



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Scheme for Valuation/Answer Key

Scheme of evaluation (marks in brackets) and answers of problems/key

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019

Course Code: MP484

Course Name: Project management

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any three full questions, each carries 10 marks.

Marks

- 1 a) Planning, Analysis, Selection, Financing, Implementation, and Review(Name + Explanation) (1+6)
- b) SWOT analysis, Determination of objectives, Creating Good environment (3)
- 2 a) the Boston Consulting Group (BCG) analyses products on the basis of (5+5)
 - 1. Relative Market Share And
 - 2. Industry Growth Rate.

classifies products into four broad categories

		Market Share	
		High	Low
Market Growth Rate	High	Stars	Question Marks
	Low	Cash Cows	Dogs

The General Electric Company of US

Business Strength -How strong - its competitors?

Industry attractiveness -What is the attractiveness or potential of the industry

		Business Strength		
		Strong	Average	Weak
INDUSTRY ATTRACTIVENESS	High	Invest	Invest	Hold
	Medium	Invest	Hold	Divest
	Low	Hold	Divest	Divest

- 3 a) ➤ its reliability, accuracy, and relevance for the purpose under consideration must be carefully examined. (2)

- Who gathered the information? What was the objective?
- When was the information gathered? When was it published?
- How representative was the period for which the information was gathered?
- What was the target population?
- How was the sample chosen?
- How satisfactory was the process of information gathering?
- Any four points

b) According to the moving average method (8)

$$F_{t+1} = \frac{S_t + S_{t-1} + \dots + S_{t-n+1}}{n}$$

- where F_{t+1} = forecast for the next period
- S_t = sales for the current period
- n = period over which averaging is done

Given $n = 3$, the forecasts for the period 4 to 14 are given below:

Period t	Data (S_t)	Forecast (F_t)	Forecast for $t + 1$ $F_{t+1} = (S_t + S_{t-1} + S_{t-2}) / 3$
1	2,000		
2	2,200		
3	2,100		$F_4 = (2000 + 2200 + 2100) / 3 = 2100$
4	2,300	2100	$F_5 = (2200 + 2100 + 2300) / 3 = 2200$
5	2,500	2200	$F_6 = (2100 + 2300 + 2500) / 3 = 2300$
6	3,200	2300	$F_7 = (2300 + 2500 + 3200) / 3 = 2667$
7	3,600	2667	$F_8 = (2500 + 3200 + 3600) / 3 = 3100$
8	4,000	3100	$F_9 = (3200 + 3600 + 4000) / 3 = 3600$
9	3,900	3600	$F_{10} = (3600 + 4000 + 3900) / 3 = 3833$
10	4,000	3833	$F_{11} = (4000 + 3900 + 4000) / 3 = 3967$
11	4,200	3967	$F_{12} = (3900 + 4000 + 4200) / 3 = 4033$
12	4,300	4033	$F_{13} = (4000 + 4200 + 4300) / 3 = 4167$
13	4,900	4167	$F_{14} = (4200 + 4300 + 4900) = 4467$
14	5,300	4467	

- 4 a) Any 6 sources(1 marks each) (6)
- b) Any 2 - 2 marks each (4)

PART B

Answer any three full questions, each carries 10 marks.

- 5 a) the major components of cost of production-any four-1.25x4=5 marks (5)
- b) estimating sales revenues-5 marks (5)
- 6 a) Whether the technology utilises local raw materials? (2)

Whether the technology utilises local manpower?

Whether the goods and services produced cater to the basic needs?

Whether the technology protects ecological balance?

Whether the technology is harmonious with social and cultural conditions?

- b) (6+2)
- Share capital
 - Equity capital -by the owners
 - Preference capital -by preference shareholders
 - Term loans
 - by financial institutions
 - Rupees term loans and foreign currency term loans.
 - Debenture capital
 - Non-convertible debentures and convertible debentures
 - Deferred credit
 - credit facility
 - Incentive sources
 - The government and its agencies may provide financial support
 - Miscellaneous sources
 - unsecured loans, public deposits, and leasing and hire purchase finance.

The key business considerations relevant for the project financing decisions are:

- Cost
- Risk
- Control
- Flexibility

- 7 a) **Initial investment:** (3)

after-tax cash outlay on capital expenditure and net working capital when the project is set up.

Operating cash inflows:

after-tax cash inflows resulting from the operations of the project during its economic life.

Terminal cash inflow:

after-tax cash flow resulting from the liquidation of the project at the end of its economic life.

- b) The process of investing money as well as reinvesting the interest earned thereon is called compounding. (4)

Formula $FV_n = PV(1 + r)^n$

Future value = Present value [1 + Number of years x Interest rate]

- c)

$$Rs.1,000 (1.10)^4 + Rs.1,000 (1.10)^3 + Rs.1,000 (1.10)^2 + Rs.1,000 (1.10) + Rs.1,000$$

$$= Rs.1,000 (1.4641) + Rs.1,000 (1.331) + Rs.1,000 (1.21) + Rs.1,000 (1.10) + Rs.1,000$$

$$= Rs.6,105$$
 (3)

- 8 a) present value of an annuity-4 marks (4)
 b) Equation-2 marks (6)
 Find out the solution-4 marks

PART C

Answer any four full questions, each carries 10 marks.

- 9 a)
$$NPV = \sum_{t=1}^n \frac{C_t}{(1+r)^t} - \text{Initial investment}$$
 (4)
 1 mark

Properties any 3(3 mark)

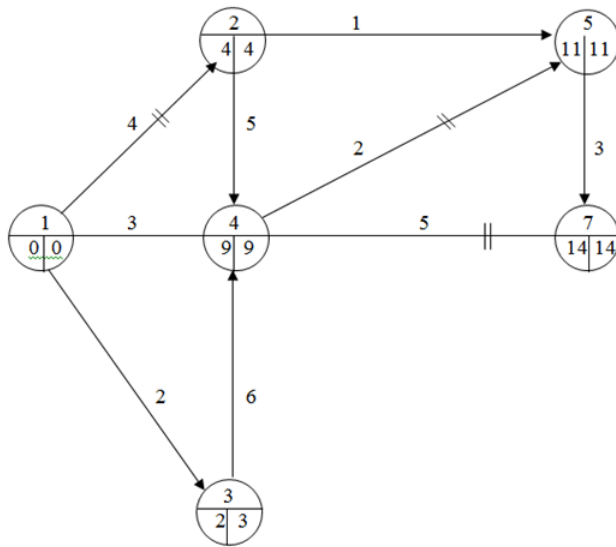
- b) (i) Define r_D as the pre-tax cost of debt. Using the approximate yield formula, r_D can be calculated as follows: (6)

$$r_D = \frac{14 + (100 - 108)/10}{0.4 \times 100 + 0.6 \times 108} \times 100 = 12.60\%$$

(ii) After tax cost = $12.60 \times (1 - 0.35) = 8.19\%$
 Formula 2 marks, substitution+ final answer 4mark

- 10 a) cost of preference-4 marks (4)
 b) Equation-2 marks (6)
 Find out the solution-4 marks
- 11 a) Payback period-3, evaluation-3 marks, limitation-2 marks (8)
 b) Two points-1 mark each (2)
- 12 a) 3 main reasons and explanation, list 3 new forms (3)

b)



(7)

There are two critical paths: 1-2-4-5-7 and 1-2-4-7. The minimum time required for completing the project is 14 weeks.

Diagram 5, path 1, time 1

- 13 a) Definition-2 marks, Advantages & limitations-1.5 marks for each (5)
 b) Explanation of 3 levels-1 mark each, diagram-2 marks (5)
- 14 a) human aspects of project management-5 marks. (5)
 b) rules of network construction in a project- 5 marks. (5)
