

27.11.19 Comprehensive Revision Programme-2 Marks:40

Std:XI [H, I] AN Accountancy (Part-I) Time: 1.15 Hrs

I. Choose the correct answer: 10x1=10

1. Who is considered to be the internal user of the financial information?
 - a. creditors
 - b. Employee
 - c. Customer
2. The Industrial Development took place in
 - a. 18th century
 - b. 19th century
 - c. 21st century
3. GAAPs are :
 - a. Generally Accepted Accounting principles
 - b. Generally Accepted Accounting policies
 - c. None of these
4. International Financial reporting standard established in
 - a. 1973
 - b. 1947
 - c. 1956
5. A firm has assets of Rs.1,00,000 and the external liabilities of Rs.60,000. Its capital would be
 - a. 1,60,000
 - b. 40,000
 - c. 60,000
6. The word journal has been derived from the fund word "jour". Jour means
 - a. Day
 - b. Money
 - c. Cash
7. J.F means
 - a. Ledger page number
 - b. Journal page number
 - c. order number
8. If the total of the debit side of an a/c exceeds the total of its credit side, it means
 - a. Credit balance
 - b. debit balance
 - c. nil balance
9. Trial balance is prepared
 - a. At the end of the year
 - b. on a particular date
 - c. For a year
10. _____ is prepared on a specific data.
 - a. Trial balance
 - b. Journal
 - c. Ledger

II. Answer the following:

(2 Marks)

11. Who are the parties interested in accounting information?
12. What is "Full Disclosure Principle" accounting? (3 Marks)

III. Answer the following:

3x5=15

13. Prepare accounting equation for the following Transactions.

- a. Raj started business with cash Rs.40,000.
- b. Opened bank a/c with a deposit of Rs.30,000.
- c. Bought goods from Hari on credit for Rs.12,000.
- d. Raj withdrew cash for personal use Rs.1000.
- e. Bought Furniture by using debit card for Rs.10,000.

14. Prepare Kavitha a/c from the following details.

| 2015 June | | Rs. |
|-----------|--|--------|
| 1 | Credit balance of Kavitha's a/c | 8000 |
| 2 | Amount paid to Kavitha | 6000 |
| 18 | Goods purchased from Kavitha on credit | 10,000 |

15. From the following balances extracted from the books of mr.

Gowri Shankar, Prepare Trial balance as on 31.12.2017

| Particulars | Rs. | Particulars | Rs. |
|----------------|--------|--------------------|--------|
| Buildings | 15000 | Conveyance charges | 5600 |
| Bills payable | 5000 | Salary | 3500 |
| Debtors | 15000 | Capital | 30,000 |
| Bank | 16800 | Furniture | 20,000 |
| Insurance | 1600 | Motor car | 5000 |
| Rent received | 5000 | Patents | 2000 |
| Donation given | 2500 | Good will | 8000 |
| Loan | 50,000 | | |

IV. Answer the following:

1x10=10

16. Journalise the following Transactions of Mr. Ravi & post them in the ledger balance.

| 2016 June | | Rs. |
|-----------|---------------------------------|----------|
| 1 | Ravi started business with cash | 5,00,000 |
| 3 | Paid into bank | 80,000 |
| 5 | Purchased building for | 3,00,000 |
| 10 | Sold goods for | 80,000 |
| 15 | With draw cash from bank | 10,000 |
| 30 | Paid salary | 25,000 |

I. Choose the correct answer: 5x1=5

1. The graph between volume and temperature in Charles law is
 a) an ellipse b) a circle c) a straight line d) a parabola
2. An ideal refrigerator has a freezer at temperature -12°C . The coefficient of performance of the engine is 5. The temperature of the air to which the heat ejected is _____.
 a) 50°C b) 45.2°C c) 40.2°C d) 37.5°C
3. The efficiency of a heat engine working between the freezing point and boiling point of water is _____.
 a) 6.25% b) 20% c) 26.8% d) 12.5%
4. In an isochoric process, we have _____.
 a) $W=0$ b) $Q=0$ c) $\Delta U=0$ d) $\Delta T=0$
5. The dimensional formula for heat capacity is _____.
 a) $\text{ML}^2\text{T}^{-2}\text{K}^{-1}$ b) $\text{M}^0\text{L}^0\text{T}^{-1}\text{K}^{-2}$ c) $\text{M}^1\text{L}^2\text{T}^1\text{K}^{-3}$ d) $\text{ML}^2\text{T}^{-3}\text{K}^{-1}$

II. Answer any 5 of the following: 5x2=10

6. What are the limitations of dimensional analysis?
7. How to minimize systematic error?
8. Check the correctness of the equation $\frac{1}{2}mv^2=mgh$ using dimensional analysis method.
9. State Stefan-Boltzmann law.
10. Define one calorie.
11. State Kelvin-Planck statement of second law of thermodynamics.

III. Answer any 5 of the following: 5x3=15

12. Discuss the various modes of heat transfer.
13. Derive the workdone relation in isothermal process.
14. Derive the expression for efficiency of carnot engine.
15. Define: (i) Specific heat capacity
 (ii) Zeroth law of thermodynamics
 (iii) First law of thermodynamics

16. Obtain an expression for the time period 'T' of a simple pendulum. The time period 'T' depends on (i) mass 'm' of the bob (ii) length 'l' of the pendulum (iii) acceleration due to gravity 'g' at the place where the pendulum is suspended ($K=2\pi$).

17. What are the rules for counting significant figures,

IV. Answer the following: 2x5=10

18. Derive Mayer's relation for an ideal gas.

(or)

Explain in detail Newton's law of cooling.

19. a) Explain in detail the thermal expansion.

b) What are the limitations in the first law of thermodynamics?

(or)

Assuming that the frequency γ of a vibrating string may depend upon (i) applied force (F) (ii) length (l) (iii) mass per unit length

(m). Prove that $\gamma \propto \frac{1}{l} \sqrt{\frac{F}{m}}$ using dimensional analysis.

I. Choose the correct answer: 10x1=10

- What must be the matrix X if $2x + \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} = \begin{bmatrix} 3 & 8 \\ 7 & 2 \end{bmatrix}$
 - $\begin{pmatrix} 2 & 6 \\ 4 & -2 \end{pmatrix}$
 - $\begin{pmatrix} 1 & 3 \\ 2 & -1 \end{pmatrix}$
 - $\begin{pmatrix} 2 & 6 \\ 4 & 2 \end{pmatrix}$
 - $\begin{pmatrix} -2 & -6 \\ -4 & -2 \end{pmatrix}$
- If $A = \begin{bmatrix} \lambda & 1 \\ -1 & -\lambda \end{bmatrix}$, then for what value of λ , $A^2 = 0$?
 - 0
 - ± 1
 - 1
 - 1
- The value of x, for which the matrix $A = \begin{bmatrix} e^{x-2} & e^{7+x} \\ e^{2+x} & e^{2x+3} \end{bmatrix}$ is singular is
 - 9
 - 8
 - 7
 - 6
- The value of the determinant of $A = \begin{bmatrix} 0 & a & -b \\ -a & 0 & c \\ b & -c & 0 \end{bmatrix}$ is _____.
 - 2abc
 - abc
 - 0
 - $a^2 + b^2 + c^2$
- If $a \neq b$, b, c satisfy $\begin{vmatrix} a & 2b & 2c \\ 3 & b & c \\ 4 & a & b \end{vmatrix} = 0$ then $abc =$ _____.
 - $a+b+c$
 - 0
 - b^3
 - $ab+bc$
- The rule of $f(x) = x^2$ is a bijection if the domain and the co-domain are given by _____.
 - R, R
 - R, $(0, \infty)$
 - $(0, \infty)$, R
 - $[0, \infty)$, $[0, \infty)$
- Let $X = \{1, 2, 5, 4\}$, $Y = \{a, b, c, d\}$ and $f = \{(1, a) (4, b) (2, c) (3, d) (2, d)\}$ then f is _____.
 - one-one
 - onto
 - not one-one
 - not a function
- The real value of function g defined by $g(x) = \frac{1}{f(x)}$ on suitable domain is _____.
 - reciprocal function
 - odd function
 - even function
 - sigum function

- A function $f: X \rightarrow Y$ is said to be _____ if there exists a function $g: Y \rightarrow X$
 - invertible
 - vertible
 - linear
 - non linear
 - If $f(x) = 2x$, then variable x is called _____.
 - equal function
 - argument
 - vertical
 - zero function
- II. Answer any 3 of the following: 3x2=6
- Find the domain of $f(x) = \frac{1}{1-2\cos x}$
 - If $n(A) = 10$ and $n(A \cap B) = 3$, find $n((A \cap B^c) \cap A)$.
 - Compute (A) using sarrus rule if $A = \begin{bmatrix} 3 & 4 & 1 \\ 2 & 3 & 0 \\ -1 & 6 & 7 \end{bmatrix}$
 - Without expanding, evaluate $\begin{vmatrix} 2 & 3 & 4 \\ 5 & 6 & 8 \\ 6x & 9x & 12x \end{vmatrix}$
- III. Answer any 3 of the following: 3x3=9
- Determine the roots of the equation $\begin{vmatrix} 1 & 4 & 20 \\ 1 & -2 & 5 \\ 1 & 2x & 5x^2 \end{vmatrix} = 0$
 - Show that $\begin{vmatrix} 2bc - a^2 & c^2 & b^2 \\ c^2 & 2ca - b^2 & a^2 \\ b^2 & a^2 & 2ab - c^2 \end{vmatrix} = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix}^2$
 - If $f: R \rightarrow R$ is defined by $f(x) = 3x - 5$ prove that f is a bijection and find its inverse.
 - Let f, $g: R \rightarrow R$ be defined as $f(x) = 2x - |x|$ and $g(x) = 2x + |x|$, find fog.
- IV. Answer any 3 of the following: 5x3=15
- On the set of natural numbers let R be the relation defined by aRb if $a+b \leq 6$. Write down the relation by listing all the pairs. Check whether it is (a) reflexive (b) symmetric (c) transitive (d) equivalence.
 - i) Prove that $((A \cup B^c \cup C) \cap (A \cap B^c \cap C^c)) \cup ((A \cup B \cup C^c) \cap (B^c \cap C^c)) = B^c \cap C^c$
 ii) If A and B are two sets so that $n(B-A) = 2n(A-B) = 4n(A \cap B)$ and if $n(A \cup B) = 14$ then find $n(\rho(A))$.
 - i) If a, b, c are p^{th} , q^{th} and r^{th} term of an A.P, find the value of $\begin{vmatrix} a & b & c \\ p & q & r \\ 1 & 1 & 1 \end{vmatrix}$
 ii) Evaluate $\begin{vmatrix} \cos \theta & \sin \theta \\ -\sin \theta & \cos \theta \end{vmatrix}$
 - Find the value of the product $\begin{vmatrix} \log_3^4 & \log_4^3 \\ \log_3^8 & \log_4^9 \end{vmatrix} \times \begin{vmatrix} \log_2^3 & \log_8^3 \\ \log_3^4 & \log_4^4 \end{vmatrix}$

I. Choose the correct answer: 5x1=5

1. Knitted garment production is concentrated in _____.
a) Tiruppur b) Erode c) Karur
2. Which Union Territory has the highest sex ratio?
a) Chandigarh b) Pondicherry c) Lakshadweep
3. Integration is the reverse process of _____.
a) Amalgamation b) Differentiation c) Mixing
4. Formula for calculating marginal cost
a) $MR = \frac{d(TR)}{dQ}$ b) $MC = \frac{d(TR)}{dQ}$ c) $MC = \frac{d(TC)}{dQ}$
5. Largest area of land is used in the cultivation of _____.
a) Sugarcane b) Paddy c) Coconut

II. Answer any 5 of the following: 5x2=10

6. What is heritage tourism?
7. Define GSDP.
8. What are the nuclear power plants in Tamil Nadu?
9. Find the average cost function where $TC = 60 + 10x + 15x^2$
10. What are the major ports in Tamil Nadu?
11. What is the formula for elasticity of supply if you know the supply function?

III. Answer any 5 of the following: 5x3=15

12. Describe the performance of Tamil Nadu economy in health.
13. Explain GSDP in Tamil Nadu.
14. Solve for x quantity demanded if $16x - 4 = 68 + 7x$.
15. Solve the following linear equations by using Cramer's rule:
 $x_1 - x_2 + x_3 = 2$: $x_1 + x_2 - x_3 = 2 = 0$ $-x_1 - x_2 - x_3 = -6$
16. Explain the prospect for development of tourism.
17. Compare productivity of any two food crops between Tamil Nadu and India.

IV. Answer the following: 2x5=10

18. What are the ideas of information and communication technology used in economics?
19. Describe the quantitative aspects of population.
20. Explain the various sources of energy in Tamil Nadu.