

 (Common to Civil Engineering, Electrical & Electronic Engineering, Mechanical Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Chemical Engineering, Electronics & Instrumentation Engineering, Bio-Medical Engineering, Information Technology, Electronics & Control Engineering, Mechatronics, Computer Science & Systems Engineering, Electronics & Telematics, Metallurgy & Material Technology, Electronics & Computer Engineering, Production Engineering, Aeronautical Engineering, Instrumentation & Control Engineering, Bio-Technology and Automobile Engineering)
Time: 3 hours

Answer any FIVE Questions All Questions carry equal marks

- 1. When he was only six years old, Kalam witnessed the tragedy of a severe cyclonic storm. Only a few years ago, India, and the Asian region, suffered the devastating effects of a tsunami. As a young citizen of India, what would you envisage your role to be during a natural/ national calamity? Write an essay in about 1000 words describing the role of India's youth during a natural calamity. Would you rather be a 'watcher' or a 'worker'? [16]
- 2. Answer the following:
 - (a) The bitter lessons learnt by India from the China War in 1962 and the Pakistan War in 1965.
 - (b) Narayanan's enthusiasm in developing the rocket-assisted take-off system (RATO).

[8+8]

- 3. Answer the following:
 - (a) Which event in February 1969 brought great satisfaction to Kalam and his team?
 - (b) Why did Prof. Sarabhai select Sriharikota Island? What was the purpose it was meant to serve?
 - (c) Why is the year 1968 significant to INCOSPAR and ISRO? What were the developments that happened during that year?
 - (d) What was Prof. Sarabhai's dream project? Who did he choose to be a project leader? [4+4+4+4]
- 4. Answer the following:
 - (a) How can flow of water prove destructive as well as constructive in function?
 - (b) What are the principal factors causing soil erosion? Discuss.
 - (c) Discuss the menace of soil erosion with regard to agriculture. [4+8+4]

Set No. 1

- 5. Explain the presentation made by Kalam to the Government. [16]
- 6. (a) How did the press show its dissatisfaction over the failure of Agni?
 - (b) What did Kalam speak to the DRDL RCI Community?
 - (c) Why was the launching of Agni fail the third time?
 - (d) What were Kalam's thoughts, the night before 22 May 1989? $[4 \times 4 = 16]$

7. (a) Read the Poem and answer the questions given below:

Freezing weather still holds sway, Enduring growing hours of light But the cold must fade away Restoring spring, like day from night Until at last the world is warm At least next month, at least by then Remember through each bitter storm You'll finally see the flowers again.

- i. What do you think the title of this poem is (its hidden in the poem)?
- ii. What time of year do you think the poet prefers? why?
- iii. "Enduring growing hours of light." What does this line refer to?
- iv. "Like day from night." If "day" represents spring, what does "night" represent?
- v. See if you can write a poem with the title or topic spelled out in a similar manner.
- (b) Read the Poem and answer the questions given below:

Did I Ever Stop?

Did I ever stop to make you smile When your day was hard or your road was long? When your light stopped shining for a while, Did I sing for you a happy song?

Did I ever try to make you laugh When your eyes held tears and you couldn't speak? When your world seemed almost torn in half, Did I hold your hand or kiss your cheek?

Did I ever pause to hear your voice When you needed just a moments ear? When you'd lost your way or missed a choice, Did I let you know that I was near?

Did I ever stop to say I care When I didn't seek to heat it too?

Set No. 1

When you weren't so sure that I'd be there, Did I ever show my love for you ?

For Discussion : The same poem can have different meanings to different readers

- i. When you read or listen to this poem, who do you think the author is addressing?
- ii. In your own words, what is this poem about?
- iii. Does the poem make you think of any experience from your own life?

[5+5+6]

8. Use the base words in the chart below to make adjectives with the suffixes -ful and -less.

Base word	Adjectives	
Translation	Positive	Negative
	meaning	meaning
beauty	(1)	X
brain	Х	brainless
care	careful	(2)
charm	Х	charmless
end	Х	$endless^*$
event	(3)	Х
faith	(4)	faithless
harm	harmless	(5)
help	helpful	helpless
home	Х	(6)
hope	(7)	(8)
pain	(9)	(10)
peace	peaceful	Х
penny	Х	(11)
power	(12)	powerless
sleep	Х	$sleepless^*$
taste	tasteful	(13)
thought	thoughtful	(14)

Set No. 1

* these adjectives could also be used with a positive meaning. [16]



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Time: 3 hours

Answer any FIVE Questions All Questions carry equal marks

- 1. Answer the following:
 - (a) What was the theory held of the world long ago? What does the author have to say of this theory?
 - (b) What were the two arguments forwarded by the great philosopher Aristotle in his book "On the Heavens"? Elaborate.
 - (c) What was Ptolemy's theory and how does it colloborate with Aristotle's version? [4+8+4]
- 2. Write short notes on
 - (a) Work at INCOSPAR
 - (b) The significance of the Educational Rocket Launching station at Thumba.
 - (c) The site selected for the Launching station and the process of acquisition.
 - (d) The family's reaction to Kalam's proposed visit to NASA for training. [4+4+4+4]
- 3. Answer in detail:
 - (a) What is a satellite launch vehicle? Describe it with Dr. Kalam's illustration using the human body.
 - (b) "Beautiful hands are those that do work that is earnest and brave and true, moment by moment the long day through". Drawing on your knowledge of Abdul Kalam's life and success, discuss how the above poetic lines prove true in his case. Illustrate using examples. [8+8]
- 4. "'Flow' is an overwhelming and joyous experience while working it is a sensation we experience with total involvement." Explain how you experienced this 'flow' in some aspect of your life - in sports, education, etc., and state how total involvement and joyous commitment are essential to make a professional successful, happy and satisfied. Supply suitable examples. [16]

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Set No. 2
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- 5. (a) Whose death was a great emotional loss to Kalam?
 - (b) How did Kalam use the Devil missile?
 - (c) How did then Prime Minister Indira Gandhi encourage Kalam?
 - (d) Explain Indira Gandhi's visit to DRDL? $[4 \times 4]$
- 6. Write in detail about India's achievement of the status of having a third generation anti-tank missile system. [16]
- 7. Write informal letter on the following:
 - (a) To your foreign friend describing the attractions of your city.
 - (b) Congratulate your friend who has won the top rank in the IAS examination.

[8+8]

- 8. (a) Fill in the blanks with either "a", "an", or "the" I went to
 - i. _____ airport at 6.00 AM Yesterday. I had to catch
 - ii. _____ flight to paris. The lines at
 - iii. _____ airport were very long, So I had to wait
 - iv. _____ long time. Once
 - v. _____ plane took off, I tried to get some sleep but I couldn't. Then I ate
 - vi. _____ pretty good meal,
 - vii. _____ rate occurrence on airplanes, Late, I spoke to one of
 - viii. _____ flight attendants for
 - ix. _____ while. She was pretty. She told me that
 - x. _____ pilot of
 - xi. _____ airplane was French. I managed to fall asleep for about
 - xii. _____ hour. After I woke up, I felt refreshed. I ordered
 - xiii. _____ drink, then another. Generally, it was
 - xiv. _____ pretty smooth flight.
 - (b) For each of the following sentences,
 - Fill in the blank with either "a", "a", "the" or "no article"
 - i. _____Chinese is a difficult language to learn
 - ii. _____General's army attacked the city at night. [14+2]

Set No. 3

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Time: 3 hours

Answer any FIVE Questions All Questions carry equal marks

- 1. Write brief notes on the following:
 - (a) Abdul Kalam's family background
 - (b) His childhood days
 - (c) The cultural and religious mileu of Rameshwaram
 - (d) Jainulabdeen's (Kalam's father) influence on his son's spiritual life. $[4 \times 4]$
- 2. Answer the following:
 - (a) What was the reason for the meeting between Prof. Sarabhai, Captain V.S. Narayanan and Abdul Kalam in New Delhi?
 - (b) Discuss the details of the ten year plan for space research prepared by Prof. Sarabhai.
 - (c) Why does Kalam believe that project managers should learn to live with uncertainty? How do you think this will help one to win? [5+5+6]
- 3. Answer the following:
 - (a) What does Kalam have to say about the 'hands on', 'hands of f' approach of project leaders?
 - (b) How did becoming project leader of SLV 3 affect Dr. Kalam's time? What were the time management skills he employed to prioritize and organize his work?
 - (c) What were the components required to build SLV 3 and how long would it take to build it? [4+8+4]
- 4. Answer the following:
 - (a) Who is Wernher von Braun? What is his contribution towards missile development and rocketry?

[16]

[16]

- (b) The significance of the V-2 missile.
- (c) Why was Kalam struck by the personality of Wernher von Braun, 'the father of modern rocketry'?
- (d) What was Mr. Von Braun's opinion of America? [4+4+4+4]
- 5. Write in detail about Kalpana's finest achievement.
- 6. (a) What did Kalam do when there was a lack of empowerment in 1983?
 - (b) What do you know about The Technology Management Philosphy?
 - (c) What did Kalam try to make the IGMDP do? How far was it possible?
 - (d) What is Kalam's advice to the youth of today? $[4 \times 4 = 16]$

7. Write informal letter on the following:

- (a) Write a letter to your friend about a famous cultural festival conducted in your place.
- (b) To your pen friend about the marriage rituals of your religion. [8+8]

8. Give one word substitutes for the following :

- (a) a person who is selfish, self absorbed and self-centered _____
- (b) inscription on a tombstone _____
- (c) one who believes in the philosophical doctrine of fatalism _____
- (d) people of noble families or the highest social class. Also, government of a country by a small group of people, especially hereditary nobility. _____
- (e) a person who does not believe in God or deities _____
- (f) a land animal that breeds in water _____
- (g) an expression or statement that has more than one meaning _____
- (h) an account of somebody's life written by that person _____
- (i) an account of somebody's life written by that person _____
- (j) somebody who eats human flesh _____
- (k) somebody who works or serves only for personal profit. Also, a professional solider paid to fight for an army other than that of his or her country _____
- (l) a person who hates women _____
- (m) a person who does not believe in the institution of marriage _____
- (n) a drug or other substance that induces sleep _____
- (o) a person who knows everything _____
- (p) an animal or a human being that eats any kind of food _____

Set No. 4

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Time: 3 hours

Answer any FIVE Questions All Questions carry equal marks

- 1. Answer briefly:
 - (a) Discuss Jainulabdeen's philosophy on prayer.
 - (b) Who is a special helper? How can he help those in distress?
 - (c) 'Happiness and peace of mind come to us from within and not from outside'
 - i. Narrate how Kalam's father put this philosophy into practice during a time of crisis
 - ii. Express your opinion of the above statement and elucidate with examples from personal experience, if any. [4+4+8]
- 2. (a) Narrate through an instance how V.K. Menon displayed his faith in Kalam's work.
 - (b) What did Kalam learn from the setback to the Hovercraft project?
 - (c) "There are boundaries that dictate life. You can only lift so much weight... you can only go so far!" Dr. Kalam experienced this when the hovercraft project had to be shelved. Discuss how you would react to the boundaries that govern your life and how you would proceed to achieve your goals without giving up. [4+4+8]

3. Answer briefly:

- (a) When did the customer come for the framed photograph? What was the due date fixed by the customer?
- (b) Describe what happened to the photograph when Datta began working on it.
- (c) What was the fate of the photograph? How did Datta attempt to rescue it?
- (d) Describe Datta's reaction to the sad fate of the photograph. [4+4+4+4]
- 4. Answer Briefly:

Set No. 4

	(a)	Why did Dr. Kalam feel left out at the next SLV-3 flight in 1981? What was the bitter truth he had to face?
	(b)	Why was Kalam invited to DEAL in Dehradun? Why was he interested in nuclear scientist Prof. Raja Ramanna's speech?
	(c)	Why was Kalam invited to meet Prof. Ramanna? What was his opinion of Prof. Ramanna's personality?
	(d)	What was Kalam's response to Prof. Ramanna's invitation to join DRDL? What was the decision he made? $[4+4+4+4]$
5.	(a)	Write a short note on Kalpana's married life.
	(b)	What is Miriams reminiscence about kalpana?
	(c)	How did Kalpana become an astronaut ?
	(d)	Write about Kalpana's achievements in her dancing school. $[4 \times 4]$
6.	(a)	Why was Delia proud at the end of the week?
	(b)	Write a short note on Clementina.
	(c)	Draw a sketch of the man from Peoria as described by Joe.
	(d)	How did Delia's right hand get hurt? $[4 \times 4 = 16]$
7.	(a)	A rainy day
	(b)	Grinding stone futures mo mosses. [8+8]
8.	(a)	Prepositions (on, at in) For each sentence, fill in the blank with either on, at or in
		i. Howard was late again - He never comes time
		ii. I have a lot of things to do work today
		iii. We bought these clothes sale
		iv. What did you learn class today ?
		v. Hey didn't I see you the Killers concert ? vi. Children Dont play the street, It's dangerous
		vii. The most expensive stores are locatedfifth Avenue
		viii. If someone is always busily moving around, you can say they're the go"
	(b)	Prepositions (on, at in Part - 2)
		For each sentences, fill in the blank with either on, at, or in
		i. I didn't like Tom when I met him, buttime we became friends.
		ii. Do it right away = Do it once
		iii. We bought these clothes saleiv. There are lots of handsome men the navy
		v. Hey didn't I see youJulie's party. What's your name?
		vi. I usually don't work weekends

vii. I know you're my friend, but _____ times you behave like you weren't. viii. She has everything under control = She is _____ top of things. [8+8]