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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination December 2019

Program/course: MBA PSM
Subject: PORT PLANNING
Code : TRPS 8001
No. of page/s: 2

Semester – III
Max. Marks : 100
Duration: 3 Hrs.

(Short and brief – ‘to-the point’- answers fetch better marks)

Q1. Please answer all questions (each carries two marks) Marks 20

Question number	Question details	CO
1	Define a “channel” in a port.	
2	In Mumbai Port – dredging is extremely difficult – why?	CO 3
3	In a PPP – Port project, why do we need to take consideration of ‘minimum guaranteed throughput’?	CO 3
4	What can a VTMS do?	CO 2
5	What is MCA in PPP?	CO 1
6	Define a “bore tide”.	CO 1
7	What is ‘air draft’ critical to port planning?	CO 2
8	Can a berth level port planning be completed without ‘Bollards & bull rings’? Why?	CO 2
9	List two best natural harbors in India (in ports).	CO 1
10	Write full form of OISD	CO 1

Q2. Please answer 4 questions out of 5 questions (each carries 5 mark): Marks 20

2a	Considering the use of the Mobile Harbour Cranes in different type of work in a port – how would you estimate the capacity and size of such cranes where break bulk cargo plus project cargo is handled.	CO 3
2b	Comment on the process of reviewing revenue & project cost ‘a number of times’ (iteration) to get the best option?	CO 4
2c	Discuss the need for circulation of traffic in a port where feeder vessel is handled and also large multi-purpose vessels are worked.	CO 2
2d	Port connectivity in India is an essential part of port planning, both for private and government ports – critically examine with one example.	CO 4
2e	Draft a proposal to the CEO of the port as to how you can switch from manual to mechanical / semi-automatic mode of handling of large sized pipes of different diameter (between 24’’ to 56’’) and lengths around 50-60 feet.	CO 3

Note: From the following questions (3/4/5/6) please answer **any three**. **10 Marks has been allotted against each question – thus total 30 marks.**

Q 3	Yard planning for a container terminal is quite tricky. Discuss 5 different parameters that can kill the port and alternatively give huge capacity to scale up.	CO 3
Q 4	Critically examine the usage of different kinds of dredgers in Indian Ports.	CO 3
Q 5	Explain the commonly used methods of demand forecasting for port traffic?	CO 2
Q 6	Many of the major ports are suffering for the inverse model of port planning – examine the repercussions and also mention how some of the fastest growing ports have developed with a reversal of the past planning process.	CO 4

Compulsory question:

Q7. Draw a proper layout of a Terminal with two container handling berths at present and with the scope of enhancing this to four.

There must be a line drawing – with rough size indications (e.g. length / breadth of the quay-line and also the yards + the ancillary facilities like internal roads etc.)

Identify (**very specifically**) what facilities and area should be allocated for a regular traffic of 0.5 million TEU-s in a year.

The draft of the port varies between 13-15 meters and no dredging plan is there for next 4 years.

Show the calculation of area and apron size so that proper productivity (say 30 TEU-s/ hour) can be achieved.

Estimate number of trailers and RMQC and RTG to be allocated.

Marks: 30

