TY-BMS (Sem-6) (Regular)

2Hrs 30 min 75 Marks

Please check whether you have got the right question paper.

Note : 1. All questions are compulsory. (Subject to Internal Choice)
2. Figures to the right indicate full marks.
3. Use of non–programmable calculator is allowed and mobile phones are not allowed.
4. Normal distribution table is printed on the last page for reference.
5. Support your answers with diagrams / illustrations, wherever necessary.
6. Graph papers will be supplied on request.

Q1.A) Multiple choice questions (Attempt Any 8) (8)

i) In linear programming, unbounded solution means _____
a) Infeasible solution b) Degenerate solution c) Infinite solutions d) Unique solution

ii) If M + N – 1 = Number of allocations in transportation, it means _____
(Where 'M' is number of rows and 'N' is number of columns)
a) There is no degeneracy b) Problem is unbalanced
c) Problem is degenerate d) Solution is optimal

iii) Floats for critical activities will be always _____
a) One b) Zero c) Highest d) Same as duration of the activity

iv) The total time required to complete all the jobs in a job sequencing problem is known as _____
a) Idle time b) Processing time c) Elapsed time d) Processing order

v) In linear programming, _____ represents mathematical equation of the limitations imposed by the problem.
a) Objective function b) Decision variable c) Redundancy d) Constraints

vi) If in an assignment problem, number of rows is not equal to number of columns then _____
a) Problem is degenerate b) Problem is unbalanced
c) It is a maximization problem d) Optimal solution is not possible

vii) The maximum time in which an activity will be completed assuming all possible delays and postponements is termed as _____
a) Optimistic time b) Most likely time c) Pessimistic time d) Expected time

viii) The various alternatives or courses of actions available to each player in a game are called as _____
a) Saddle points b) Strategies c) Pay off d) 'n' player game

ix) In simplex, a maximization problem is optimal when all Delta J, i.e. Cj – Zj values are _____
a) Either zero or positive b) Either zero or negative
c) Only positive d) Only negative

x) Which of the following considers difference between two least costs for each row and column while finding initial basic feasible solution in transportation?
a) North west corner rule b) Least cost method
c) Vogel's Approximation method d) Row minima metho

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Q1.B) True or false (Attempt Any 7) (7)

i) Probability of a project completing in its expected time (Te) will be always 100%.
ii) If saddle point is available in a game, it is called as pure strategy game.
iii) Slack represents unutilized resources.
iv) If in a transportation problem, number of rows is not equal to number of columns, then the problem is unbalanced.
v) If we introduce an unnecessary dummy activity, the error is termed as redundancy.
vi) Job sequencing problems are solved to ensure that, both, the total time to complete all jobs and idle time of each machine are maximum.
vii) When more than one optimal solution is possible in a linear programming problem, it is termed as 'unique solution'.
viii) Regret matrix is made to convert a maximization problem into minimization problem in assignment.
ix) Critical path method (CPM) considers the three time estimates: most likely, optimistic and pessimistic time estimates.
x) In solving a job sequencing problem, it is assumed that all jobs require the same sequence of operations.

Q2. A) (8)

A company produces 2 products A and B. x_1 and x_2 are the quantities manufactured of Products A and B respectively. The following objective function along with constraints is given to you:

Max $Z = 8x_1 + 16x_2$

Subject to constraints:

$x_1 + x_2 \leq 200$

$x_2 \leq 125$

$x_1 + 2x_2 \leq 300$

$x_1 \geq 0; x_2 \geq 0$

Find how many units of Product A and Product B should be produced by the company so that the profit is maximized. Is it a case of multiple optimal solutions? Use **graphical method** to solve the LPP.

Q2.B) You are given the per unit cost of transporting goods from 3 factories to 4 customers. The 3 factories A, B and C have capacity to supply 500, 300 and 200 units respectively. The 4 customers P, Q, R and S require 180, 150, 350 and 320 units respectively.

Factory \ Customers	P	Q	R	S
A	12	10	12	13
B	7	11	8	14
C	6	16	11	7

(i) You are required to find the Initial Basic Feasible Solution using Vogel's Approximation Method. (5)

(ii) Find the total cost of transportation schedule obtained using VAM. (2)

OR

Q2.C) You are given the following details for a project consisting of 8 activities:

ACTIVITY	NODE	DURATION (days)
A	1 - 2	4
B	1 - 3	6
C	1 - 5	13
D	2 - 3	5
E	2 - 4	20
F	4 - 6	10
G	3 - 6	6
H	5 - 6	16

(i) Draw the network diagram and identify the critical path. (3)
(ii) Find earliest start time, earliest finish time, latest start time and latest finish time for each activity. (4)
(iii) Find free float for activity B. (1)

Q2. D) There are 6 jobs to be performed in a factory and each would go through 2 machines A and B in the order AB. The processing time (in hours) is given for each job in each machine.

Job	Machine (A)	Machine (B)
I	7	3
II	4	8
III	2	6
IV	5	6
V	9	4
VI	8	1

(i) Determine the sequence of performing the jobs that would minimize the total time of completing all the jobs. (2)
(ii) Find total elapsed time. (3)
(iii) Find idle time for both the machines. (2)

Q3.A) Six jobs are to be processed in three machines A, B and C in the order A-B-C. You are given time for each job in each machine.

JOB	Time in Machine (A) - hours	Time in Machine (B) - hours	Time in Machine (C) - hours
I	12	3	7
II	8	4	10
III	7	2	9
IV	11	5	6
V	10	2	11
VI	5	4	4

(i) Find the sequence that minimizes the total elapsed time required to complete the jobs. (2)
(ii) Calculate the total elapsed time (3)
(iii) Find idle time on Machine A, Machine B and Machine C. (3)

Q3.B) You are given the following details for a project with 8 activities:

Activity	Node	Optimistic time (days)	Most likely time (days)	Pessimistic time (days)
A	1 – 2	4	6	8
B	2 – 3	5	7	15
C	2 – 4	4	8	12
D	3 – 5	10	18	26
E	4 – 6	8	9	16
F	5 – 7	4	8	12
G	6 – 7	1	2	3
H	7 – 8	6	7	8

(i) Draw the network diagram. (3)
(ii) Find the expected time of project completion along with standard deviation. (2)
(iii) What is the probability of the project completing in 55 days? (2)

OR

Q3. C) You are given information about the cost (in Rs. Thousands) of performing different jobs by different persons. P1 cannot perform J3. P3 cannot perform J4.

		JOB				
PERSON		J 1	J 2	J 3	J 4	J 5
	P1	27	18	X	20	21
	P2	31	24	21	12	17
	P3	20	17	20	X	16
	P4	22	28	20	16	27

(i)Obtain optimal assignment and find cost of such assignment. (7)
(ii)Is it a case of alternative optimal solution? (1)

Q3.D) Two firms, Lacko texiles and Rayon textiles have 3 strategies each to select from. The 3 strategies are no advertisement, using moderate advertising and using heavy advertising. You are given the pay off matrix from view point of Lacko textiles, showing its market share under several combinations of strategies:

pay-off in Rs.10,000/-

		Rayon textiles		
		No advt (I)	Mod advt (II)	Heavy advt (II)
Lacko textiles	No advt (I)	50	40	28
	Mod advt (II)	70	50	45
	Heavy advt (III)	75	52	50

(i) Find the saddle point and value of game. (2)
(ii) Comment on the strategy to be selected by both the companies. (5)

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Q4. A) You are given a solution for a transportation cost problem. Figures in each cell represent per unit transportation cost. Figures in circle within each cell represent number of units allocated for transportation. X, Y and Z are the 3 factories and A, B, C and D are the 4 customers.

	A	B	C	D	Supply
X	13	(200) 7	19	0	200
Y	17	(120) 18	15	(380) 7	500
Z	(180) 11	22	(100) 14	(20) 5	300
Demand	180	320	100	400	

(i) You are required to check the above solution for optimality. (3)
(ii) If it is not optimal, use modified distribution method to obtain optimal solution. (3)
(iii) Find optimal transportation cost. (2)

B) You are given the following information for a project with 8 activities:

Node	Normal Duration (days)	Crash cost per day (Rs)	Maximum possible crash time
1 – 2	6	80	2
1 – 3	8	90	4
1 – 4	5	30	2
2 – 4	3	–	0
2 – 5	5	40	2
3 – 6	12	200	4
4 – 6	8	50	3
5 – 6	6	-	0

The cost of completing the eight activities in normal time is Rs.6,500.
Indirect cost is Rs.160 per day. The contract includes a penalty of Rs.100 per day for every day of delay more than 17 days.

(i) Draw the network diagram and find critical path. (3)
(ii) Crash the project duration to find the total cost of completing the project in 17 days (4)

OR

Q4.C) A company produces 2 products x_1 and x_2 using three resources S_1, S_2 and S_3. Product x_1 gives profit of Rs.30 per unit and product x_2 gives profit of Rs.40 per unit. The 3 resources S_1, S_2 and S_3 are available to the extent of 200 units, 600 units and 500 units respectively. The following objective function and constraints are given to you:

Max $Z = 30x_1 + 40x_2$

Subject to constraints:

$x_1 + 2x_2 \leq 200$

$8x_1 + 5x_2 \leq 600$

$3x_1 + 4x_2 \leq 500$

$x_1 \geq 0; x_2 \geq 0$

You are given the following simplex solution to the above problem:

		Cj →	30	40	0	0	0
C	X	B	x_1	x_2	S_1	S_2	S_3
40	x_2	100	1/2	1	1/2	0	0
0	S_2	100	11/2	0	(-) 5/2	1	0
0	S_3	100	1	0	(-) 2	0	1
		Zj →	20	40	20	0	0

A) With reference to the above table answer the following:
i) Check if the above solution is optimal or not. (2)
ii) If it is not optimal, find optimal solution. (5)

B) With reference to the optimal simplex table in the above problem obtained by you, answer the following:
iii) Find the optimal product mix and optimal profit (2)
iv) Which resources are scarce and which are unutilized? (2)
v) Is it a case of alternative solution? Justify your answer (2)
vi) What are the shadow prices of the resources? Justify. (2)

Q5 A) Explain the concepts: Total float, Free float, Independent float and Interfering float. (8)
B) Discuss any 5 areas where techniques of operations research can be applied. (7)

OR

C) Answer <u>any 3</u> of the following : (15)
i) Explain the terms: Redundant constraint and infeasibility in linear programming
ii) What do you mean by alternative optimal solution in transportation? How do you identify alternative solution in a transportation problem? Further what is the procedure to find that alternative solution?
iii) Explain time cost trade off in project crashing.
iv) Discuss the significance of theory of games. Briefly discuss the terms: Players and Pay off.
v) Distinguish between PERT and CPM.

NORMAL DISTRIBUTION TABLE

Area Under the Standard Normal Distribution

Z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2518	0.2549
0.7	0.2580	0.2612	0.2642	0.2673	0.2705	0.2734	0.2764	0.2797	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4464	0.5473	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4938	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4846	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.7893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4820	0.4922	0.4925	0.4927	0.4931	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4958	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4988	0.4986
3.0	0.49865	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4996
4.0	0.49968									

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TY BMS
03/5/19

Marks: 75 **Duration: 2.5 Hours**

Note:

1) All questions are compulsory subject to internal choice.
2) Figures to the right indicate full marks.
3) Use of simple calculator is allowed

Q.1.

(a) Fill in the blanks by choosing the right option (any 8): **(08)**

(1) Reserves are held in following forms except _____.(Foreign Currency, SDR, Silver)

(2) Under _____ there is interference of monetary authorities to decide exchange rates.(Fixed Exchange System, Flexible Exchange rate System, both)

(3) SBI A/C with HSBC in UK is an example of _____.(LORO, NOSTRO, VOSTRO)

(4) PPP theory _____ government intervention. (ignores, includes, requires)

(5) The project is financially viable if NPV is _____.(positive, negative, zero)

(6) _____ is known as secrecy jurisdiction. (Tax haven, Transfer pricing, foreign affiliate)

(7) _____ risk is also called as "Accounting exposure". (Transaction, Economic, Translation)

(8) _____is a type of security listed in Luxemburg. (ADR, GDR, IDR)

(9) An option giving the buyer of the options the right but not the obligation to buy a currency is _____. (call option, put option, forward option)

(10) Difference between the value of merchandise exports & imports is _____. (BOP, BOT, Reserve A/C)

Q.1.(B) State whether the following statements are True or False (any 7): **(07)**

(1) FDI is recorded in capital account of Balance of payments.
(2) Under fixed exchange rate system value of currency is decided by market forces of demand & supply forces.
(3) Spread is bid-ask.
(4) Hedging means protecting the business from risks.
(5) Standardized contract terms are used in Forward contract.
(6) A Euro bond is an international bond denominated in a currency not native to the country where it is issued.
(7) Sensex includes 30 largest & most actively traded stocks in BSE.
(8) Entry & exit of FDI is more difficult compared to FPI.
(9) There is lot of transparency in tax havens.
(10) AFM stands for Arbitrageur's Forward Margin.

Q.2.

(A) Explain the concept of International Finance and discuss the emerging challenges in International Finance. (08)

(B) State the difference between fixed and flexible exchange rate system. (07)

OR

(P) Spot USD/CAD 1.1045 – 1.1095
USD Interest rate 2.50% p.a.
CAD Interest rate 3.25% p.a.
Calculate 90 days forward USD/CAD quotation. (08)

(Q) Spot USD/INR 45.0260 - 45.0315
1 month forward 485 - 535
2 month forward 985 - 1060
Calculate outright forward rate for 1 month & 2 month.
Calculate outright forward rate for 45 days. (07)

Q.3.

(A) Briefly describe the structure of Indian foreign exchange market. (08)

(B) Explain various types of currency derivatives. (07)

OR

(P) The following quote is given by a bank in Mumbai:
1 USD = INR 67.7550 – 67.7575 (08)

- Is this quote "Direct" or "Indirect" in Mumbai?
- Calculate Mid-rate, Spread and Spread %
- Find the inverse quote.

(Q) From the following data decide on the best alternative for investing INR 10 Million for a temporary period of 6 months on risk free basis. Ignore transaction cost. (07)

Currency	Spot	6 month forward	Interest Rate
EUR	80.2650	80.2950	4.00 %
USD	64.1225	64.1275	4.50 %
GBP	95.3550	95.3650	3.00 %

Q.4.

(A) Discuss any two types of Euro Bonds in detail. (08)

(B) Describe various types of capital budgeting techniques. (07)

OR

(P) The following quotes are given in US:
GBP/USD-1.5393-1.5403
USD/AUD-0.9790-0.9800
And the given quote in Australia is:
GBP/AUD-1.5100-1.5110
i) Derive the quote GBP/AUD from the set of quotes given in US
ii) Compare the derived GBP/AUD quote with the quote given in Australia and find arbitrage if any on 1 Million GBP. (08)

(Q) From the following given details calculate NPV. Required Rate 10%. (07)

Particulars	Amount in Rs.
Cost of investment	2,00,000
Expected Life (No salvage value): 5 Years	-
Cash inflow: year- 1	60,000
2	50,000
3	60,000
4	60,000
5	60,000

The present value of Re. 1 at 10% discounting rate are 0.909, 0.826, 0.751, 0.683, 0.621

Q.5.

(A) What are different types of foreign exchange risks faced by firms? (08)

(B) Describe the objectives of taxation. (07)

OR

Write Short Notes on (any three) (15)

1) Arbitrage
2) FEDAI.
3) GDRs
4) FEMA
5) Tax havens

Time: 2½ Hours **Total Marks: 75**

Note: (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

Q.1. Objective questions:

Q.1 (a) State whether the following are True or False (any 8): **(8 Marks)**

1. Capital intensive project involves small amount of investment.
2. Project structure provides a training ground to project managers.
3. Depreciation is a non- cost item.
4. Feasibility study involves cash flow analysis
5. Delphi method is an individual decision making technique.
6. Lean means creating more value for customers with firm resources.
7. Risk monitoring and controlling involves keeping a track of the identified risk.
8. PMMM strengthens link between strategic planning and execution.
9. Project management consultants manage the project by application of their knowledge, skill and experience at various stages.
10. ARR method is based on accounting profit.

Q.1 (b) Match the Column (any 7): **(7 Marks)**

Column A	Column B
1. Project Manager	a) Depends on FMP
2. Debentures	b) Increases Financial Risk
3. High Gearing	c) has 5 Levels
4. Yield Value	d) Leader of Project Team
5. PMMM	e) Debt Security
6. Project Audit	f) When Testing Fails
7. Project Terminated	g) Controls Project
8. Numeric Project Selection	h) The sacred cow
9. Non Numeric Project Selection	i) Pay back period
10. System integration	j) Engineering process

Q.2. A company can make either of two investments. Required rate of return is 10%. Calculate Net Present Value and profitability index for each project from the following details: **(15 Marks)**

Particular	X	Y
Cost of Investment (Rs.)	2,00,000	2,80,000
Expected Life (No Salvage)	5 years	6 years
Cash Inflow		
1	50,000	80,000
2	50,000	1,00,000
3	60,000	60,000
4	60,000	80,000
5	60,000	80,000

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	Year 1	Year 2	Year 3	Year 4	Year 5
PV of Rs.1 @ 10% of:	0.909	0.826	0.751	0.683	0.621

OR

Q. 2 (a) How are project classified? **(8 Marks)**

Q. 2 (b) Explain Strategic Business Unit (SBU) in project management. **(7 Marks)**

Q.3 Calculate the operating leverage, financial leverage and combined leverage from the following data: **(15 Marks)**

Particulars	A Ltd	B Ltd
Output (in units)	3,00,000	75,000
Fixed Cost	36,000	70,000
Variable cost per unit (Rs.)	1.00	7.50
Selling price per unit (Rs.)	3.00	25

OR

Q. 3 (a) Discuss the importance of Project Feasibility Study. **(8 Marks)**

Q. 3 (b) Explain in detail Product Mix analysis. **(7 Marks)**

Q.4 Following is the Balance sheet of Raj Ltd as on 31st March, 2014 **(15 Marks)**

Liabilities	Rs.	Assets	Rs.
50,000 Equity Shares of Rs.20 each	10,00,000	Machinery	4,80,000
Securities Premium	2,00,000	Furniture	2,00,000
General Reserve	4,78,800	Stock	12,40,000
Profit & Loss A/C	3,14,000	Debtors	4,12,000
Creditors	8,18,000	Cash in hand	6,800
Provision for Tax	3,96,000	Cash at Bank	8,68,000
	32,06,800		32,06,800

Company transfer 20% of profit after tax to general reserve.

Net Profit before Taxation for the last 3 years have been as follows:

1. For the year ended 31/03/2012 Rs. 5,44,000
2. For the year ended 31/03/2013 Rs. 7,32,000
3. For the year ended 31/03/2014 Rs. 7,88,000

Machinery is valued at Rs. 6,37,200. Average yield is 20%. The rate of Tax is 50%. Use simple average. Calculate value of equity share as per intrinsic value method and yield method.

OR

Q.4 (a) Explain Modern Development in Project Management. **(7 Marks)**

Q.4 (b) What are the steps involved in termination of a project? **(8 Marks)**

Q.5 Case Study **(15 Marks)**

Mr. Ajay wants to start a Manufacturing Unit. He has Rs.1,05,200 in his bank account. His parents have promised to gift him Rs.3,50,000.

He has estimated the project cost at Rs. 18,00,000; of which machinery will be Rs. 15,25,000 and the balance amount will be for furniture and fittings. The bank finance is available to the extent of 80% of the project cost. He expects first year's sales at Rs. 40,00,000 with annual increase of 20% every year over previous year. The cost of sales will be 80% of sales. The rate of interest on loan will be 10% on reducing balance method. The loan is repayable @ Rs. 3,00,000 at the end of every year. He charges depreciation @ 20% on his fixed assets under straight line and his overheads for three years are Rs. 2,40,000; Rs.3,00,000 and Rs. 3,60,000 per year respectively. Assume Tax rate @30%.

You are required to prepare:

1. Income Statement for the first 3 years.
2. Amortization Schedule for loan.
3. Calculate the debt service coverage ratio and interest coverage ratio for the above 3 years.

OR

Q.5 Short Notes (Any 3) **(15 Marks)**

a) Types of Risks in Projects
b) Work Breakdown Structure
C) Matrix Organization
d) SWOT Analysis
e) Project Management Information System (PMIS)

TIME:- 2 ½ HRS MARKS:-75

N.B.: 1. All questions are compulsory.
2. Working notes should form part of your answer.
3. Figures to the right indicate full marks.

Q.1 (A) **Choose the correct Option and rewrite the sentence: (Any Eight)** (08)

1. The most common form of dividend payment is _____.
(a) Stock Dividend (b) Cash Dividend (c) Stock Split (d) Bonus issue
2. XBRL India is formed as one of the following.
(a) Registered Company (b) Government Corporation
(c) Trust (d) Partnership with XBRL International
3. Estimate of cash flow is affected by _____.
(a) Future Price Trend (b) Competition (c) Sales volume (d) All of the Above
4. _____ ensures that less number of projects are selected by imposing capital restrictions.
(a) Capital structure (b) Capital Budgeting
(c) Capital Rationing (d) None of the above
5. EVA is a corporate surplus which is shared by _____.
(a) Employees and Management (b) Employees and Shareholders
(c) Shareholders only (d) Employees, Management and Shareholders
6. Corporate Governance practice includes _____.
(a) Audit Committee (b) Management Analysis
(c) Communication (d) All of the Above
7. In Amalgamation, all the assets and liabilities of the transferor company are pooled into the books of transferee company at _____.
(a) Market Value (b) Books Value (c) Fair Value (d) Realizable Value
8. NPA stands for _____.
(a) Net Performing Assets (b) Non Performing Assets
(c) Non Privilege Assets (d) None of the Above
9. Public deposits are accepted for a maximum of _____ years.
(a) 1 (b) 2 (c) 3 (d) 5
10. In India, Commercial Papers are issued as per the guidelines issued by _____.
(a) SEBI (b) RBI
(c) Forward Market Commission (d) None of the Above

B) **State whether the following questions are True or False (Any Seven)** (07)

1. The dividend policy of a firm is decided by its Board of Directors.
2. XBRL provides reporting framework that controls risks.
3. In sensitivity analysis, the sensitivity of human factor is identified.
4. Capital rationing is caused by external factors only.
5. Fictitious assets are added to the share capital to get networth.
6. Disclosure is the principle of corporate governance.

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7. Preference dividend is added to NPAT for calculation of EPS
8. Standard assets are those assets which do not have any risk.
9. Term loan is an advance given by bank to its customers.
10. Depreciation is an external source of finance.

Q.2 (A) The details regarding two companies are given below:- (08)

A Ltd	B Ltd
R = 15%	R = 8%
K_e = 10%	K_e = 10%
E = ` 10	E = ` 10

By using Walter's Model, calculate the value of an equity share of each of these companies when the dividend payout ratio is:
(a) 20% (b) 50%

(B) The following data is available from KPO Ltd:- (07)
Earnings per share =` 60
Rate of Return on investment = 16%
Cost of Capital = 15%
Calculate the market price of a share of KPO Ltd as per Gordon's Model, if
(i) b = 40% (ii) b = 60% (iii) b = 80%

OR

(C) Mark Ltd. belongs to a risk class for which the capitalization rate is 10%. It has 50,000 outstanding shares and the current market price is ` 100. It expects a net profit of ` 5,00,000 for the year and the board is considering a dividend of ` 5 per share. Mark Ltd has a proposal for making new investments of ` 10,00,000. You are required to calculate:- (15)
(i) Market Price per share when dividend is declared and not declared.
(ii) No. of new shares to be issued by the company if dividend is declared and not declared.
(iii) Calculate the market value of the firm when dividend is declared and not declared

Q.3 (A) PAM Ltd is considering two mutually exclusive projects viz., Project A and Project B which require cash outflow of `30,00,000. The expected cash inflows are as follows:- (15)

Year	Project A	Project B
1	12,00,000	17,00,000
2	9,00,000	11,00,000
3	7,00,000	8,00,000
4	6,00,000	8,00,000

The company has a target return on capital of 10%. The risk premium for Project A and Project B are 2% and 8% respectively.
Which project should be accepted? Why?

OR

(B) Zebra Ltd is considering two mutually exclusive projects. Investment outlay of both the project is ` 2,50,000 and each is expected to have a life of 5 years.. under three possible situations their annual cash flows are as under (08)

Situation	Probabilities	Project X (` in Lakhs)	Project Y (` in Lakhs)
Good	0.3	30	25
Normal	0.4	20	20
Worse	0.3	10	15

Which Project is more risky? Why?

(C) Steep Ltd. is considering the following projects:- (07)

Project	Outlay (`)	NPV
P	30,00,000	5,00,000
Q	20,00,000	9,00,000
R	18,00,000	8,00,000
S	16,00,000	7,00,000
T	14,00,000	6,00,000

The total fund available is `50,00,000. Determine optimal combination of projects assuming that the projects are divisible.

Q.4 (A) Tom Ltd in intending to purchase Jerry Ltd (by merger). The following details are available:- (08)

Particulars	Tom Ltd.	Jerry Ltd.
Earnings after Tax	`25,00,000	` 9,00,000
Number of Equity shares	5,00,000	3,00,000
Market Price Per share	`15	`12

You are required to calculate:-

(i) Present EPS of both the companies.

(ii) If the proposed merger takes place, what would be the new EPS of Tom Ltd assuming that merger takes place by exchange of equity shares and the exchange ratio is based on market price per share.

(B) The following data is provided by Zampa Ltd for the year. You are required to calculate the missing figures? (07)

Sales Value	` 5,00,000
Income	` 1,00,000
Capital Employed	` 1,25,000
Weighted Average cost of capital	8%
Sales Margin(%)	?
Capital Turnover (Times)	?
Return on Investment (%)	?
Economic Value Added (`)	

OR

(C) The following information is pertaining to Akli Ltd. (08)

Budgeted Sales per week – 500 units

The cost details of the company are as follows:-

Cost Elements	Per Unit (₹)
Raw Materials	6.00
Direct Labour	8.00
Overhead	4.00
Total Cost	18.00
Profit	2.00
Sale Price per unit	20.00

It is estimated that :-

1. Raw materials remain in stock for 3 weeks and finished goods for 2 weeks.
2. Factory processing takes 3 weeks
3. Suppliers allows 6 week credit
4. Customers are allowed 8 weeks credit.
5. Assume production and overheads accrue evenly throughout the year.

Prepare a statement showing working capital requirement and also calculate Maximum Permissible Bank Finance (MBPF) as per first and second method of lending.

(D) X ltd as provided the details of advances. Calculate the provisions to be made in the Profit & Loss account. (07)

Assets	in Lakhs
Standard	12,000
Sub-standard	8800
Doubtful:	
For one year	3600
For two years	2400
For three years	1600
For more than three years	1200
Loss Assets	1000

Q.5 (A) Define XBRL. Explain its advantages and disadvantages. (08)

(B) Explain the advantages of Corporate Governance. (07)

OR

Q.5 (C) **Write Short notes: (Any Three)** (15)

(i) Sources of Working Capital

(ii) Merger

(iii) Maximum Permissible Bank Finance

(iv) Decision Tree Analysis

(v) Capital Rationing

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[Time: 2.5 Hours] [Marks:75]

Q.1 (A) True and False (any 7) (7)

1. Financial services do not have physical existence.
2. Cost of Factoring = Finance cost – Operating cost.
3. There are 5 types of underwriters.
4. In Venture Capital, Mezzanine Financing is the part of Expansion capital stage.
5. Revolving credit is very much like the overdraft facility provided by banks.
6. Bills of exchange cannot be rediscounted.
7. Sub broker can operate only on behalf of registered FIIs. He cannot deal in securities on his own account as principal.
8. Debit card is also called Electronic Cheque.
9. Home loan is available for purchase of land as well as improvement/extension of house.
10. CRISIL is the leading credit rating agency in the world.

(B) Match the columns (any 8) (8)

SR.NO	Column A	Sr.no	Column B
1	DRT	A	Hundis
2	Underwriters	B	Usance
3	Corporate counseling	C	T-bills
4	Time bills	D	Act of guarantee for sale of shares & debentures
5	Securitisation instrument	E	Fund based
6	Whole sale Debt Market	F	Debt Recovery Tribunal
7	Financial Services	G	Moody's
8	Indigenous bills	H	Fee Based
9	Housing Finance	I	Mobilization of savings
10	Credit Rating Agency	J	Pass through securities
		L	Data response tribunal

Q.2 (A) Explain any 7 draw backs of Forfeiting. (7)

(B)What are financial services? Explain any 6 Fund based financial services. (8)

OR

Q.2 (A) Ruby factors advances Rs. 27 lakhs to Pearl Enterprise against agreement of providing advance payment of 90% of receivables and for guaranteed payment after 3 months. The rate of Interest is 10% compounded quarterly and factoring commission is 2% of receivables. Both collected upfront. (7)

a. Compute amount actually made available to Pearl Enterprise.
b. Calculate effective cost of funds made available to Pearl Enterprise .
c. Assume interest is collected in arrear and commission in advance, what will be the effective rate of interest.

(B)What are the qualities of Merchant bankers (8)

Q.3 (A) What is a Clearing member? Explain its functions and types of Clearing members. (7)

(B)Explain the process of securitization with the help of the diagram . (8)

OR

Q.3 (A) Define Lease. Explain any 6 types of Lease (7)

(B)Explain the issues in Housing Finance Sector (8)

Q.4 (A) Explain the features of Venture Capital (7)

(B)Explain the reasons for growth of Consumer Finance. (8)

OR

Q.4 (A) What is Smart card? Explain 5 features of Smart Cards. (7)

(B)Describe the process of credit rating. (8)

Q.5 (A) Discuss the Stages of venture capital Finance. (7)

(B) The Vibhu Transport Ltd, purchased Truck from, the Hindustan Motors Ltd. on Hire Purchase basis. (8)
The Cash price of the truck was Rs 16,00,000. The amounts were payable as under

- Rs. 5,00,000 on the date of purchase i.e 1st Apr, 2012
- Rs. 4,00,000 on 31st March 2013
- Rs. 4,00,000 on 31st March 2014
- Rs. 4,12,390 on 31st March 2015

The Hindustan Motors Ltd, charged interest at 5% p.a on the unpaid amount on the Diminishing balance each year. It closes its account on 31st March every year.
You are required to prepare Hindustan Motor Ltd A/c and interest A/c in books of Vibhu Ltd. according to credit purchase method.

OR

Q.5 (A) Write a Short notes on (Any Three) (15)

1. Recourse & Non-Recourse Factoring
2. Banker to an Issue.
3. National Housing Bank
4. Option contract
5. Bill Market Scheme ,1970

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Duration: 2 ½ hours **Marks-75**

Note: 1) All questions are compulsory.
2) Working Notes should form part of your answer.
3) Figures to the right indicate full marks.

Q.1. (A) Select the most appropriate alternatives from those given below and rewrite the statements. (Any 8) **(08)**

1. Chairperson of the GST council is _____.
   a) Union minister of state incharge of revenue
   b) Union Finance Minister
   c) One elected person amongst the state finance minister
   d) Minister incharge of finance and taxation
2. Mr. A of Gujarat supplies goods to Mr. X of Delhi, this will classify as
   a) Intra state supply
   b) Inter state supply
   c) Export supply
   d) Deemed supply
3. For banking and financial services, place of supply is _____
   a) Location of recipient in records of supplier
   b) Location of supplier
   c) Location of head office
   d) Either (a) and if (a) is not available then (b)
4. Every electronic commerce operator required to collect tax at source has to furnish a statement in form _____.
   a) GSTR-1
   b) GSTR-5
   c) GSTR-7
   d) GSTR-8
5. Aggregate Turnover includes _____.
   a) Taxable supplies
   b) Inter-state supplies
   c) Export of goods and services
   d) All the above.
6. A non resident person having _____ may take registration as a casual taxable person.
   a) TAN
   b) Adhar number
   c) PAN
   d) Both (a) and (b)
7. The first 2 digits of GSTIN represent _____.
   a) Entity Code
   b) Country Code
   c) State Code
   d) Checksum character
8. _____ is the time of supply of vouchers in respect of services when the supply with respect to the voucher is identifiable.
   a) Date of issue of voucher
   b) Date of redemption of voucher
   c) Earlier of (a) and (b)
   d) (a) and (b) whichever is later
9. Place of supply for services by way of admission to events are _____.
   a) Place where event is actually held
   b) Location of recipient
   c) Location of supplier
   d) None of the above.

10. Place of supply when goods are imported into India is _____.

a) Location of importer
b) Location outside India
c) Location of supplier
d) None of the above

B) Match the following (Any 7 / 10) (07)

Column (A)		Column (B)	
(1)	Petroleum products	(a)	Non Resident taxable person
(2)	GSTR 5	(b)	Person supplying goods wholly exempt from tax
(3)	Reverse Charge basis	(c)	Input tax credit
(4)	Goods exported from India	(d)	UTGST
(5)	Not liable for registration	(e)	Recipient is liable to pay GST
(6)	Compulsory registration	(f)	SGST
(7)	Non banking financial institution	(g)	Location outside India
(8)	Electronic credit ledger	(h)	GST yet to be notified
(9)	Chandigarh	(i)	E-commerce operator
(10)	Pondicherry	(j)	45 days from the date of supply of service.

Q.2 (A). Find the place of supply of goods from the following transactions and give explanation to the answer. (08)

a) Mr. A of Nasik, Maharashtra sells 20 refrigerators to Mr. C of Ahmadabad, Gujarat for delivery at Mr. C's place of business in Ahmadabad.

b) Ekdanta Ltd (Mumbai Maharashtra) gives a contract to Sunshine Ltd (Ranchi, Jharkhand) to assemble a power plant in its Kutch, Gujarat.

c) Mr. Ashwin of Pune places order on Mr. Amod of Mumbai for delivery of certain goods. Mr. Ashwin directs Mr Amod to deliver goods to Mr. Rahul in Indore.

d) Mr. Z purchases coffee and snacks on board at Airjet Mumbai to Delhi flight when the aircraft flying over Gujarat. The food items were loaded into aircraft at Mumbai.

Q.2 (B) Find the time of supply of goods from the following transactions and give explanation to the answer. (07)

1. Determine the time of supply in the following cases where supply involves movement of goods.

Date of Removal	Date of invoice	Date of receipt of payment
01/10/2018	2/10/2018	15/11/2018
5/10/2018	2/10/2018	25/11/2018

2. Determine the time of supply from the following, if there is continuous supply of goods.

Date of invoice	Date of removal	Statement of accounts	Date of receipt of payment
01/12/2018	15/11/2018	5/12/2018	2/12/2018
21/01/2018	18/01/2018	5/01/2018	10/02/2018

OR

Q.2 (P) M/s Radha traders supplied certain goods worth Rs. 5, 25,000(inclusive of GST) and Equipments worth Rs.8, 50,000 (excluding GST) to Geeta works. Compute the value of supply and also GST payable. (08)

Particulars	Goods	Equipments
Commission charges	10,000	15,000
Packing charges	7,000	2,000
Freight	7,000	8,200
Inspection Charges	570	1,350
Designing charges	2270	1350

- M/s Radha traders gave a discount of Rs.20,000 on equipments.
- Taxes other than GST charged separately by M/s Radha traders Rs.12,000 on goods and Rs.21,000 on Equipments
- GST rate applicable on Goods is 5% and Equipments 12%.

Q.2 (Q) Find the time of supply of services from the following transactions and give explanation to the answer. (07)

1. Determine time of supply of services (normal Case)

Sr.no.	Date of provision of service	Date of Invoice	Date of Payment
1	16/09/2018	5/10/2018	6/10/2018
2.	12/10/2018	10/11/2018	12/11/2018

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2. Determine time of supply of services (RCM Case)

Sr.no	Date of invoice	Date of provision of service	Date of entry of Payment in books of accounts	Date of debit in Bank account
1	16/11/2018	26/11/2018	16/01/2019	11/01/2019
2	04/02/2019	03/02/2019	03/04/2019	02/04/2019

Q.3 From the following information for November,2018 calculate the value of taxable and not taxable services assuming that goods and service tax is not included in amounts. (15)

Sr.No	Particulars	Rs.
1	Rent received from Factory building	6,00,000
2	Rent received from Agricultural plot	90,000
3	House is let out to individual for residential purpose	7,00,000
4	Interest earned on loan	5,00,000
5	Sale and purchase of forward contract	10,00,000
6	Coaching to students for IIM exams	8,00,000
7	Development and design of software	1,00,000
8	Express Parcel post services	2,00,000
9	Collection of electricity Bill	1,00,000
10	Implementation of software	5,00,000

OR

Q.3 Mr. Pratik is a new dealer. From the following information find out on which day he will be liable to register under GST, give reason for your answer. (15)

Date	Taxable purchases	Tax free Purchases	Taxable Sales	Tax Free sales
02/04/18	1,00,000	15,000	1,00,000	40,000
04/04/18	-	-	5,00,000	20,000
11/04/18	2,00,000	-	3,00,000	1,00,000
20/04/18	-	-	1,00,000	4,00,000
25/04/18	4,00,000	6,00,000	2,00,000	80,000
02/05/18	-	-	5,00,000	1,50,000
11/05/18	5,000	20,000	1,00,000	3,00,000

Q.4 Ms. Dipti registered in state of Uttar Pradesh provides following details for the month of October. Calculate her net tax liability for the month of October. Closing balance in electronic credit ledger as on 30th September is IGST Rs.2, 00,000, CGST Rs.90,000 and SGST Rs.50,000. (15)

Sold goods @ 28% GST to Jagruti in Uttar Pradesh	10,00,000
Sold goods @ 18% GST to Rushikesh in Punjab	9,70,000
Provided Services @ 5% GST to Akshay in Karnataka	4,25,000
Provided Services @ 12% GST to Akash in west Bengal	8,75,000
Inward supplies @ 5% GST from Uttar Pradesh	7,80,000
Inward supplies @ 18% GST from Telangana	50,000
Inward supplies @ 12% GST from Karnataka	85,000
Inward supplies @ 28% GST from Uttar Pradesh	6,70,000

OR

Q.4 A Calculate aggregate turnover of Mrs. Sneha based on the following information (08)

a) Taxable supplies Rs.4, 48,000 (including GST @ 12%)
b) Exempt Supplies Rs. 85,000.
c) Export of goods Rs.2, 30,000.
d) Inward supplies on which tax is payable under Reverse charge Rs.50,000
e) Inter-state supplies Rs.5,90,000.
f) Intra state supply of goods with Nil rate Rs.8,50,000

Q.4 B Kunal who is a manufacturer in Thane provides the following information. Explain whether Kunal is eligible to opt for composition scheme in financial year. (07)

a) Intra state supplies Rs.12,50,000
b) Intra state supplies GST at nill rate Rs.30,50,000
c) Intra state supplies which are wholly exempt Rs.34, 60,000.
d) Value of inward supplies on which tax is payable under RCM Rs.5, 40,000.

Q.5 A. Explain GST and features of GST (08)

Q.5 B. Explain composite supply and Mixed supply with example. (07)

OR

Q.5 Short Notes (Any 3) (15)

1. Inter and Intra state supply
2. Supply with consideration
3. Definition of Goods and Services under GST
4. Time of supply of goods in case of Voucher.
5. Casual Taxable Person.

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