

PGDFM & I (Sem.-1) Examination
Techniques of Financial Analysis
April 2019

Time : 2-30 Hours]

[Max. Marks : 70

- Q-1 ATTEMPT ANY THREE from the following: (12)**
- Which ratios focus on the credit policy of the company? Discuss in detail, also writes factors to be considered while determining credit policy.
 - Current ratio of the company is 2, liquid ratio of the company is 1, net working capital is Rs 1,00,000 and if value of bank overdraft is Rs 20,000 what will be the value of stock? Also comment on standard liquid and current ratio.
 - Which ratio discusses capital structure of the company? Discuss the degree of risk to the company with reference to the debt decisions.
 - higher the stock turnover ratio, indicates better position of the company, discuss significance of the statement

- Q-2 ATTEMPT ANY TWO from the following: (10)**
- Scope of fund flow statement is more wider as compared to cash flow statement explain the significance of the statement in the light of differences between both.
 - Write in detail factors to be taken in to consideration for taking decision with respect to make or buy decisions by taking practical example.
 - "Companies and manufacturing firms are preferring to have outsourcing the job or work in 21st century" explain how outsourcing is advantageous to them by considering factors for taking decision of In sourcing and Outsourcing.

- Q-3 From the given data compute gross profit ratio, net profit ratio, stock turnover ratio, debt equity ratio, return on equity capital, return on capital employed. (10)**
- Sales Rs 5,00,000
 Cost of goods sold Rs 3,00,000
 administrative and sales and distribution expenses Rs 50,000
 Average stock Rs 25,000
 5% Debentures of Rs 1,00,000 and each Equity share of Rs 10 total equity capital is of Rs 1,00,000 are total in capital structure

- Q-4 (a) Solve the following: (10)**
- Find the maximum and minimum values of $f(x) = 2x^3 - 15x^2 + 36x + 1$
 - If the demand function is $x = \sqrt{7500 - 100p}$, find the maximum revenue.

OR

- The utility function of a consumer is $u = 4x^3y^3$. The prices of two commodities are Rs.1 and Rs.2 respectively and total budget is Rs.12. Find the values of x and y for maximum utility.
- The total cost function is $C = 5x^3 + 2x^2 + 7x + 1000$. Find the marginal cost when $x = 10$. Also find average cost function.

- (b) Solve any two from the following (6)**

(i) If $f(x, y) = 2x^3 + x^2y - 3xy^2 - y^3$
 Find $\frac{\partial f}{\partial x}$ and $\frac{\partial f}{\partial y}$

(ii) $y = 2x^2 - x + s$, Find the equation of tangent line for the curve at $x = 1$.

(iii) $f(x) = \sqrt[3]{x}$ find $f^{-1}(x)$.

(iv) What is elasticity of demand? Interpret if its value is <1 and when it is >1 .

- Q-5 (a) Solve the following: (12)**

- i. A company manufacturing tyres obtained the following results.

Life of Tyre (in'000kms)	20-25	25-30	30-35	35-40	40-45
No. of Tyres	1	22	64	10	3

Find the coefficient of variation.

(iii) Find short term fluctuations by using 3 yearly moving average method.

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sales	23	28	32	24	32	37	27	36	38	32

OR

(iii) Find the correlation coefficient by Karl-Person and Spearman's method.

x	12	18	20	14	16
y	5	14	17	8	11

(iv) By taking $x = 0.4$ and initial forecast as 100, find the forecasts for the following years.

Year	2005	2006	2007	2008
Profit	120	135	145	160

(b) Choose the correct alternative from the following.

(10)

- (1) For a symmetric distribution, $(Q_3 - M) \underline{\hspace{1cm}} (M - Q_1)$
 (a) = (b) \neq (c) $>$ (d) $<$
- (2) If the sum of observations and its arithmetic mean are 390 and 13 respectively. What is the value of n ?
 (a) 30 (b) 377 (c) 10 (d) None
- (3) If the mean and variance of a data are 50 and 25. Find C.V.
 (a) 10 (b) 200 (c) 25 (d) None
- (4) If $\sum(x - \bar{x})(y - \bar{y}) = 120, n = 10, S_x = 5, S_y = 3$ the find r .
 (a) 0.8 (b) 8 (c) 80 (d) 0.5
- (5) If the regression line of y on x is $y = 10 + 0.3x$ the $b_{yx} = \underline{\hspace{1cm}}$
 (a) 0.3 (b) 10.3 (c) 9.7 (d) None
- (6) The equation of a linear trend is
 $y = 150 + 11.5 \left(\frac{x - 2012}{2} \right)$ where $x = \text{year}$.
 forecast for the year 2014.
 (a) 161.5 (b) 23311 (c) 173 (d) None
- (7) "The decrease in production due to strike of workers" is an example of $\underline{\hspace{1cm}}$ variation.
 (a) Irregular (b) Seasonal (c) Trend (d) Cyclical
- (8) Generally the period of cyclical variation is $\underline{\hspace{1cm}}$.
 (a) more than 1 year (b) less than 1 year
 (c) always more than 5 years (d) None
- (9) Which of the following is a non-linear trend equation?
 (a) $y = a + bx + cx^2$ (b) $y = a + bx$
 (c) $y = x - 5$ (d) $y = 2x + 7$
- (10) The quarterly average sales are 60, 45, 70 and 25. Find the seasonal Index for the last quarter.
 (a) 50 (b) 200 (c) 120 (d) 175

X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X