

EDUCATION PLUS

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A. Joseph Dorairaj

Great teachers are not born, but made. The process is long and arduous but the outcome is rewarding. What goes into the making of an exceptional teacher? What are the hallmarks of a great teacher?

Self-reflection: Great teachers constantly reflect on their profession and their academic pursuits. They frequently ask themselves: Did my students learn anything today? Is there anything I could have done better? Was my pedagogic strategy appropriate and fruitful? Did I complete the tasks that I had planned? Did I collect my students' feedback and analyse it? This introspection and self-reflection enables them to look back and forward and become better teachers. A teacher who does not introspect on his/her everyday academic pursuits lacks the propensity to go forward.

Multidisciplinary: Such teachers are multidisciplinary and impart a holistic education. While grounded in their

They are life-long learners. They ensure that the curricula of their respective disciplines is updated periodically so that their students are conversant with the latest developments.

Defining 10 characteristics of outstanding educators

own respective disciplines, they are acutely conscious that knowledge is whole and, therefore, undertake inter- and multidisciplinary projects. Apart from focusing on cognitive development, their goal is to transform their students into well-rounded individuals who will be connected to the transcendent, their fellow human beings and the ecosystem.

Research oriented: They are research-oriented and try to address real academic problems.

They convert academic issues into research problems and try to 'solve' them in a relatively short span of time. They collect data, both quantitative and qualitative, to 'test' their research hypotheses. The fact that practising teachers strive to find answers to classroom issues through action research projects is to be welcomed.

Experimental: Great teachers take risks in their academic ventures. They do not shy away from trying out different methodologies to teach a



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particular concept or theory or text. They experiment with new methods, even if these do not always bear fruit. While most teachers shun innovation for fear of failure, outstanding teachers are willing to 'take the road less travelled by', despite potential threats and failures.

Use technology: All great teachers are conversant with technology. Post-COVID, the use of technology for academic purposes, especially teaching-learning, has come down. But good

teachers ensure that technology assists and complements their teaching. They encourage their students to sign up for MOOCs and use online resources for their academic enrichment. Such teachers constantly update themselves with the latest in technology.

Interactive: They are community-oriented in the sense that they share their stories – successes as well as failures – with their colleagues. They draw inspiration with regard to pedagogy and classroom management

from their peers and, in turn, offer suggestions, especially with regard to successful strategies. This makes staff rooms vibrant spaces for informal interactive sessions.

Encourage students: Exceptional teachers believe in the efficacy of student-talk. In a typical classroom, teachers are obsessed with 'covering' the syllabus and refuse to devote time to students' interaction. But outstanding teachers know that students' interaction should be given time and space and encourage stu-

dents to not only ask questions but also have a questioning mind. Great teachers catalyse interactions.

Socially committed: Such teachers have a strong social commitment. They do not get lost in esoteric research projects that do not have any connection to ground realities. They are conscious of their responsibility to protect the fragile ecosystem and reach out to the disadvantaged sections through education. They instill in their students a

concern for the environment and the marginalised, and encourage them to get involved in transformative extension and outreach activities with the dream of creating an equitable world.

Constant learning: They are life-long learners. They constantly update themselves through Faculty Development Programmes (FDPs). They ensure that the curricula of their respective disciplines is updated periodically so that their students are conversant with the latest developments. They prepare their students to face the future confidently by initiating them into the culture of 'learning to learn'.

Improvisation: Great teachers, like all good professionals, think on their feet. When they enter a classroom, they are prepared to adjust their teaching strategies and classroom management.

This improvisation enables them to face any situation, however unexpected and challenging. In fact, thinking on one's feet is a vital skill in today's fast-changing world.

Great teachers constantly reinvent themselves so that they are prepared to address fresh challenges. They revitalise themselves every day so that they remain vibrant and relevant.

The writer is a Professor of English, Gandhigram Rural Institute Deemed-to-be University. Email: josephdorairaj@gmail.com

SCHOLARSHIPS

Vardhman Foundation Shakun Oswal Scholarship

Eligibility: Students in any year of diploma or ITI courses who have secured at least 50% marks in Class 10 and/or Class 12 board exam. Annual family income must be less than or equal to ₹6 lakhs.

Rewards: ₹20,000

Application: Online

Deadline: April 20 www.b4s.in/edge/SOSP1

Goonj Setu Fellowship

Eligibility: Open to those between 21 and 30 years as on July 31, 2024 and have graduated from a recognised institution by the same date. Basic understanding of English or Hindi and proficiency in Microsoft Office and other relevant computer tools are required.

Rewards: Between ₹20,000 and ₹22,000 per month depending on the city.

Application: Online

Deadline: April 22 www.b4s.in/edge/GGSF1

D. K. Bhave Scholarship

Eligibility: Open to graduates of the Engineering Faculty of Savitribai Phule Pune University, or final-year B.E. or B.Tech. students in any branch of an NBA-accredited institute who have secured merit-based admission for a Master's in Engineering and Technology at an accredited university

in the U.S., Canada, Germany, or England. Applicants must maintain a minimum academic record/performance of Grade B or higher.

Rewards: 50% of the total cost a year

Application: Online

Deadline: May 11 www.b4s.in/edge/DKBS1

Courtesy: Buddy4study.com



Integrating Personal Safety Education (PSE) into the curriculum is essential to keep children and adolescents safe

FREEPIK

Catalyst for change

Pooja Taparia
Achama Mathew

The true character of a society is revealed in how it treats its children. Nelson Mandela

There has been an increase in the reported cases of Child Sexual Abuse (CSA), according to the National Crime Record Bureau (NCRB). Between 2014 and 2022, the number rose by over 80%, which may reflect a positive shift towards a greater willingness to report, rather than a definitive rise in actual cases. The NCRB report for 2022 marks an 8.7% increase from the previous year with a total of 1,62,449 crimes against children being reported. Kidnapping and abduction constitute 45.7%, while crimes under the Protection of Children from Sexual Offences Act (POCSO Act) 2012, including child rape, account for 39.7%.

Integration
Despite the existence of the POCSO Act, proactive prevention strategies such as integrating Personal Safety Education (PSE) in

school curricula, as outlined in the National Education Policy (NEP) 2020, can empower children and adolescents with the knowledge and skills to prevent and fight CSA. The urgency of this integration cannot be overstated, as it empowers both children and adults against the menace of CSA and is essential to create a safe environment.

The programme adopts a multifaceted approach in educating children to recognise and respond to abuse. It collaborates with adult caregivers, including school management and parents, creating a safe environment and providing a safe space for disclosure. Additionally, early detection and intervention are essential to address the long-term impacts of CSA on mental health and educational outcomes.

Central to the PSE Programme is the concept of empowerment and consent. Children are taught that their bodies are their own, and that they have the right to set boundaries, thereby fostering healthy relationships and empowering them to advocate for their safety. Tailored to

India's socio-cultural dynamics, integrating PSE into various subjects equips students to navigate real-life unsafe situations confidently.

Addressing societal norms and cultural stigmas around CSA is crucial to break through comprehensive education. PSE interrupts the silence linked to factors such as family honour by fostering open conversations, providing a safe space for disclosure, and encouraging them to speak up about any uncomfortable or unsafe situations they may encounter. This open channel of communication is crucial for early intervention and support.

Collaborative efforts with tech leaders and parental involvement are also vital for online safety. PSE equips parents and caregivers to guide children through their digital journey, make safe choices, introduce age-appropriate technology, foster open communication and trust, enabling children to comfortably discuss any unsafe online experiences. This proactive engagement establishes a norm where

children feel empowered to handle adverse situations confidently.

Strategies
Policy development: Clear national policies mandating PSE integration ensure consistent implementation, safeguarding children's well-being. The National Curriculum Framework (NCF) 2023 emphasises life skill-based education for abuse prevention, calling for attention from teachers and parents.

Teacher training: Comprehensive training to teachers on sexual abuse awareness, safety and communication through workshops, seminars, and professional development courses, can equip educators to facilitate meaningful discussions on personal safety and empower students to make informed decisions regarding their well-being.

Resource development: Age-appropriate, and culturally sensitive resources, including textbooks and digital platforms can help embed PSE concepts into various subjects. Educators can reinforce key messages and skills while providing students with opportunities to apply their learning in different contexts.

Collaboration: Engaging relevant stakeholders such as educators, administrators, parents, and community organisations ensures a coordinated approach. This fosters ownership, accountability, and sustainability, ultimately benefiting students and communities across the nation.

We need to stand together pooling our collective efforts to ensure the safety and well-being of our children, paving the way for a future where every child flourishes in an environment defined by safety, empowerment, and limitless possibilities.

Pooja Taparia is founder and Chief Executive, Arpan. Achama Mathew is Chief Education Officer, Bombay Cambridge Gurukul (BCG) Schools.



OFF THE EDGE
Nandini Raman
My daughter is in Class 12 (Science stream with Biology). She wishes to do a course in Biology and Chemistry. What are her options? Jani

Dear Jani,
A B.Sc. in Biology, Biochemistry, Biotechnology, Microbiology, Genetics, Zoology, Botany, Environmental Science, Nutrition and Dietetics, Forensic Science, Nursing, Bachelor of Pharmacy (B.Pharm), Bachelor of Dental Surgery (BDS), and Bachelor's in alternative medicine are some of her options.

Before she makes a final decision, let her consider her interests, career goals, and preferred area of study within the realm of Biology and Chemistry. Additionally, she can seek guidance from a career counsellor who can help her decide.

I am in the second year of B.A. (NEP) with Geography and English as majors. I would like to pursue a career in Geography-related fields. Saniya

Dear Saniya,
After completing your degree, explore specialisations in different

Assess your interests

Uncertain about your career options? Low on self-confidence? This column may help

branches of Geography such as physical geography, human geography, Geographic Information Systems (GIS), and environmental geography.

Identify the areas you are interested in. Go in for internships or practical experience opportunities to gain hands-on experience in real-world settings. You could also consider a Master's in Geography or a GIS Certification.

Career paths include Urban Planning, Environmental Consultant, Geographic Information Systems (GIS) Analyst, Cartography, Geospatial Data Scientist, Natural Resource Manager and Remote Sensing Specialist.

Work on developing your technical skills and stay updated on advances and trends in Geography by reading academic journals, attending conferences, and participating in online courses. Try and join professional organisations in your region to network.

Create a professional LinkedIn profile and engage with professionals to stay informed. Seek guidance from your academic advisors or a career counsellor for

further advice.

I finished B.Tech. Mechanical Engineering in 2021 and started preparing for the UPSC exams. Even after three years, I have not cleared the Prelims. My family is optimistic but I am worried about my future. What other jobs can I look for? Johnson

Dear Johnson,
While you continue working for the UPSC, explore alternative career options that align with your background in Mechanical Engineering such as Technical Consultant/Advisor, Project Manager (Engineering Projects), Quality Assurance Engineer, Research and Development Engineer, Production Manager, Sales Engineer, Energy Analyst/Consultant, Supply Chain Analyst, Technical Writer, Teaching/Training, Government Jobs in Technical Departments, Manufacturing Engineer, Technical Support Engineer, Automotive Engineer.

Assess your interests, skills, and long-term goals when considering these options. Get a career profiling to guide you based on your specific situation

and aspirations.

I am a second-year M.A. Sociology student and have qualified for the NET exam. What jobs can I pursue immediately? Lakshmi

Dear Lakshmi,
Congratulations! You have various opportunities in academia, research, and related fields. You could apply for teaching positions as an Assistant Professor/Lecturer in universities, colleges, or educational institutions; be a research assistant and contribute to scholarly publications; become a Junior Research Fellow (JRF) and apply for research projects funded by various government agencies; be a content developer; explore Data Analysis or Research Analysis; become a policy analyst, market researcher, social media analyst, Human Resources (HR) specialist, a corporate social responsibility (CSR) manager or apply for government jobs. You can also be a freelance consultant or get into career counselling.

Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge

SAVE THE DATE

British Council GREAT Scholarships

The Faculty of Engineering at the University of Strathclyde, Glasgow, the U.K., in partnership with the British Council and the GREAT Britain Campaign, is offering one scholarship to students from either India, Malaysia or Thailand applying one-year M.Sc. in an engineering programme.

Deadline: May 3

Eligibility: A 2:1 (or equivalent) in their undergraduate degree and have an offer for a postgraduate course for September 2024 intake. <https://bitly.ws/3hjRb>

Prodigy Finance Annual Scholarship

Prodigy Finance has launched its scholarship programme to help students pursuing higher education abroad.

Eligibility: Students who are 18 years old and older, have the legal right to be a resident and study in one of the Prodigy-supported host countries, must be enrolled in or been accepted to start a programme in the 2024-25 academic year at an academic institution supported by Prodigy

Finance and be willing to share their story in public. **Deadline:** April 30 <https://prodigyfinance.com/scholarships/>

MAT 2.0

The All India Management Association (AIMA)'s Management Aptitude Test (MAT), will conduct the MAT 2.0 on May 19, 24 and 31 (Internet-based), May 26 (computer-based), June 2 (paper-based).

Eligibility: Graduates in any discipline
Last dates: May 16, May 21 and May 28 (Internet-based), May 19 (computer-based), May 28 (paper-based). <https://mat.aima.in/>

Nahla Nainar
nahla.nainar@thehindu.co.in

It is election year in India; a time for appraisal reports on how our leaders have performed in office. There's no dearth of information on the next batch of aspiring political personalities and the parties they belong to, but do we really understand anything beyond the din of canvassing and existing realpolitik?

Perhaps it would help to revisit the theory behind the practicals, say Khyati Pathak, Anupam Manur and Pranay Kotasthane, the trio behind *We, the Citizens: Strengthening the Indian Republic*, a graphic explainer about abstract political policy concepts that they feel the Indian public needs to know in order to make informed choices.

The creative collaboration came about after Khyati, an IT consultant-turned-artist, completed her Graduate Certificate in Public Policy (GCPP) at the Takshashila Institution, Bengaluru, where Anupam and Pranay teach. She sent them a five-page cartoon summary of the course. "We were blown away, and saw the possibility of a collaboration to attempt a unique book to simplify public policy for beginners. A writer-cartoonist, a public

A graphic explainer, *We, the Citizens: Strengthening the Indian Republic*, breaks down abstract political policy concepts in a relatable manner



policy researcher, and an Economics professor is a combination hard to come by! What we share is a desire to contribute towards creating civic discourse. Comic books provide an approachable introduction

to a subject," says Pranay. Currently serving as the deputy director at Takshashila Institution, he has co-authored the best-sellers *Missing in Action: Why You Should Care About Public Policy* and *When the*

Chips are Down: A Deep Dive into a Global Crisis. He co-writes *Anticipating the Unintended*, a newsletter on public policy ideas, and co-hosts *Puliyabaazi*, a popular Hindi-Urdu podcast on politics, policy and

technology, with Khyati and tech entrepreneur Saurabh Chandra.

Serious and comic
Though the subject is serious, humour is inserted throughout the text. For in-



(From left) Anupam Manur, Khyati Pathak, Pranay Kotasthane. SPECIAL ARRANGEMENT

stance, readers are cautioned about the administration's overarching ambition to act like Rajinikanth in trying to address issues. One policy to meet many objectives is likened to the Tamil superstar's movie trick of splitting one bullet to deal with two villains. "This approach may work in movies but, in reality, we often end up with a policy that fulfils none of the intended objectives," say the writers in the chapter 'There is Just One Rajinikanth'!

"Despite being a vibrant democracy, India lacks an informed debate around some of the most fundamental issues that affect our daily lives. Politics is often centred around personalities and rhetoric. *We, the Citizens* is a pathway

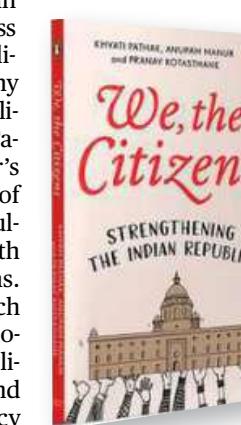
for those who want to be engaged citizens," says Anupam, assistant professor of Economics at Takshashila Institution, and editor of *Indian Public Policy Review*.

Engaging attention
The book makes an effort to present complicated ideas pictorially without being boring. Khyati, whose artwork has featured in children's magazines *Pluto* and *Cycle*, and on comics platform *Bakarmax*, says the minimalistic style is key. "In the book, three main characters who represent common citizens are in dialogue with each other. The words and panels go hand in hand; often, a simple sentence is elaborated in the illus-

tration," she says. "We chose examples steeped in the Indian context to make it feel relatable to people from different backgrounds."

In a year when India goes to vote, the increasing popularity of Public Policy courses shows that people want to look past the propaganda and understand the issues at play, says Anupam. "Although *We, the Citizens* was conceived as a book for beginners, readers with different levels of knowledge about politics and public policy will be able to read and enjoy it. We wrote this book with immense hope for the future of India, tempered only by the realisation that progress cannot happen overnight. Transforming India requires patience and commitment from an engaged citizenry," he says.

We, the Citizens: Strengthening the Indian Republic; Khyati Pathak, Anupam Manur and Pranay Kotasthane, Penguin, ₹400.



Chemical chronicles

The evolving landscape of Chemical Sciences offers diverse paths that go beyond academic research and industrial positions



LaTrease Garrison

Chemistry plays a significant role in our daily lives and offers promising and diverse career opportunities with growth trajectories. Chemistry is truly the central science: it integrates seamlessly with Biology, Physics, Environmental Studies, and Materials Science, offering as many interdisciplinary paths as students can imagine. The advances and evolution in scientific disciplines have significantly contributed to various industries, making the chemical sciences a robust and dynamic field with vast job prospects.

India has emerged as a hub of research in the Chemical Sciences, pharma industry, contract research and development of next-generation materials for a variety of applications ranging from medical diagnostics, energy, manufacturing and others. Universities across the country offer a spectrum of programmes: Bachelor's, Master's, and Doctoral in Chemistry, Chemical Engineering, Biochemistry, and related fields. Specialised certifications in analytical techniques, process optimisation, and regulatory compliance help further enhance skill sets and employability.

Vast opportunities
A Bachelor's degree provides foundational knowledge, while higher education or research-focused programmes deepen ex-

pertise. Involvement in internships, research projects, or collaborations nurture practical skills and industry exposure, boosting career prospects. Adaptability and a readiness to acquire new skills are crucial as the field evolves, aligning academia with industry needs and the evolving job market shaped by AI's integration.

A multidisciplinary approach in scientific research and innovation fosters an environment conducive to Chemical Sciences and offers a wealth of career options. The pathways span research and development in pharmaceuticals, agrochemicals, biotechnology, materials science, nanotechnology, and environmental conservation. Starting as research associates, scientists, or analysts, individuals progress into managerial roles or academic positions as they gain expertise.

The field of Chemical Sciences has further broadened its horizons, extending beyond traditional academia and industry. Opportunities in science policy, think tanks, science communication, and entrepreneurship have emerged, expanding options. The area of scientific publishing has emerged as a new space for chemistry graduates. Many publishers have set up operations in India to support the scientific community in the peer-review process, production of journals, and global

promotional activities.

The integration of Artificial Intelligence (AI) within the Chemical Sciences represents a transformational shift in career possibilities. AI's role in automating research processes, drug discovery, and data analysis is reshaping the field, presenting new opportunities and challenges.

New innovations in Chemistry, such as developing a new compound or catalyst or a new material for diagnostic purposes are becoming increasingly common, but this Intellectual Property (IP) needs to be protected as well. Chemists can find careers as patent agents or in the field of IP management, or innovation management at academic institutions, as well as business organisations.

To bolster employability, students can leverage internships, workshops, and industrial training programmes to gain hands-on experience. Networking with professionals, attending conferences, and seeking mentorship fortify industry connections. A proactive approach to continuing education and acquiring certifications ensures relevance in a rapidly evolving field. The Chemical Sciences present an expansive canvas of opportunities in India, fostering innovation, sustainability, and advancements across industries.

The writer is the COO, American Chemical Society (ACS).

Sourab Kulkarni

Today, informed decision making is key to succeeding in the competitive business arena. This requires reliable and comprehensive data and this is where the science of Business Statistics comes into play.

Business Statistics courses are new-age MBA courses that help students develop a strong foundation in data analysis and interpretation by teaching various statistical techniques and methods to acquire skills to collect, organise, analyse, and interpret data to identify trends, patterns, and relationships within a business context and make evidence-based decisions.

A strong understanding of Business Statistics can open up a wide range of career opportunities in fields

such as market research, financial analysis, operations management, and strategic planning.

Benefits

Today, mathematically tested decision-making abilities can improve operations and transform businesses over time. Business statisticians can ana-

Crunch those numbers

Students need to build a strong foundation in data analysis and interpretation, which is much in demand across businesses today



lyse data and eliminate under-performing marketing strategies to make proper plans for businesses to flourish. They can also reduce unnecessary pressure and allow people to focus on new projects, which can have a positive impact on the company.

Analysing data and identifying trends helps students think critically, approach problems methodically and derive meaningful conclusions. When students can successfully convey their findings and insights through data visualisation approaches, it gives them a competitive edge in the job market.

Today, a Business Statistics course is more than just an academic requirement; it is a portal to a world of opportunities and professional achievement. As organisations expand in the digital age, the relevance of statistical literacy grows, making a Business Statistics course a viable career option for future leaders.

The writer is an Assistant Professor, Operations Management, FORE School of Management, New Delhi

To do or not to do?



Is an MBA only for those eyeing a business management career, or does it have a broader relevance?

Arvind Sahay

An MBA goes beyond market expertise and emphasises crucial skills such as interpersonal communication, leadership, strategic thinking, problem-solving, time management, networking, teamwork, and critical and analytical thinking, all of which are essential in the professional and personal realms. However, how does one assess the necessity of doing an MBA? Here are some ways to evaluate the potential benefits of this path:

A common perception is that an MBA is strictly aligned with marketing and business management. However, in reality, it is applicable across a diverse range of sectors. Today, specialisations are available in domains such as Human Resources, International Business, Business Analytics, Tourism and Hospitality, Clinical Research Management, Aviation, Fashion and more with each offering unique perspectives and expertise relevant across industries.

Consider the professional who consistently delivers quality work but struggles to achieve full potential. The issue may not be lack of effort but may stem from communication barriers or an inability to effectively manage workloads. These challenges can be addressed by the multifaceted skillset one acquires through an MBA pro-

gramme, which prepares them to navigate workplace complexities with greater competence. It's a strategic investment in the human capital of oneself and offers an avenue to augment one's professional toolkit with essential lifelong skills.

Benefits

Enhancing career opportunities and making a name involves building connections with experts, creating a brand name, and increasing visibility. According to data collected by LinkedIn, 85% of jobs are filled through networking. Interactions with experts offer one perspective and knowledge about the domain and its current trends. An MBA provides opportunities to interact with such experts, attend workshops and seminars, thereby building connections. For one who aims to establish him/herself in the industry, an MBA is an apt choice.

For those who want to develop unique perspectives and skills, an MBA offers a supportive environ-

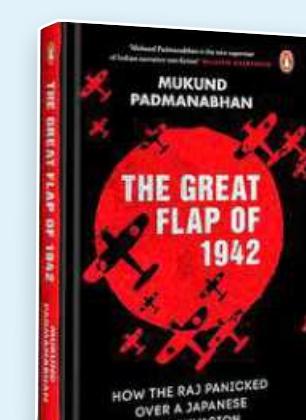
ment and toolkit to refine ideas, gain the support necessary for venture creation and enables interactions with mentors, training programmes through workshops and meetings with like-minded people.

Thus the shift calculator suggests that individuals who identify with the above situations may find an MBA aligning with their professional development goals. For others, alternative paths such as certification courses may provide better clarity.

An MBA is more than an educational pursuit; it's a transformative engagement that fortifies one's ability to scale professional heights. Assess your career goals and vision and see if an MBA aligns with it. This will ensure that the educational choice you make will be a strategic one that amplifies your potential in an ever-evolving job market.

The writer is the Director, Management Development Institute (MDI) Gurgaon

ON THE SHELF



The Great Flap of 1942: How the Raj panicked over a Japanese non-invasion

Between December 1941 and mid-1942, all of India was caught in a state of panic as a result of the British administration's mistaken belief that Japan was on the verge of launching a full-fledged invasion.

This led to a huge and largely unmapped exodus (of Indians and Europeans) from both sides of the coastline to 'safer' inland regions. This book demonstrates that the Raj cynically encouraged the exodus and contributed to the repeated cycles of rumour, panic and flight. The Great Flap of 1942 — as British bureaucrats in India referred to it — traces a broad narrative arc, starting with the Japanese attacks in South-East Asia. The assault on Malaya, the conquest of Singapore, the bombing and eventual occupation of Burma, and the Japanese Navy's foray into the Indian Ocean are examined in the light of the impact they had on India.

Author: Mukund Padmanabhan
Publisher: Penguin
Price: ₹599