Roll No. 4500 35/6/35/.....

S-626

January 2018

Master of Business Administration (MBA) Examination

(Full Time) (New) Third Semester

FT-302C : PROJECT MANAGEMENT

Time 3 Hours] (Max Marks 80

Note : Attempt any two questions from Section A and any three questions from Section B.

Section A

1. (a) Discuss the characteristics of a project. Explain its different types.
   (b) Discuss various factors which help in project selection and project evaluation ?
2. (a) Discuss various technological and market potential analysis of a project.
   (b) Discuss determinants of cost of project and factors of project appraisal.
3. (a) Discuss financial feasibility of project (with and without risk). Discuss various cash flows, capital structure and budgetary control of a project.
   (b) Discuss various project managers skills and functions. High light on social cost benefit analysis of a project.
4. Write notes on : (with examples)
   (a) Financial Models of a Project
   (b) Project Life Cycle and its Phases
   (c) CPM and PERT Models
   (d) Project Monitoring and Project Audit.

Section B

5. The following information regarding a new project proposed by ABC Ltd is available :
   Project cost : Rs. 500 crore.
   Fixed debt planned : Rs. 300 crore.
   Rate of interest on loan : 12%.
   Loan repayable in three equal installments of Rs. 100 crore each at the end of 4th, 5th and 6th year.
   PBIT of the project : Rs. 110 crore.
   Corporate tax rate : 30%.
   Depreciation each year : Rs. 50 crore.
   Capital charges each year : Rs. 8 crore.
   Opportunity cost of capital : 15%.
   Calculate the NPV of the project (capital cash flow approach) and suggest whether the project should be accepted or not)
6. Consider ABC Ltd. borrows Rs. 300 crore at 12% p.a. rate of interest repayable in three equal installments of Rs. 100 crore at the end of 4th, 5th and 6th year. The project cost is Rs. 800 crore and it is expected to generate after tax cash flow of Rs. 130 crore for 6 years. Opportunity cost of capital is 15% Tax rate is 30%. Calculate all equity based adjusted present value (APY) of the project. (If APV = All equity NPY + Total value of interest tax shield also, APV = Pure equity NPV + NPV of interest tax-shields – Issue costs).
7. A firm is considering three mutually exclusive projects A, B and C. Basis information is as follows :
   Cost of Capital = 16%
   Risk free rate of Return = 12%
   Tax rate = 45%
   Cash flows and risk index are estimated as follows :

	Project A	Project B	Project C
Initial cash outlay	25	30	35
Cash inflow year 1	10	14	10
Cash inflow year 2	10	10	12
Cash inflow year 3	10	8	15
Cash inflow year 4	10	6	18
Risk index	1.5	1.0	0.5

Calculate risk adjusted NPV for each project using risk adjusted discount rate method. Which project should be selected away A, B and C ?

8. From the following data :

Activity	Preceding Activity	Time (weeks)		Cost (Rs.)	
		Normal	Crash	Normal	Crash
A	None	3	2	18,000	19,000
B	None	8	6	600	1,000
C	B	6	4	10,000	12,000
D	B	5	2	4,000	10,000
E	A	13	10	3,000	9,000
F	A	4	4	15,000	15,000
G	F	2	1	1,200	1,400
H	C, E, G	6	4	3,500	4,500
I	F	2	1	7,000	8,000

Calculate and find :

(a) Draw a project network diagram and find critical path.

(b) If dead line of 17 weeks is imposed of completion of project, what activities will be crashed, what would be the additional costs and what would be the critical activities of the network after crashing?

9. From the following data :

Activity	Immediate Predessor	Expected Durations (days)		
		T_0	T_m	T_p
A	–	10	12	14
B	A	14	15	17
C	B	2	3	4
D	C	4	6	8
E	C	10	12	14
F	E	20	25	27
G	C	10	17	20
H	F	5	6	7
I	D	7	12	14
J	H, I	14	17	20
K	C	1	2	3
L	K	10	15	20
M	L	3	5	7
N	M, J	13	15	17
O	N	20	21	22
P	O	7	9	14
Q	P	2	3	4
R	Q	2	2	2
S	P	7	10	13
T	S	5	7	9
U	T, R, G	4	8	12

(a) Draw project network diagram.

(b) Find expected project completion time and project variance.

(c) Determine the probability of completing the project in 165 days.