respectively, then find total candidates who passed but don't get selected.

- (a) 44375
- (b) 39360
- (c) 49062
- (d) 33189
- (e) 40260



candidates of GATE and IAS exam together.

- (a) $\frac{345}{539}$
- (b) $\frac{\frac{339}{325}}{\frac{348}{348}}$
- (c)
- 625 625 (d)
- 348
- (e) $\frac{365}{646}$

Q5. Passed candidates of SSC exam are what approximate percent more or less than failed candidates of CTET exam?

- (a) 72%
- (b) 80%
- (c) 84%
- (d) 76%
- (e) 68%

Directions (6-9): Bar graph shows the number of fans produced (in hundreds) by a manufacturer in the period of four months i.e. from January to April.



Shopkeeper has to decide whether to test or not all the units of fans before sending them to the customer. If he has decided to test he has two options.

(a) Option I

(b) Option II

Option I : - It cost Rs 2.50 per unit as testing cost but this method of testing allows 30% of defective fans to pass to the customer.

Option II : - It cost Rs 4 per unit as testing cost and it find 90% of defective units \rightarrow All defective units identified at the customer end, will causes a penalty of Rs 60 per units. Which are to be paid by shopkeeper. Defective units found during testing are repaired at Rs 20 per unit.

Q6. Shopkeeper uses option I testing in March month and incurs repairing cost of. Rs 5600. Then find number of defective fans in March is what percent of total manufactured fans in that month?

- (a) $12\frac{1}{2}\%$
- (b) 15%
- (c) $16\frac{2}{3}\%$
- (d) $17\frac{1}{2}\%$
- (e) 20[°]/₂

Q7. For February month, find the difference of the extra (i.e. total of testing ,repairing cost and penalties) incurred by the shopkeeper. For the both options if 150 units are defective in that months.

- (a) Rs 1000 (b) Rs 1200
- (c) Rs 1250

(d) Rs 1400 (e) Rs 1350

Q8. Find ratio of all defective units of January to April months if in January he uses option I for testing and in April, option II as testing. Repairing cost of April is Rs 5300 more than that of January where as penalties for January is Rs 900 more than that of April (a) 3 : 8

- (b) 2 : 5
- (c) 11 : 18
- (d) 4 : 9
- (e) 8 : 15

Q9. In May, shopkeeper uses option II for testing the whole units of fans produced and he has to pay penalties of Rs 1620 to the customer. Then, find the total units of fans manufactured in that month if total defective units are $25\frac{5}{7}\%$ in that month.

- (a) 980 (b) 1050
- (c) 1071



Directions (10-15): What approximate value should come in place of question mark (?) in the following questions? (Note: You are not expected to calculate the exact value)

Q10. $5\frac{1}{5}$ of 195.95 + $6\frac{1}{4}$ of 2309.49 =?% of (4991.92) + 732.85 + 14434.86 (a) 4 (b) 9 (c) 17 (d) 27 (e) 29 Q11. 9228.789 - 5021.832 + 1496.989 = ? (a) 6500 (b) 6000 (c) 6300

(d) 5700 (e) 5100 Q12. 29.8% of 260 + 60.01 % of 510 - 103.57 = ? (a) 450 (b) 320 (c) 210 (d) 280 (e) 350 Q13. $\{(4444 + 333 + 22 + 1) - (2 \times 3 \times 4 \times 5)\} \times 2.532 = ?$ (a) 11720 (b) 11600 (c) 11980 (d) 12500 (e) 11532 Q14. 17% of 760 + 57% of 78.99 + 77.77 =? (a) 238 (b) 242 (c) 248 (d) 252 (e) 256 $Q15. (3.2)^2 + (9.8)^2 + (8.13)^2 + (4.24)^2 =?$ dda a (a) 190 (b) 230 (c) 150 (d) 210 (e) 160

Solutions

S1. Ans (b) Sol. failed candidates in IES exam = $\frac{80}{100} \times 30000 = 24000$ Passed candidates in SSC and CTET exam together = $30000 \times \frac{72}{36} \times \frac{24}{100} + 30000 \times \frac{102}{36} \times \frac{30}{100}$ = 14400 + 25500 = 39900So, required % = $\frac{24000}{39900} \times 100 \approx 60\%$ S2. Ans (c) Sol. Required difference = $\frac{72}{36} \times 30000 - \frac{60}{36} \times 30000 \times \frac{15}{100}$ = 60000 - 7500 = 52500

S3. Ans (e)
Sol. passed candidates
GATE
$$= \frac{60}{36} \times 30000 \times \frac{15}{100} = 7500$$

SSC = $30000 \times \frac{72}{36} \times \frac{30}{100} = 25500$
IES = $30000 \times \frac{20}{100} = 6000$
IAS = $30000 \times \frac{30}{20} \times \frac{27}{100} = 18750$
Total candidates passed = $7500 + 14400 + 25500 + 6000 + 18750 = 72150$
Candidates who get selected
= $7500 \times \frac{50}{100} + 14400 \times \frac{60}{100} + 25500 \times \frac{40}{100} + 6000 \times \frac{30}{100} + 18750 \times \frac{40}{100} = 31890$
Required answer = $72150 - 31890 = 40260$
S4. Ans (c)
Sol. Total failed candidates of IES and SSC exam together = $30000 \times \frac{80}{100} + \frac{72}{36} \times 30000 \times \frac{76}{100}$
= $24000 + 45600 = 69600$
Total appeared candidates of GATE and IAS exam together = $\frac{150}{36} \times 30000 = 125000$
So, required ratio = $\frac{69500}{125000} = \frac{348}{4625}$
S5. Ans (d)
Sol. Required percentage = $\frac{102 \times 30000 \times \frac{70}{125000} \times \frac{74}{56} \times 100}{\frac{100}{20} \times 100} \times 100 \approx 76\%$
Solution
Solution
Solution
Solution = $\frac{102}{2000} = \frac{348}{425} \times 100$
Solution = $\frac{100}{200} = 14400 \times 100 \approx 76\%$
Solution

Total number of defective fans in that month $=\frac{280}{70} \times 100 = 400$ Required $\% = \frac{400}{2400} \times 100 = 16\frac{2}{3}\%$

S7. Ans.(b)

Sol. Option I Extra cost = $1600 \times 2.5 + 150 \times \frac{70}{100} \times 20 + \frac{150 \times 30}{100} \times 60$ = Rs (4000 + 2100 + 2700) = Rs 8800**Option II** Extra cost = $1600 \times 4 + 150 \times \frac{90}{100} \times 20 + \frac{150 \times 10}{100} \times 60$ = Rs 10000 Required difference = 1200 S8. Ans.(d) Sol. Let number of all defective units in January and April be x and y respectively. Atq, $y \times \frac{90}{100} \times 20 - \frac{x \times 70}{100} \times 20 = 5300$ \Rightarrow 18y - 14x = 5300 ...(i) And. $\frac{x \times 30}{100} \times 60 - \frac{y \times 10}{100} \times 60 = 900$ \Rightarrow 18x - 6y = 900 ...(ii) From (i) & (ii) X = 200 and y = 450Required ratio $=\frac{200}{450}=4:9$ S9. Ans.(b) Sol. Number of defective items sold to the customer $=\frac{1620}{60}=27$ Number of all defective units in may $=\frac{27}{10} \times 100 = 270$ Total manufactured units $=\frac{270\times7}{180}\times100=1050$ S10. Ans.(a) Sol. ?% of (4991.92) +732.85+ 14434.86= $5\frac{1}{5}$ of 195.75 + $6\frac{3}{8}$ of 2309.49 or, $\frac{2 \times (5000)}{100} \approx \frac{26}{5} \times 195 + \frac{50}{8} \times 2300 - 730 - 14430$ or, ? × 50≈ 1014 +14375 -730 -14430 = 15389 - 15160 = 229 $\therefore ? \approx \frac{229}{50} \approx 4$ S11. Ans.(d) Sol. $9230 - 5022 + 1497 = 5705 \cong 5700$ S12. Ans.(d)

Sol. 30% of 260 + 60% of 510 - 104 = 78 + 306 - 104 = 280S13. Ans.(a) Sol. [4800 - (120)] × 2.5 = 11720 S14. Ans.(d) Sol. (129.2 + 45.03 + 77.77) ≈ 252

S15. Ans.(a) Sol. 10.24 + 96.04 + 66.09 + 17.96 ≈ 190

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